

```
R3#
R3#
R3#show running-config
Building configuration...
```

```
Current configuration : 2528 bytes
```

```
!
version 12.4
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R3
!
boot-start-marker
boot-end-marker
!
logging message-counter syslog
enable secret 5 $1$p7Bj$JJYJbGT9E4K7craiToCfl.
!
no aaa new-model
!
dot11 syslog
ip source-route
!
!
ip cef
!
!
ip multicast-routing
ipv6 unicast-routing
ipv6 cef
!
multilink bundle-name authenticated
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
```

```
!  
!  
!  
voice-card 0  
!  
!  
!  
!  
!  
archive  
  log config  
  hidekeys  
!  
!  
!  
!  
!  
!  
!  
!  
!  
interface Tunnel34  
  no ip address  
  ipv6 address 2026::34:1/122  
  ipv6 enable  
  ipv6 ospf 6 area 34  
  tunnel source 10.1.1.9  
  tunnel destination 10.1.1.10  
  tunnel mode ipv6ip  
!  
interface FastEthernet0/0  
  no ip address  
  shutdown  
  duplex auto  
  speed auto  
!  
interface FastEthernet0/1  
  no ip address  
  shutdown  
  duplex auto  
  speed auto  
!  
interface Serial0/0/0  
  no ip address  
!  
interface Serial0/0/1  
  no ip address  
  clock rate 2000000  
!  
interface Serial0/1/0  
  no ip address  
  shutdown  
!  
interface Serial0/2/0
```

```
no ip address
encapsulation frame-relay
shutdown
!
interface Serial0/2/0.23 point-to-point
 ip address 10.1.1.6 255.255.255.252
 ip pim sparse-dense-mode
 snmp trap link-status
 ipv6 address 2026::1:2/122
 ipv6 enable
 ipv6 ospf 6 area 0
 frame-relay interface-dlci 302
!
interface Serial0/2/0.34 point-to-point
 ip address 10.1.1.9 255.255.255.252
 ip pim sparse-dense-mode
 snmp trap link-status
 frame-relay interface-dlci 304
!
interface Serial0/3/0
 no ip address
!
router ospf 1
 router-id 3.3.3.3
 log-adjacency-changes
 area 34 nssa no-summary
 passive-interface Serial0/2/0
 network 10.1.1.2 0.0.0.0 area 0
 network 10.1.1.8 0.0.0.3 area 34
 network 10.3.3.1 0.0.0.0 area 0
 network 10.3.3.3 0.0.0.0 area 0
 network 0.0.0.0 255.255.255.255 area 0
!
ip forward-protocol nd
no 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
!
access-list 1 deny 10.2.1.0 0.0.0.255
access-list 1 permit any
ipv6 router ospf 6
 log-adjacency-changes
!
```

```
!  
!  
!  
!  
!  
!  
control-plane  
!  
!  
!  
ccm-manager fax protocol cisco  
!  
mgcp fax t38 ecm  
mgcp behavior g729-variants static-pt  
!  
!  
!  
!  
!  
line con 0  
  exec-timeout 0 0  
  logging synchronous  
line aux 0  
line vty 0 4  
  exec-timeout 0 0  
  password cisco  
  login  
!  
scheduler allocate 20000 1000  
ntp server 10.1.1.1  
ntp peer 10.1.1.1  
end  
  
R3#
```

```
R3#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 0 percent (0/5)
```

```
R3#
```

```
R3#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 0 percent (0/5)
```

```
R3#
```

```
R3#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 0 percent (0/5)
```

```
R3#
```

```
R3#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 0 percent (0/5)
```

```
R3#
```

```
R3#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 0 percent (0/5)  
R3#
```

```
R3#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 0 percent (0/5)  
R3#
```

```
R3#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 0 percent (0/5)
```

```
R3#
```

```
R3#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 0 percent (0/5)
```

```
R3#
```

```
R3#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 0 percent (0/5)
```

```
R3#
```

```
R3#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 0 percent (0/5)
```

```
R3#
```

```
R3#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 0 percent (0/5)
```

```
R3#
```

```
R3#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 0 percent (0/5)
```

```
R3#
```

```
R3#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 0 percent (0/5)
```

```
R3#
```

```
R3#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 0 percent (0/5)  
R3#
```

```
R3#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 0 percent (0/5)  
R3#
```

```
R3#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 0 percent (0/5)
```

```
R3#
```

```
R3#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 0 percent (0/5)
```

```
R3#
```

```
R3#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 0 percent (0/5)
```

```
R3#
```

```
R3#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 0 percent (0/5)
```

```
R3#
```

```
R3#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 0 percent (0/5)
```

```
R3#
```

```
R3#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)
```

```
R3#
```

