

```
R4#
R4#show running-config
Building configuration...

Current configuration : 2870 bytes
!
! Last configuration change at 15:32:19 UTC Tue Jun 8 2010
! NVRAM config last updated at 15:34:06 UTC Tue Jun 8 2010
!
version 12.4
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R4
!
boot-start-marker
boot system flash:c1841-advipservicesk9-mz.124-25b.bin
boot-end-marker
!
no logging console
enable secret 5 $1$/jV1$Ypms8yDHgGeGsdSbjts//
!
no aaa new-model
ip cef
!
!
no ip dhcp use vrf connected
ip dhcp excluded-address 10.2.1.1 10.2.1.3
ip dhcp excluded-address 10.2.1.254
ip dhcp excluded-address 10.2.1.4 10.2.1.253
!
ip dhcp pool VLAN10
    network 10.2.1.0 255.255.255.0
    default-router 10.2.1.254
    domain-name netlearning.com.mx
    dns-server 209.65.200.243
!
!
ip multicast-routing
ip auth-proxy max-nodata-conns 3
ip admission max-nodata-conns 3
!
ipv6 unicast-routing
!
!
!
!
ip ftp username netlearning
ip ftp password netpass
!
!
!
!
```

```
interface Tunnel34
  no ip address
  ipv6 address 2026::34:2/122
  ipv6 enable
  ipv6 ospf 6 area 34
  tunnel source Serial0/1/0.34
  tunnel destination 10.1.1.9
  tunnel mode ipv6ip
!
interface Tunnel46
  no ip address
  ipv6 address 2026::2:1/122
  ipv6 enable
  ipv6 rip RIPNG enable
  tunnel source 10.1.4.5
  tunnel destination 10.1.4.6
!
interface FastEthernet0/0
  ip address 10.1.4.5 255.255.255.252
  ip pim sparse-dense-mode
  duplex auto
  speed auto
!
interface FastEthernet0/1
  ip address 10.1.4.9 255.255.255.252
  ip pim sparse-dense-mode
  duplex auto
  speed auto
!
interface Serial0/0/0
  no ip address
  clock rate 56000
!
interface Serial0/0/1
  no ip address
  clock rate 56000
!
interface Serial0/1/0
  no ip address
  encapsulation frame-relay
!
interface Serial0/1/0.34 point-to-point
  ip address 10.1.1.10 255.255.255.252
  ip pim sparse-dense-mode
  frame-relay interface-dlci 403
!
router eigrp 10
  redistribute ospf 1 metric 10000 10 255 1 1500
  network 10.1.4.5 0.0.0.0
  network 10.1.4.9 0.0.0.0
  metric weights 0 1 1 1 1 1
  no auto-summary
  eigrp router-id 4.4.4.4
!
```

```

router ospf 1
  router-id 4.4.4.4
  log-adjacency-changes
  area 34 nssa
  redistribute eigrp 10 subnets
  network 10.1.1.10 0.0.0.0 area 34
!
ip forward-protocol nd
ip route 0.0.0.0 0.0.0.0 192.168.20.1
!
!
ip http server
no ip http secure-server
!
ip access-list standard DENY_10
  deny 10.0.0.0 0.255.255.255
  permit any
ip access-list standard DENY_ALL
  deny any
ip access-list standard PERMIT_10
  permit 10.0.0.0 0.255.255.255
ip access-list standard PERMIT_ALL
  permit any
!
ipv6 router ospf 6
  router-id 4.4.4.4
  log-adjacency-changes
  redistribute connected
  redistribute rip RIPNG
!
ipv6 router rip RIPNG
  redistribute connected metric 5
  redistribute ospf 6 metric 5
!
!
!
!
control-plane
!
!
!
line con 0
  exec-timeout 0 0
line aux 0
line vty 0 4
  exec-timeout 0 0
  no login
!
scheduler allocate 20000 1000
ntp clock-period 17178049
ntp server 10.1.1.1
end

```

R4#

R4#ping 209.65.200.241

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 209.65.200.241, timeout is 2 seconds:
!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 224/225/228
ms

R4#

```
R4#ping 209.65.200.226
```

```
Type escape sequence to abort.
```

```
Sending 5, 100-byte ICMP Echos to 209.65.200.226, timeout is 2 seconds:  
!!!!
```

```
Success rate is 100 percent (5/5), round-trip min/avg/max = 224/227/236  
ms
```

```
R4#
```

R4#ping 209.65.200.225

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 209.65.200.225, timeout is 2 seconds:

!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 192/194/196
ms

R4#

R4#ping 10.1.1.1

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.1.1.1, timeout is 2 seconds:

!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 192/195/196
ms

R4#

R4#ping 10.1.1.2

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.1.1.2, timeout is 2 seconds:

!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 128/130/132
ms

R4#

```
R4#ping 10.1.1.5
```

```
Type escape sequence to abort.
```

```
Sending 5, 100-byte ICMP Echos to 10.1.1.5, timeout is 2 seconds:
```

```
!!!!
```

```
Success rate is 100 percent (5/5), round-trip min/avg/max = 128/129/132  
ms
```

```
R4#
```

R4#ping 10.1.1.6

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.1.1.6, timeout is 2 seconds:

!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 64/65/68 ms

R4#

```
R4#ping 10.1.1.9
```

```
Type escape sequence to abort.
```

```
Sending 5, 100-byte ICMP Echos to 10.1.1.9, timeout is 2 seconds:
```

```
!!!!
```

```
Success rate is 100 percent (5/5), round-trip min/avg/max = 64/64/68 ms
```

```
R4#
```

```
R4#ping 10.1.1.10
```

```
Type escape sequence to abort.
```

```
Sending 5, 100-byte ICMP Echos to 10.1.1.10, timeout is 2 seconds:
```

```
!!!!
```

```
Success rate is 100 percent (5/5), round-trip min/avg/max = 128/130/132  
ms
```

```
R4#
```

R4#ping 10.1.4.10

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.1.4.10, timeout is 2 seconds:

!!!!

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

R4#

R4#ping 10.1.4.9

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.1.4.9, timeout is 2 seconds:

!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/4 ms

R4#

R4#ping 10.1.4.6

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.1.4.6, timeout is 2 seconds:

!!!!!