R3#show ip interface brief

Interface	IP-Address	OK?	Method	Status
FastEthernet0/0	unassigned	YES	NVRAM	administratively
down down				
FastEthernet0/1	unassigned	YES	NVRAM	administratively
down down				
Serial0/0/0	unassigned	YES	NVRAM	down
down				
Serial0/0/1	unassigned	YES	NVRAM	down
down				
Serial0/1/0	unassigned	YES	NVRAM	administratively
down down				
Serial0/2/0	unassigned	YES	NVRAM	administratively
down down				
Serial0/2/0.23	10.1.1.6	YES	NVRAM	administratively
down down				
Serial0/2/0.34	10.1.1.9	YES	NVRAM	administratively
down down				
Serial0/3/0	unassigned	YES	NVRAM	down
down				
Tunnel34	unassigned	YES	NVRAM	up
down				

R3#


```
R3#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 not set
```

```
R3#
```

R3#show processes cpu

CPU utilization for five seconds: 1%/0%; one minute: 1%; five minutes: 1%

PID	Runtime (ms)	Invoked	uSecs	5Sec	1Min	5Min	TTY	Process
1	12	69	173	0.00%	0.00%	0.00%	0	Chunk
Manager								
2	12	375	32	0.07%	0.04%	0.02%	0	Load Meter
3	1196	621	1925	0.00%	0.13%	0.15%	0	Exec
4	4	1	4000	0.00%	0.00%	0.00%	0	EDDRI_MAIN
5	2148	222	9675	0.00%	0.10%	0.10%	0	Check
heaps								
6	0	1	0	0.00%	0.00%	0.00%	0	Pool
Manager								
7	0	2	0	0.00%	0.00%	0.00%	0	Timers
8	0	1	0	0.00%	0.00%	0.00%	0	License
Client N								
9	0	25	0	0.00%	0.00%	0.00%	0	OSPF-1
Hello								
10	0	32	0	0.00%	0.00%	0.00%	0	IPC
Dynamic Cach								
11	0	1	0	0.00%	0.00%	0.00%	0	IPC Zone
Manager								
12	0	1872	0	0.00%	0.00%	0.00%	0	IPC
Periodic Tim								
13	0	1872	0	0.00%	0.00%	0.00%	0	IPC
Deferred Por								
14	0	1	0	0.00%	0.00%	0.00%	0	IPC Seat
Manager								
15	0	1	0	0.00%	0.00%	0.00%	0	IPC
BackPressure								
16	0	1	0	0.00%	0.00%	0.00%	0	OIR
Handler								
17	0	1	0	0.00%	0.00%	0.00%	0	Crash
writer								
18	0	64	0	0.00%	0.00%	0.00%	0	
Environmental mo								
19	0	1	0	0.00%	0.00%	0.00%	0	ARP Input

171	4	1	4000	0.00%	0.00%	0.00%	0 IPv6
Inspect Tim							
172	4	2	2000	0.00%	0.00%	0.00%	0 LFDp Input
Proc							
173	0	1	0	0.00%	0.00%	0.00%	0 PAD InCall
174	0	2	0	0.00%	0.00%	0.00%	0 X.25
Background							
175	0	2	0	0.00%	0.00%	0.00%	0 PPP Bind
176	0	2	0	0.00%	0.00%	0.00%	0 PPP SSS
177	0	1	0	0.00%	0.00%	0.00%	0 MQC Flow
Event B							
178	4	469297	0	0.71%	0.71%	0.71%	0 HQF Shaper
Backg							
179	0	18801	0	0.07%	0.02%	0.02%	0 RBSCP
Background							
180	0	1	0	0.00%	0.00%	0.00%	0 VPDN call
manage							
181	0	1	0	0.00%	0.00%	0.00%	0 CHKPT
EXAMPLE							
182	0	1	0	0.00%	0.00%	0.00%	0 CHKPT
DevTest							
183	0	1	0	0.00%	0.00%	0.00%	0 IPS
Process							
184	0	2	0	0.00%	0.00%	0.00%	0 IPS Auto
Update							
185	0	2	0	0.00%	0.00%	0.00%	0 SDEE
Management							
186	0	3678	0	0.00%	0.00%	0.00%	0 Inspect
process							
187	0	2	0	0.00%	0.00%	0.00%	0
cpf_process_msg_							
188	0	3678	0	0.00%	0.00%	0.00%	0 FW DP
Inspect pr							
189	0	3678	0	0.00%	0.00%	0.00%	0 CCE DP
URLF cach							
190	0	2	0	0.00%	0.00%	0.00%	0 URL filter
proc							
191	0	1	0	0.00%	0.00%	0.00%	0 Select
Timers							
192	32	2	16000	0.00%	0.00%	0.00%	0 HTTP
Process							
193	0	2	0	0.00%	0.00%	0.00%	0 CIFS API
Process							
194	4	2	2000	0.00%	0.00%	0.00%	0 CIFS Proxy
Proce							
195	8	3	2666	0.00%	0.00%	0.00%	0 Crypto HW
Proc							
196	0	77	0	0.00%	0.00%	0.00%	0
CRM_CALL_UPDATE_							
197	112	2	56000	0.00%	0.00%	0.00%	0
CCVPM_HDSPRM							
198	0	4	0	0.00%	0.00%	0.00%	0 HDA DSPRM
MAIN							
199	0	2	0	0.00%	0.00%	0.00%	0 STUN_APP