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

R4#

R4#ping 10.1.4.5

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.1.4.5, timeout is 2 seconds:

!!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/1 ms

R4#

R4#ping 10.2.1.1

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.2.1.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/2/4 ms
R4#

R4#ping 10.2.2.2

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.2.2.2, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/2/4 ms

R4#

R4#ping 10.2.1.254

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.2.1.254, timeout is 2 seconds:

.!!!!

Success rate is 80 percent (4/5), round-trip min/avg/max = 1/2/4 ms

R4#

R4#ping 10.2.4.14

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.2.4.14, timeout is 2 seconds:

!!!!

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

R4#

R4#ping 10.2.4.13

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.2.4.13, timeout is 2 seconds:

!!!!

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

R4#

R4#ping 10.2.1.2

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.2.1.2, timeout is 2 seconds:

!!!!

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

R4#

```
R4#ping 10.2.2.1
```

```
Type escape sequence to abort.
```

```
Sending 5, 100-byte ICMP Echos to 10.2.2.1, timeout is 2 seconds:
```

```
!!!!
```

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

```
R4#
```

```
R4#ping 10.2.1.4
```

```
Type escape sequence to abort.
```

```
Sending 5, 100-byte ICMP Echos to 10.2.1.4, timeout is 2 seconds:
```

```
.....
```

```
Success rate is 0 percent (0/5)
```

```
R4#
```

R4#show ip interface brief

Interface	IP-Address	OK?	Method	Status
Protocol				
FastEthernet0/0	10.1.4.5	YES	NVRAM	up
up				
FastEthernet0/1	10.1.4.9	YES	NVRAM	up
up				
Serial0/0/0	unassigned	YES	NVRAM	down
down				
Serial0/0/1	unassigned	YES	NVRAM	down
down				
Serial0/1/0	unassigned	YES	NVRAM	up
up				
Serial0/1/0.34	10.1.1.10	YES	NVRAM	up
up				
Tunnel34	unassigned	YES	NVRAM	up
up				
Tunnel46	unassigned	YES	NVRAM	up
up				

R4#

R4#show ip route

Codes: C - connected, S - static, 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
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS
level-2
ia - IS-IS inter area, * - candidate default, U - per-user static
route
o - ODR, P - periodic downloaded static route

Gateway of last resort is 10.1.1.9 to network 0.0.0.0

10.0.0.0/8 is variably subnetted, 6 subnets, 2 masks
D 10.2.4.12/30 [90/120] via 10.1.4.10, 01:50:15, FastEthernet0/1
[90/120] via 10.1.4.6, 01:50:15, FastEthernet0/0
C 10.1.1.8/30 is directly connected, Serial0/1/0.34
C 10.1.4.8/30 is directly connected, FastEthernet0/1
D 10.2.1.0/24 [90/111] via 10.1.4.10, 00:18:37, FastEthernet0/1
[90/111] via 10.1.4.6, 00:18:37, FastEthernet0/0
D 10.2.2.0/24 [90/111] via 10.1.4.10, 01:42:39, FastEthernet0/1
C 10.1.4.4/30 is directly connected, FastEthernet0/0
O*IA 0.0.0.0/0 [110/65] via 10.1.1.9, 01:45:59, Serial0/1/0.34
R4#

6	0	2	0	0.00%	0.00%	0.00%	0	Timers
7	0	1	0	0.00%	0.00%	0.00%	0	OIR
Handler								
8	896	226	3964	0.00%	0.01%	0.00%	0	
Environmental mo								
9	0	1	0	0.00%	0.00%	0.00%	0	Crash
writer								
10	12	155	77	0.00%	0.00%	0.00%	0	ARP Input
11	0	2	0	0.00%	0.00%	0.00%	0	ATM Idle
Timer								
12	0	2	0	0.00%	0.00%	0.00%	0	AAA high-
capacit								
13	0	1	0	0.00%	0.00%	0.00%	0	
AAA_SERVER_DEADT								
14	0	1	0	0.00%	0.00%	0.00%	0	Policy
Manager								
15	0	8	0	0.00%	0.00%	0.00%	0	DDR Timers
16	4	2	2000	0.00%	0.00%	0.00%	0	Entity MIB
API								
17	16	275	58	0.00%	0.00%	0.00%	0	EEM ED
Syslog								
18	4	2025	1	0.00%	0.00%	0.00%	0	HC Counter
Timer								
19	0	9	0	0.00%	0.00%	0.00%	0	Serial
Backgroun								
20	0	1	0	0.00%	0.00%	0.00%	0	RO Notify
Timers								
21	0	2	0	0.00%	0.00%	0.00%	0	SMART
22	0	6746	0	0.00%	0.00%	0.00%	0	GraphIt
23	0	2	0	0.00%	0.00%	0.00%	0	Dialer
event								
24	0	1	0	0.00%	0.00%	0.00%	0	SERIAL
A'detect								
25	0	2	0	0.00%	0.00%	0.00%	0	XML Proxy
Client								
26	7460	1931	3863	0.24%	0.15%	0.49%	0	Exec
27	0	1	0	0.00%	0.00%	0.00%	0	Inode
Table Dest								
28	0	1	0	0.00%	0.00%	0.00%	0	Critical
Bkgnd								
29	16	5954	2	0.00%	0.00%	0.00%	0	Net
Background								
30	0	2	0	0.00%	0.00%	0.00%	0	IDB Work
31	0	499	0	0.00%	0.00%	0.00%	0	Logger
32	8	6743	1	0.00%	0.00%	0.00%	0	TTY
Background								
33	52	6751	7	0.00%	0.00%	0.00%	0	Per-Second
Jobs								
34	0	1	0	0.00%	0.00%	0.00%	0	AggMgr
Process								
35	0	1	0	0.00%	0.00%	0.00%	0	Token
Daemon								
36	0	1	0	0.00%	0.00%	0.00%	0	Transport
Port A								