233	0	1	0	0.00%	0.00%	0.00%	0	VoIP AAA
234	0	2	0	0.00%	0.00%	0.00%	0	Dialog
Manager								
235	4	3	1333	0.00%	0.00%	0.00%	0	crypto
engine pr								
236	0	4	0	0.00%	0.00%	0.00%	0	Crypto CA
237	0	1	0	0.00%	0.00%	0.00%	0	Crypto
PKI-CRL								
238	0	1	0	0.00%	0.00%	0.00%	0	encrypt
proc								
239	0	2	0	0.00%	0.00%	0.00%	0	crypto sw
pk pro								
240	0	1	0	0.00%	0.00%	0.00%	0	Crypto INT
241	0	3	0	0.00%	0.00%	0.00%	0	Crypto IKE
Dispa								
242	4	3	1333	0.00%	0.00%	0.00%	0	Crypto
IKMP								
243	0	1	0	0.00%	0.00%	0.00%	0	IPSEC
manual key								
244	204	97	2103	0.00%	0.00%	0.00%	0	IPSEC key
engine								
245	0	2	0	0.00%	0.00%	0.00%	0	CRYPTO QoS
proce								
246	0	4	0	0.00%	0.00%	0.00%	0	Crypto ACL
247	0	1	0	0.00%	0.00%	0.00%	0	Crypto PAS
Proc								
248	0	1	0	0.00%	0.00%	0.00%	0	GDOI GM
Process								
249	0	1	0	0.00%	0.00%	0.00%	0	UNICAST
REKEY								
250	0	1	0	0.00%	0.00%	0.00%	0	UNICAST
REKEY AC								
251	0	1894	0	0.00%	0.00%	0.00%	0	Crypto
Device Up								
252	0	2	0	0.00%	0.00%	0.00%	0	Multi-ISA
Event								
253	0	1	0	0.00%	0.00%	0.00%	0	Multi-ISA
Cleanu								
254	0	1	0	0.00%	0.00%	0.00%	0	PM
Callback								
255	0	1	0	0.00%	0.00%	0.00%	0	Licensing
MIB pr								
256	0	9459	0	0.07%	0.01%	0.00%	0	Atheros
LED Ctro								
257	4	2	2000	0.00%	0.00%	0.00%	0	Control-
plane ho								
258	0	1	0	0.00%	0.00%	0.00%	0	DATA
Transfer Pr								
259	0	1	0	0.00%	0.00%	0.00%	0	DATA
Collector								
260	0	2	0	0.00%	0.00%	0.00%	0	AAA SEND
STOP EV								
261	0	2	0	0.00%	0.00%	0.00%	0	EEM ED
Resource								