37	4	2	2000	0.00%	0.00%	0.00%	0	ESWPPM
38	0	2	0	0.00%	0.00%	0.00%	0	Eswilp
Storm Con								
39	256	4	64000	0.00%	0.00%	0.00%	0	USB
Startup								
40	0	1	0	0.00%	0.00%	0.00%	0	
dev_device_inser								
41	0	1	0	0.00%	0.00%	0.00%	0	
dev_device_remov								
42	0	2	0	0.00%	0.00%	0.00%	0	SM Monitor
43	0	1	0	0.00%	0.00%	0.00%	0	IGMP
Snooping Pr								
44	0	1	0	0.00%	0.00%	0.00%	0	IGMP
Snooping Re								
45	0	1	0	0.00%	0.00%	0.00%	0	Platform
Compact								
46	0	226	0	0.00%	0.00%	0.00%	0	Call
Management								
47	0	6747	0	0.00%	0.00%	0.00%	0	PI MATM
Aging Pr								
48	0	2	0	0.00%	0.00%	0.00%	0	DTP
Protocol								
49	0	2	0	0.00%	0.00%	0.00%	0	dot1x
50	0	2	0	0.00%	0.00%	0.00%	0	AAA
Dictionary R								
51	0	2	0	0.00%	0.00%	0.00%	0	AAA Server
52	0	1	0	0.00%	0.00%	0.00%	0	AAA ACCT
Proc								
53	0	1	0	0.00%	0.00%	0.00%	0	ACCT
Periodic Pr								
54	80	1352	59	0.00%	0.00%	0.00%	0	CDP
Protocol								
55	1040	5861	177	0.00%	0.02%	0.00%	0	IP Input
56	0	1	0	0.00%	0.00%	0.00%	0	ICMP event
handl								
57	0	4	0	0.00%	0.00%	0.00%	0	TurboACL
58	0	2	0	0.00%	0.00%	0.00%	0	TurboACL
chunk								
59	4	14	285	0.00%	0.00%	0.00%	0	MOP
Protocols								
60	0	3	0	0.00%	0.00%	0.00%	0	PPP Hooks
62	0	1	0	0.00%	0.00%	0.00%	0	SSS
Manager								
63	0	901	0	0.00%	0.00%	0.00%	0	SSS Test
Client								
64	0	1	0	0.00%	0.00%	0.00%	0	SSS
Feature Mana								
65	0	26378	0	0.00%	0.01%	0.00%	0	SSS
Feature Time								
66	0	1	0	0.00%	0.00%	0.00%	0	VPDN call
manage								
67	0	1	0	0.00%	0.00%	0.00%	0	L2X Socket
proce								

68	0	1	0	0.00%	0.00%	0.00%	0	L2X SSS
manager								
69	0	2	0	0.00%	0.00%	0.00%	0	L2TP mgmt
daemon								
70	0	1	0	0.00%	0.00%	0.00%	0	X.25
Encaps Mana								
71	0	2	0	0.00%	0.00%	0.00%	0	EAPoUDP
Process								
72	0	2	0	0.00%	0.00%	0.00%	0	IP Host
Track Pr								
73	0	28	0	0.00%	0.00%	0.00%	0	IPv6 RIB
Redistr								
74	0	2	0	0.00%	0.00%	0.00%	0	KRB5 AAA
75	24	192	125	0.00%	0.00%	0.00%	0	IP
Background								
76	4	135	29	0.00%	0.00%	0.00%	0	IP RIB
Update								
77	0	2	0	0.00%	0.00%	0.00%	0	PPP IP
Route								
78	0	2	0	0.00%	0.00%	0.00%	0	PPP IPCP
79	8	9340	0	0.00%	0.01%	0.00%	0	CEF
process								
80	0	1	0	0.00%	0.00%	0.00%	0	Socket
Timers								
81	0	2	0	0.00%	0.00%	0.00%	0	L2MM
82	0	1	0	0.00%	0.00%	0.00%	0	MRD
83	0	1	0	0.00%	0.00%	0.00%	0	IGMP SN
84	0	1	0	0.00%	0.00%	0.00%	0	IP
Traceroute								
85	0	2	0	0.00%	0.00%	0.00%	0	RLM groups
Proce								
86	4	1	4000	0.00%	0.00%	0.00%	0	SNMP
Timers								
87	4	2	2000	0.00%	0.00%	0.00%	0	SCTP Main
Proces								
88	0	1	0	0.00%	0.00%	0.00%	0	IUA Main
Process								
89	0	6751	0	0.00%	0.00%	0.00%	0	RUDPV1
Main Proc								
90	0	1	0	0.00%	0.00%	0.00%	0	bsm_timers
91	0	6754	0	0.00%	0.00%	0.00%	0	
bsm_xmt_proc								
92	0	1	0	0.00%	0.00%	0.00%	0	CES Client
SVC R								
93	0	1	0	0.00%	0.00%	0.00%	0	TCP Timer
94	0	1	0	0.00%	0.00%	0.00%	0	TCP
Protocols								
95	0	1	0	0.00%	0.00%	0.00%	0	COPS
96	0	2	0	0.00%	0.00%	0.00%	0	Dialer
Forwarder								
97	0	113	0	0.00%	0.00%	0.00%	0	IP Cache
Ager								
98	0	114	0	0.00%	0.00%	0.00%	0	Adj
Manager								

99	0	2	0	0.00%	0.00%	0.00%	0	ATM OAM
Input								
100	0	2	0	0.00%	0.00%	0.00%	0	ATM OAM
TIMER								
101	0	24	0	0.00%	0.00%	0.00%	0	HTTP CORE
102	0	1	0	0.00%	0.00%	0.00%	0	RARP Input
103	0	1	0	0.00%	0.00%	0.00%	0	PAD InCall
104	0	2	0	0.00%	0.00%	0.00%	0	X.25
Background								
105	0	2	0	0.00%	0.00%	0.00%	0	PPP Bind
106	0	2	0	0.00%	0.00%	0.00%	0	PPP SSS
107	0	67499	0	0.00%	0.03%	0.02%	0	RBSCP
Background								
108	0	1352	0	0.00%	0.00%	0.00%	0	L2F
management d								
109	0	1	0	0.00%	0.00%	0.00%	0	Inspect
Timer								
110	80	1357	58	0.00%	0.00%	0.00%	0	OSPFv3-6
Hello								
111	0	23	0	0.00%	0.00%	0.00%	0	
Authentication P								
112	0	1	0	0.00%	0.00%	0.00%	0	Auth-proxy
AAA B								
113	0	1	0	0.00%	0.00%	0.00%	0	IPS Timer
114	0	2	0	0.00%	0.00%	0.00%	0	SDEE
Management								
115	0	1	0	0.00%	0.00%	0.00%	0	IPv6
Inspect Tim								
116	0	2	0	0.00%	0.00%	0.00%	0	URL filter
proc								
117	0	3	0	0.00%	0.00%	0.00%	0	Crypto HW
Proc								
118	0	2	0	0.00%	0.00%	0.00%	0	ENABLE AAA
119	0	1	0	0.00%	0.00%	0.00%	0	EM
Background Pr								
120	0	1	0	0.00%	0.00%	0.00%	0	Key chain
liveke								
121	0	2	0	0.00%	0.00%	0.00%	0	LINE AAA
122	0	2	0	0.00%	0.00%	0.00%	0	LOCAL AAA
123	0	2	0	0.00%	0.00%	0.00%	0	TPLUS
124	0	2	0	0.00%	0.00%	0.00%	0	VSP_MGR
125	0	1	0	0.00%	0.00%	0.00%	0	encrypt
proc								
126	0	3	0	0.00%	0.00%	0.00%	0	Crypto WUI
127	0	2	0	0.00%	0.00%	0.00%	0	Crypto
Support								
128	0	1	0	0.00%	0.00%	0.00%	0	
RPMS_PROC_MAIN								
129	0	1	0	0.00%	0.00%	0.00%	0	crypto
engine pr								
130	32	4	8000	0.00%	0.00%	0.00%	0	Crypto CA
131	0	1	0	0.00%	0.00%	0.00%	0	Crypto
PKI-CRL								
132	0	1	0	0.00%	0.00%	0.00%	0	Crypto SSL

133	0	4	0	0.00%	0.00%	0.00%	0	Crypto ACL
134	0	2	0	0.00%	0.00%	0.00%	0	CRYPTO QoS
proce								
135	0	1	0	0.00%	0.00%	0.00%	0	Crypto INT
136	0	4	0	0.00%	0.00%	0.00%	0	Crypto
IKMP								
137	252	340	741	0.00%	0.00%	0.00%	0	IPSEC key
engine								
138	0	1	0	0.00%	0.00%	0.00%	0	IPSEC
manual key								
139	0	1	0	0.00%	0.00%	0.00%	0	Crypto PAS
Proc								
140	0	1	0	0.00%	0.00%	0.00%	0	Crypto
Delete Ma								
141	4	2	2000	0.00%	0.00%	0.00%	0	Key Proc
142	0	6761	0	0.00%	0.00%	0.00%	0	Crypto
Device Up								
143	0	1	0	0.00%	0.00%	0.00%	0	Crypto
Hardware								
144	0	2	0	0.00%	0.00%	0.00%	0	Multi-ISA
Event								
145	0	1	0	0.00%	0.00%	0.00%	0	Multi-ISA
Cleanu								
146	0	1	0	0.00%	0.00%	0.00%	0	PM
Callback								
147	0	1	0	0.00%	0.00%	0.00%	0	DATA
Transfer Pr								
148	0	1	0	0.00%	0.00%	0.00%	0	DATA
Collector								
149	0	2	0	0.00%	0.00%	0.00%	0	AAA SEND
STOP EV								
150	0	3	0	0.00%	0.00%	0.00%	0	EEM ED CLI
151	0	2	0	0.00%	0.00%	0.00%	0	EEM ED
Counter								
152	0	2	0	0.00%	0.00%	0.00%	0	EEM ED
Interface								
153	0	3	0	0.00%	0.00%	0.00%	0	EEM ED
IOSWD								
154	0	2	0	0.00%	0.00%	0.00%	0	EEM ED
Memory-th								
155	0	2	0	0.00%	0.00%	0.00%	0	EEM ED
None								
156	0	2	0	0.00%	0.00%	0.00%	0	EM ED OIR
157	0	2	0	0.00%	0.00%	0.00%	0	EEM ED
SNMP								
158	0	116	0	0.00%	0.00%	0.00%	0	EEM ED
Timer								
159	4	1368	2	0.00%	0.00%	0.00%	0	EEM Server
160	0	677	0	0.00%	0.00%	0.00%	0	RMON
Recycle Pro								
161	0	2	0	0.00%	0.00%	0.00%	0	RMON
Deferred Se								
162	0	1	0	0.00%	0.00%	0.00%	0	Syslog
Traps								