262	0	2	0	0.00%	0.00%	0.00%	0	EEM ED
Routing								
263	0	3	0	0.00%	0.00%	0.00%	0	EEM ED
Track								
264	0	190	0	0.00%	0.00%	0.00%	0	RMON
Recycle Pro								
265	0	2	0	0.00%	0.00%	0.00%	0	RMON
Deferred Se								
266	0	1	0	0.00%	0.00%	0.00%	0	Syslog
Traps								
267	0	60	0	0.00%	0.00%	0.00%	0	Crypto
cTCP proc								
268	4	2	2000	0.00%	0.00%	0.00%	0	VLAN
Manager								
269	16	1857	8	0.00%	0.00%	0.00%	0	OSPF-1
Router								
271	0	1876	0	0.00%	0.00%	0.00%	0	trunk
conditioni								
272	0	1	0	0.00%	0.00%	0.00%	0	trunk
conditioni								
273	4	1896	2	0.00%	0.00%	0.00%	0	CME
Extension Mo								
274	0	1	0	0.00%	0.00%	0.00%	0	IP SLAs
Ethernet								
275	8	81	98	0.00%	0.00%	0.00%	0	EEM Server
276	0	2	0	0.00%	0.00%	0.00%	0	EEM Policy
Direc								
277	0	3	0	0.00%	0.00%	0.00%	0	EEM ED CLI
278	0	3	0	0.00%	0.00%	0.00%	0	EEM ED
Counter								
279	0	3	0	0.00%	0.00%	0.00%	0	EM ED GOLD
280	0	3	0	0.00%	0.00%	0.00%	0	EEM ED
Interface								
281	0	3	0	0.00%	0.00%	0.00%	0	EEM ED
IOSWD								
282	0	3	0	0.00%	0.00%	0.00%	0	EEM ED
Ipsla								
283	4	3	1333	0.00%	0.00%	0.00%	0	EEM ED
None								
284	0	2	0	0.00%	0.00%	0.00%	0	EEM ED Nf
285	0	3	0	0.00%	0.00%	0.00%	0	EEM ED OIR
286	0	3	0	0.00%	0.00%	0.00%	0	EEM ED RF
287	4	3	1333	0.00%	0.00%	0.00%	0	EEM ED
SNMP								
288	0	2	0	0.00%	0.00%	0.00%	0	EEM ED
SNMP Noti								
289	0	51	0	0.00%	0.00%	0.00%	0	EEM ED
Timer								
290	4	3	1333	0.00%	0.00%	0.00%	0	EEM ED
Test								
291	0	3	0	0.00%	0.00%	0.00%	0	EEM ED
Config								
292	0	3	0	0.00%	0.00%	0.00%	0	EEM ED Env
293	4	6	666	0.00%	0.00%	0.00%	0	Syslog

294	0	1	0	0.00%	0.00%	0.00%	0	VPDN Test
295	0	3	0	0.00%	0.00%	0.00%	0	EEM ED RPC
296	0	2	0	0.00%	0.00%	0.00%	0	Key Proc
297	0	1	0	0.00%	0.00%	0.00%	0	tHUB
299	0	3	0	0.00%	0.00%	0.00%	0	IPv6 RIB
Event H								
300	4	948	4	0.00%	0.00%	0.00%	0	CEF: IPv6
proces								
301	4	139	28	0.00%	0.00%	0.00%	0	IPv6 IDB
302	0	32	0	0.00%	0.00%	0.00%	0	IPv6 Input
303	0	1	0	0.00%	0.00%	0.00%	0	IPv6 ND
304	0	1	0	0.00%	0.00%	0.00%	0	IPv6
Address								
305	0	7576	0	0.07%	0.02%	0.00%	0	MLD
306	0	2	0	0.00%	0.00%	0.00%	0	OSPFv3-6
Router								
307	0	2	0	0.00%	0.00%	0.00%	0	FR LMI
308	0	2	0	0.00%	0.00%	0.00%	0	FR PVC
event man								
309	0	18936	0	0.00%	0.03%	0.01%	0	FR
Broadcast Out								
310	0	2	0	0.00%	0.00%	0.00%	0	FR ARP
311	0	32	0	0.00%	0.00%	0.00%	0	FR
FRAGMENTATION								
312	0	95	0	0.00%	0.00%	0.00%	0	FR TUNNEL
313	0	1	0	0.00%	0.00%	0.00%	0	FRF9
manager								
314	0	1	0	0.00%	0.00%	0.00%	0	FRF9 timed
event								
315	4	191	20	0.00%	0.00%	0.00%	0	compute
load per								
316	0	1896	0	0.00%	0.00%	0.00%	0	IGMP Input
317	0	37847	0	0.07%	0.12%	0.13%	0	PIM
Process								
318	0	18931	0	0.00%	0.02%	0.01%	0	Mwheel
Process								
320	0	1897	0	0.00%	0.00%	0.00%	0	NTP