163	8	2	4000	0.00%	0.00%	0.00%	0	VLAN
Manager								
164	0	57	0	0.00%	0.00%	0.00%	0	DHCPD
Timer								
165	4	2	2000	0.00%	0.00%	0.00%	0	EEM Policy
Direc								
166	0	253	0	0.00%	0.00%	0.00%	0	Syslog
167	0	1	0	0.00%	0.00%	0.00%	0	VPDN Scal
168	0	113	0	0.00%	0.00%	0.00%	0	DHCPD
Database								
169	0	1	0	0.00%	0.00%	0.00%	0	Net Input
170	0	1354	0	0.00%	0.00%	0.00%	0	Compute
load avg								
171	1792	113	15858	0.00%	0.01%	0.00%	0	Per-minute
Jobs								
172	4	234	17	0.00%	0.00%	0.00%	0	CEF
Scanner								
173	0	1	0	0.00%	0.00%	0.00%	0	tHUB
175	16	46	347	0.00%	0.00%	0.00%	0	DHCPD
Receive								
176	64	1045	61	0.00%	0.00%	0.00%	0	IPv6 Input
177	0	284	0	0.00%	0.00%	0.00%	0	IPv6 IDB
178	0	13	0	0.00%	0.00%	0.00%	0	IPv6 ND
179	24	27045	0	0.08%	0.02%	0.00%	0	MLD
180	16	6689	2	0.00%	0.00%	0.00%	0	OSPFv3-6
Router								
181	4	787	5	0.00%	0.00%	0.00%	0	IPv6 RIP
182	16	6801	2	0.00%	0.04%	0.05%	0	IGMP Input
183	4	67574	0	0.00%	0.03%	0.02%	0	Mwheel
Process								
184	136	8377	16	0.00%	0.03%	0.02%	0	PIM
Process								
185	960	1329	722	0.00%	0.00%	0.00%	0	FR LMI
186	8	67579	0	0.00%	0.02%	0.02%	0	FR
Broadcast Out								
187	0	678	0	0.00%	0.00%	0.00%	0	compute
load per								
188	0	121	0	0.00%	0.00%	0.00%	0	FR ARP
189	0	113	0	0.00%	0.00%	0.00%	0	FR
FRAGMENTATION								
190	0	339	0	0.00%	0.00%	0.00%	0	FR TUNNEL
191	0	1	0	0.00%	0.00%	0.00%	0	FRF9
manager								
192	0	1	0	0.00%	0.00%	0.00%	0	FRF9 timed
event								
194	48	6890	6	0.00%	0.00%	0.00%	0	NTP
195	0	22	0	0.00%	0.00%	0.00%	0	IP-EIGRP
Router								
196	388	3583	108	0.00%	0.00%	0.00%	0	IP-EIGRP:
PDM								
197	20	6726	2	0.00%	0.00%	0.00%	0	OSPF-1
Router								
198	224	5921	37	0.00%	0.01%	0.00%	0	IP-EIGRP:
HELLO								

R4#

```
R4#show interfaces
FastEthernet0/0 is up, line protocol is up
  Hardware is Gt96k FE, address is 0019.5578.1cb2 (bia 0019.5578.1cb2)
  Internet address is 10.1.4.5/30
  MTU 1500 bytes, BW 100000 Kbit/sec, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  Full-duplex, 100Mb/s, 100BaseTX/FX
  ARP type: ARPA, ARP Timeout 04:00:00
```

```
Last input 00:00:04, output 00:00:00, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
  2931 packets input, 288184 bytes
    Received 1864 broadcasts, 0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 watchdog
    0 input packets with dribble condition detected
  3495 packets output, 313821 bytes, 0 underruns
    0 output errors, 0 collisions, 4 interface resets
    0 unknown protocol drops
    0 babbles, 0 late collision, 0 deferred
    0 lost carrier, 0 no carrier
    0 output buffer failures, 0 output buffers swapped out
FastEthernet0/1 is up, line protocol is up
  Hardware is Gt96k FE, address is 0019.5578.1cb3 (bia 0019.5578.1cb3)
  Internet address is 10.1.4.9/30
  MTU 1500 bytes, BW 100000 Kbit/sec, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  Full-duplex, 100Mb/s, 100BaseTX/FX
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:02, output 00:00:03, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    2323 packets input, 233249 bytes
      Received 1803 broadcasts, 0 runts, 0 giants, 0 throttles
      0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
      0 watchdog
      0 input packets with dribble condition detected
    3198 packets output, 267630 bytes, 0 underruns
      0 output errors, 0 collisions, 5 interface resets
      0 unknown protocol drops
      0 babbles, 0 late collision, 0 deferred
      0 lost carrier, 0 no carrier
      0 output buffer failures, 0 output buffers swapped out
Serial0/0/0 is down, line protocol is down
  Hardware is GT96K Serial
  MTU 1500 bytes, BW 128 Kbit/sec, DLY 20000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation HDLC, loopback not set
  Keepalive set (10 sec)
  Last input never, output never, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
```

Queueing strategy: weighted fair
Output queue: 0/1000/64/0 (size/max total/threshold/drops)
Conversations 0/0/32 (active/max active/max total)
Reserved Conversations 0/0 (allocated/max allocated)
Available Bandwidth 96 kilobits/sec
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
0 packets input, 0 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
0 packets output, 0 bytes, 0 underruns
0 output errors, 0 collisions, 5 interface resets
0 unknown protocol drops
0 output buffer failures, 0 output buffers swapped out
0 carrier transitions
DCD=up DSR=up DTR=down RTS=down CTS=up

Serial0/0/1 is down, line protocol is down
Hardware is GT96K Serial
MTU 1500 bytes, BW 128 Kbit/sec, DLY 20000 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation HDLC, loopback not set
Keepalive set (10 sec)
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: weighted fair
Output queue: 0/1000/64/0 (size/max total/threshold/drops)
Conversations 0/0/32 (active/max active/max total)
Reserved Conversations 0/0 (allocated/max allocated)
Available Bandwidth 96 kilobits/sec
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
0 packets input, 0 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
0 packets output, 0 bytes, 0 underruns
0 output errors, 0 collisions, 5 interface resets
0 unknown protocol drops
0 output buffer failures, 0 output buffers swapped out
0 carrier transitions
DCD=up DSR=up DTR=down RTS=down CTS=up

Serial0/1/0 is up, line protocol is up
Hardware is GT96K Serial
MTU 1500 bytes, BW 1544 Kbit/sec, DLY 20000 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation FRAME-RELAY, loopback not set
Keepalive set (10 sec)
LMI enq sent 662, LMI stat recvd 664, LMI upd recvd 0, DTE LMI up
LMI enq recvd 0, LMI stat sent 0, LMI upd sent 0
LMI DLCI 1023 LMI type is CISCO frame relay DTE
FR SVC disabled, LAPF state down

Broadcast queue 0/64, broadcasts sent/dropped 1049/0, interface
broadcasts 937
Last input 00:00:00, output 00:00:00, output hang never
Last clearing of "show interface" counters 01:52:51
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: weighted fair
Output queue: 0/1000/64/0 (size/max total/threshold/drops)
Conversations 0/4/256 (active/max active/max total)
Reserved Conversations 0/0 (allocated/max allocated)
Available Bandwidth 1158 kilobits/sec
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
3212 packets input, 269489 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
3434 packets output, 280737 bytes, 0 underruns
0 output errors, 0 collisions, 4 interface resets
0 unknown protocol drops
0 output buffer failures, 0 output buffers swapped out
72 carrier transitions
DCD=up DSR=up DTR=up RTS=up CTS=up

Serial0/1/0.34 is up, line protocol is up
Hardware is GT96K Serial
Internet address is 10.1.1.10/30
MTU 1500 bytes, BW 1544 Kbit/sec, DLY 20000 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation FRAME-RELAY
Last clearing of "show interface" counters never
Tunnel34 is up, line protocol is up
Hardware is Tunnel
MTU 1514 bytes, BW 9 Kbit/sec, DLY 500000 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation TUNNEL, loopback not set
Keepalive not set
Tunnel source 10.1.1.10 (Serial0/1/0.34), destination 10.1.1.9
Tunnel protocol/transport IPv6/IP
Tunnel TTL 255
Fast tunneling enabled
Tunnel transmit bandwidth 8000 (kbps)
Tunnel receive bandwidth 8000 (kbps)
Last input 00:00:08, output 00:00:03, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 4
Queueing strategy: fifo
Output queue: 0/0 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
690 packets input, 84056 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
697 packets output, 70704 bytes, 0 underruns
0 output errors, 0 collisions, 0 interface resets
0 unknown protocol drops

0 output buffer failures, 0 output buffers swapped out
Tunnel46 is up, line protocol is up
Hardware is Tunnel
MTU 1514 bytes, BW 9 Kbit/sec, DLY 500000 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation TUNNEL, loopback not set
Keepalive not set
Tunnel source 10.1.4.5, destination 10.1.4.6
Tunnel protocol/transport GRE/IP
Key disabled, sequencing disabled
Checksumming of packets disabled
Tunnel TTL 255
Fast tunneling enabled
Tunnel transmit bandwidth 8000 (kbps)
Tunnel receive bandwidth 8000 (kbps)
Last input 00:00:00, output 00:00:01, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 29
Queueing strategy: fifo
Output queue: 0/0 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
244 packets input, 28284 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
268 packets output, 39700 bytes, 0 underruns
0 output errors, 0 collisions, 0 interface resets
0 unknown protocol drops
0 output buffer failures, 0 output buffers swapped out

R4#

R4#show cdp neighbors

Capability Codes: R - Router, T - Trans Bridge, B - Source Route Bridge
S - Switch, H - Host, I - IGMP, r - Repeater

Device ID	Local Intrfce	Holdtme	Capability	Platform	Port
ID					
R3	Ser 0/1/0.34	178	R S I	2811	Ser
0/2/0.34					
DSW1	Fas 0/0	128	R S I	WS-C3550-	Fas
0/1					
DSW2	Fas 0/1	172	R S I	WS-C3550-	Fas
0/1					
R4#					

R4#show cdp neighbors detail

Device ID: R3

Entry address(es):

IP address: 10.1.1.9

Platform: Cisco 2811, Capabilities: Router Switch IGMP

Interface: Serial0/1/0.34, Port ID (outgoing port): Serial0/2/0.34

Holdtime : 169 sec

Version :

Cisco IOS Software, 2800 Software (C2800NM-ADVIPSERVICESK9-M), Version 12.4(22)T2, RELEASE SOFTWARE (fc4)

Technical Support: <http://www.cisco.com/techsupport>

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Compiled Fri 19-Jun-09 15:34 by prod_rel_team

advertisement version: 2

VTP Management Domain: ''

Device ID: DSW1

Entry address(es):

IP address: 10.1.4.6

Platform: Cisco WS-C3550-24, Capabilities: Router Switch IGMP

Interface: FastEthernet0/0, Port ID (outgoing port): FastEthernet0/1

Holdtime : 120 sec

Version :

Cisco IOS Software, C3550 Software (C3550-IPSERVICESK9-M), Version 12.2(44)SE6, RELEASE SOFTWARE (fc1)

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Compiled Mon 09-Mar-09 20:28 by gereddy

advertisement version: 2
Protocol Hello: OUI=0x00000C, Protocol ID=0x0112; payload len=27,
value=00000000FFFFFFFFF010221FF0000000000000000DBDE36E00FF0000
VTP Management Domain: 'netlearning'
Duplex: full

Device ID: DSW2
Entry address(es):
 IP address: 10.1.4.10
Platform: Cisco WS-C3550-24-PWR, Capabilities: Router Switch IGMP
Interface: FastEthernet0/1, Port ID (outgoing port): FastEthernet0/1
Holdtime : 164 sec

Version :
Cisco IOS Software, C3550 Software (C3550-IPSERVICESK9-M), Version
12.2(44)SE6, RELEASE SOFTWARE (fc1)
Copyright (c) 1986-2009 by Cisco Systems, Inc.
Compiled Mon 09-Mar-09 20:28 by gereddy

advertisement version: 2
Protocol Hello: OUI=0x00000C, Protocol ID=0x0112; payload len=27,
value=00000000FFFFFFFFF010221FF0000000000000000BFD20BA00FF0000
VTP Management Domain: 'netlearning'
Duplex: full

R4#

```
R4#show frame-relay map
Serial0/1/0.34 (up): point-to-point dlci, dlci 403(0x193,0x6430),
broadcast
                status defined, active
R4#
```

```
R4#show ip interface
FastEthernet0/0 is up, line protocol is up
  Internet address is 10.1.4.5/30
  Broadcast address is 255.255.255.255
  Address determined by non-volatile memory
  MTU is 1500 bytes
  Helper address is not set
  Directed broadcast forwarding is disabled
  Multicast reserved groups joined: 224.0.0.1 224.0.0.2 224.0.0.22
  224.0.0.13
    224.0.0.10
  Outgoing access list is not set
  Inbound access list is not set
  Proxy ARP is enabled
  Local Proxy ARP is disabled
  Security level is default
  Split horizon is enabled
  ICMP redirects are always sent
  ICMP unreachable are always sent
  ICMP mask replies are never sent
  IP fast switching is enabled
  IP fast switching on the same interface is disabled
  IP Flow switching is disabled
  IP CEF switching is enabled
  IP CEF Fast switching turbo vector
  IP multicast fast switching is enabled
  IP multicast distributed fast switching is disabled
  IP route-cache flags are Fast, CEF
  Router Discovery is disabled
  IP output packet accounting is disabled
  IP access violation accounting is disabled
  TCP/IP header compression is disabled
  RTP/IP header compression is disabled
  Policy routing is disabled
  Network address translation is disabled
  BGP Policy Mapping is disabled
  WCCP Redirect outbound is disabled
  WCCP Redirect inbound is disabled
  WCCP Redirect exclude is disabled
FastEthernet0/1 is up, line protocol is up
  Internet address is 10.1.4.9/30
  Broadcast address is 255.255.255.255
  Address determined by non-volatile memory
  MTU is 1500 bytes
```

Helper address is not set
Directed broadcast forwarding is disabled
Multicast reserved groups joined: 224.0.0.1 224.0.0.2 224.0.0.22
224.0.0.13
 224.0.0.10
Outgoing access list is not set
Inbound access list is not set
Proxy ARP is enabled
Local Proxy ARP is disabled
Security level is default
Split horizon is enabled
ICMP redirects are always sent
ICMP unreachable are always sent
ICMP mask replies are never sent
IP fast switching is enabled
IP fast switching on the same interface is disabled
IP Flow switching is disabled
IP CEF switching is enabled
IP CEF Fast switching turbo vector
IP multicast fast switching is enabled
IP multicast distributed fast switching is disabled
IP route-cache flags are Fast, CEF
Router Discovery is disabled
IP output packet accounting is disabled
IP access violation accounting is disabled
TCP/IP header compression is disabled
RTP/IP header compression is disabled
Policy routing is disabled
Network address translation is disabled
BGP Policy Mapping is disabled
WCCP Redirect outbound is disabled
WCCP Redirect inbound is disabled
WCCP Redirect exclude is disabled
Serial0/0/0 is down, line protocol is down
 Internet protocol processing disabled
Serial0/0/1 is down, line protocol is down
 Internet protocol processing disabled
Serial0/1/0 is up, line protocol is up
 Internet protocol processing disabled
Serial0/1/0.34 is up, line protocol is up
 Internet address is 10.1.1.10/30
 Broadcast address is 255.255.255.255
 Address determined by non-volatile memory
 MTU is 1500 bytes
 Helper address is not set
 Directed broadcast forwarding is disabled
 Multicast reserved groups joined: 224.0.0.1 224.0.0.2 224.0.0.22
224.0.0.13
 224.0.0.5
Outgoing access list is not set
Inbound access list is not set
Proxy ARP is enabled
Local Proxy ARP is disabled
Security level is default

Split horizon is enabled
ICMP redirects are always sent
ICMP unreachable are always sent
ICMP mask replies are never sent
IP fast switching is enabled
IP fast switching on the same interface is enabled
IP Flow switching is disabled
IP CEF switching is enabled
IP CEF Fast switching turbo vector
IP multicast fast switching is enabled
IP multicast distributed fast switching is disabled
IP route-cache flags are Fast, CEF
Router Discovery is disabled
IP output packet accounting is disabled
IP access violation accounting is disabled
TCP/IP header compression is disabled
RTP/IP header compression is disabled
Policy routing is disabled
Network address translation is disabled
BGP Policy Mapping is disabled
WCCP Redirect outbound is disabled
WCCP Redirect inbound is disabled
WCCP Redirect exclude is disabled
Tunnel34 is up, line protocol is up
 Internet protocol processing disabled
Tunnel46 is up, line protocol is up
 Internet protocol processing disabled
R4#

R4#show ip cef

Prefix	Next Hop	Interface
0.0.0.0/0	10.1.1.9	Serial0/1/0.34
0.0.0.0/8	drop	
0.0.0.0/32	receive	
10.1.1.8/30	attached	Serial0/1/0.34
10.1.1.8/32	receive	
10.1.1.10/32	receive	
10.1.1.11/32	receive	
10.1.4.4/30	attached	FastEthernet0/0
10.1.4.4/32	receive	
10.1.4.5/32	receive	
10.1.4.6/32	10.1.4.6	FastEthernet0/0
10.1.4.7/32	receive	
10.1.4.8/30	attached	FastEthernet0/1
10.1.4.8/32	receive	
10.1.4.9/32	receive	
10.1.4.10/32	10.1.4.10	FastEthernet0/1
10.1.4.11/32	receive	
10.2.1.0/24	10.1.4.10	FastEthernet0/1
	10.1.4.6	FastEthernet0/0
10.2.2.0/24	10.1.4.10	FastEthernet0/1
10.2.4.12/30	10.1.4.10	FastEthernet0/1
	10.1.4.6	FastEthernet0/0
127.0.0.0/8	drop	
224.0.0.0/4	0.0.0.0	
224.0.0.0/24	receive	
240.0.0.0/4	drop	
255.255.255.255/32	receive	

R4#

R4#show tcp statistics

Rcvd: 0 Total, 0 no port

0 checksum error, 0 bad offset, 0 too short

0 packets (0 bytes) in sequence

0 dup packets (0 bytes)

0 partially dup packets (0 bytes)

0 out-of-order packets (0 bytes)

0 packets (0 bytes) with data after window

0 packets after close

0 window probe packets, 0 window update packets

0 dup ack packets, 0 ack packets with unsend data

0 ack packets (0 bytes)

Sent: 0 Total, 0 urgent packets

0 control packets (including 0 retransmitted)

0 data packets (0 bytes)

0 data packets (0 bytes) retransmitted

0 data packets (0 bytes) fastretransmitted

0 ack only packets (0 delayed)

```
0 window probe packets, 0 window update packets
0 Connections initiated, 0 connections accepted, 0 connections
established
0 Connections closed (including 0 dropped, 0 embryonic dropped)
0 Total rxmt timeout, 0 connections dropped in rxmt timeout
0 Keepalive timeout, 0 keepalive probe, 0 Connections dropped in
keepalive
R4#
```

```
R4#show ip protocols
Routing Protocol is "eigrp 10"
  Outgoing update filter list for all interfaces is not set
```

Incoming update filter list for all interfaces is not set
Default networks flagged in outgoing updates
Default networks accepted from incoming updates
EIGRP metric weight K1=1, K2=1, K3=1, K4=1, K5=1
EIGRP maximum hopcount 100
EIGRP maximum metric variance 1
Redistributing: eigrp 10, ospf 1
EIGRP NSF-aware route hold timer is 240s
Automatic network summarization is not in effect
Maximum path: 4
Routing for Networks:
 10.1.4.5/32
 10.1.4.9/32
Routing Information Sources:
 Gateway Distance Last Update
 10.1.4.10 90 00:20:12
 10.1.4.6 90 00:20:12
Distance: internal 90 external 170

Routing Protocol is "ospf 1"
 Outgoing update filter list for all interfaces is not set
 Incoming update filter list for all interfaces is not set
 Router ID 4.4.4.4
 It is an autonomous system boundary router
 Redistributing External Routes from,
 eigrp 10, includes subnets in redistribution
 Number of areas in this router is 1. 0 normal 0 stub 1 nssa
 Maximum path: 4
 Routing for Networks:
 10.1.1.10 0.0.0.0 area 34
Reference bandwidth unit is 100 mbps
Routing Information Sources:
 Gateway Distance Last Update
 3.3.3.3 110 01:47:39
Distance: (default is 110)

R4#

```
R4#show access-lists
Standard IP access list DENY_10
  10 deny 10.0.0.0, wildcard bits 0.255.255.255
  20 permit any
Standard IP access list DENY_ALL
  10 deny any
Standard IP access list PERMIT_10
  10 permit 10.0.0.0, wildcard bits 0.255.255.255
Standard IP access list PERMIT_ALL
  10 permit any
R4#
```

```
R4#show ip route eigrp
    10.0.0.0/8 is variably subnetted, 6 subnets, 2 masks
D       10.2.4.12/30 [90/120] via 10.1.4.10, 01:52:12, FastEthernet0/1
          [90/120] via 10.1.4.6, 01:52:12, FastEthernet0/0
D       10.2.1.0/24 [90/111] via 10.1.4.10, 00:20:34, FastEthernet0/1
          [90/111] via 10.1.4.6, 00:20:34, FastEthernet0/0
D       10.2.2.0/24 [90/111] via 10.1.4.10, 01:44:36, FastEthernet0/1
R4#
```

R4#show ip eigrp neighbors

IP-EIGRP neighbors for process 10

H	Address	Interface	Hold	Uptime	SRTT	RTO	Q
Seq			(sec)		(ms)		Cnt
Num							
1	10.1.4.10	Fa0/1	13	01:52:30	1	200	0
113							
0	10.1.4.6	Fa0/0	11	01:53:04	1	200	0
133							

R4#

```
R4#show ip eigrp interfaces
```

```
IP-EIGRP interfaces for process 10
```

		Xmit Queue	Mean	Pacing Time	Multicast
Pending					
Interface	Peers	Un/Reliable	SRTT	Un/Reliable	Flow Timer
Routes					
Fa0/0	1	0/0	1	0/1	50
0					
Fa0/1	1	0/0	1	0/1	50
0					

```
R4#
```

```
R4#show ip ospf neighbor
```

Neighbor ID	Pri	State	Dead Time	Address
Interface				
3.3.3.3	0	FULL/ -	00:00:36	10.1.1.9
Serial0/1/0.34				

```
R4#
```

```
R4#show ip ospf interface
Serial0/1/0.34 is up, line protocol is up
  Internet Address 10.1.1.10/30, Area 34
  Process ID 1, Router ID 4.4.4.4, Network Type POINT_TO_POINT, Cost: 64
  Transmit Delay is 1 sec, State POINT_TO_POINT
  Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
    oob-resync timeout 40
    Hello due in 00:00:04
  Supports Link-local Signaling (LLS)
  Index 1/1, flood queue length 0
  Next 0x0(0)/0x0(0)
  Last flood scan length is 5, maximum is 5
  Last flood scan time is 0 msec, maximum is 0 msec
  Neighbor Count is 1, Adjacent neighbor count is 1
    Adjacent with neighbor 3.3.3.3
  Suppress hello for 0 neighbor(s)
R4#
```

R4#show ip ospf database

OSPF Router with ID (4.4.4.4) (Process ID 1)

Router Link States (Area 34)

Link ID count	ADV Router	Age	Seq#	Checksum	Link
3.3.3.3	3.3.3.3	551	0x80000010	0x00CA73	2
4.4.4.4	4.4.4.4	584	0x80000012	0x0063D4	2

Summary Net Link States (Area 34)

Link ID	ADV Router	Age	Seq#	Checksum
0.0.0.0	3.3.3.3	550	0x80000004	0x00D84E

Type-7 AS External Link States (Area 34)

Link ID	ADV Router	Age	Seq#	Checksum	Tag
10.1.4.4	4.4.4.4	584	0x80000007	0x00ED6C	0
10.1.4.8	4.4.4.4	584	0x80000007	0x00C590	0
10.2.1.0	4.4.4.4	584	0x80000005	0x00411E	0
10.2.2.0	4.4.4.4	584	0x80000005	0x003628	0
10.2.4.12	4.4.4.4	584	0x80000005	0x0095BD	0

R4#

```
R4#show ip route ospf
O*IA 0.0.0.0/0 [110/65] via 10.1.1.9, 01:48:45, Serial0/1/0.34
R4#
```

```
R4#show ip dhcp binding
```

```
Bindings from all pools not associated with VRF:
```

IP address	Client-ID/ Hardware address/ User name	Lease expiration	Type
------------	--	------------------	------

```
R4#
```

```
R4#show ip dhcp conflict
```

IP address	Detection method	Detection time	VRF
------------	------------------	----------------	-----

```
R4#
```

```
R4#show ip dhcp pool
```

```
Pool VLAN10 :
```

```
Utilization mark (high/low)      : 100 / 0
```

```
Subnet size (first/next)          : 0 / 0
```

```
Total addresses                   : 254
```

```
Leased addresses                  : 0
```

```
Pending event                     : none
```

```
1 subnet is currently in the pool :
```

Current index	IP address range	Leased
addresses		
10.2.1.1	10.2.1.1 - 10.2.1.254	0

```
R4#
```