R3#

```
R3#show interfaces
FastEthernet0/0 is administratively down, line protocol is down
  Hardware is MV96340 Ethernet, address is 0016.479a.f6e8 (bia
0016.479a.f6e8)
  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)
  Auto-duplex, Auto Speed, 100BaseTX/FX
  ARP type: ARPA, ARP Timeout 04:00:00
  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: 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
    0 packets input, 0 bytes
    Received 0 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
    0 packets output, 0 bytes, 0 underruns
    0 output errors, 0 collisions, 0 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 administratively down, line protocol is down
```

```
Hardware is MV96340 Ethernet, address is 0016.479a.f6e9 (bia
0016.479a.f6e9)
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)
Auto-duplex, Auto Speed, 100BaseTX/FX
ARP type: ARPA, ARP Timeout 04:00:00
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: 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
  0 packets input, 0 bytes
  Received 0 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
  0 packets output, 0 bytes, 0 underruns
  0 output errors, 0 collisions, 0 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 1544 Kbit/sec, DLY 20000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation HDLC, loopback not set
Keepalive set (10 sec)
CRC checking enabled
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 0/0/256 (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
  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, 4 interface resets
  0 unknown protocol drops
  0 output buffer failures, 0 output buffers swapped out
  0 carrier transitions
  DCD=down DSR=down DTR=up RTS=up CTS=down

Serial0/0/1 is down, line protocol is down
```

```
Hardware is GT96K Serial
MTU 1500 bytes, BW 1544 Kbit/sec, DLY 20000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation HDLC, loopback not set
Keepalive set (10 sec)
CRC checking enabled
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 0/0/256 (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
  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 administratively down, line protocol is down

```
Hardware is GT96K Serial
MTU 1500 bytes, BW 1544 Kbit/sec, DLY 20000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation HDLC, loopback not set
Keepalive set (10 sec)
CRC checking enabled
Last input 00:31:48, output 00:31:48, 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 0/1/256 (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
  1 packets input, 24 bytes, 0 no buffer
  Received 1 broadcasts, 0 runts, 0 giants, 0 throttles
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
  1 packets output, 24 bytes, 0 underruns
  0 output errors, 0 collisions, 3 interface resets
  0 unknown protocol drops
  0 output buffer failures, 0 output buffers swapped out
  1 carrier transitions
DCD=down DSR=down DTR=down RTS=down CTS=down
```

Serial0/2/0 is administratively down, line protocol is down

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)
CRC checking enabled
LMI enq sent 0, LMI stat recvd 0, LMI upd recvd 0, DTE LMI down
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 0/0, interface broadcasts

0

Last input never, output 00:31:49, output hang never
Last clearing of "show interface" counters 00:31:47
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 0/1/256 (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
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, 0 interface resets
0 unknown protocol drops
0 output buffer failures, 0 output buffers swapped out
0 carrier transitions
DCD=down DSR=up DTR=down RTS=down CTS=down

Serial0/2/0.23 is administratively down, line protocol is down

Hardware is GT96K Serial
Internet address is 10.1.1.6/30
MTU 1500 bytes, BW 1544 Kbit/sec, DLY 20000 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation FRAME-RELAY
CRC checking enabled
Last clearing of "show interface" counters never

Serial0/2/0.34 is administratively down, line protocol is down

Hardware is GT96K Serial
Internet address is 10.1.1.9/30
MTU 1500 bytes, BW 1544 Kbit/sec, DLY 20000 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation FRAME-RELAY
CRC checking enabled
Last clearing of "show interface" counters never

Serial0/3/0 is down, line protocol is down

Hardware is GT96K Serial
MTU 1500 bytes, BW 1544 Kbit/sec, DLY 20000 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation HDLC, loopback not set
Keepalive set (10 sec)

CRC checking enabled
Last input 00:31:16, output 00:31:22, 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 0/1/256 (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
1 packets input, 24 bytes, 0 no buffer
Received 1 broadcasts, 0 runts, 0 giants, 0 throttles
0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
5 packets output, 999 bytes, 0 underruns
0 output errors, 0 collisions, 66 interface resets
0 unknown protocol drops
0 output buffer failures, 0 output buffers swapped out
8 carrier transitions
DCD=down DSR=down DTR=up RTS=up CTS=down

Tunnel34 is up, line protocol is down
Hardware is Tunnel
MTU 17920 bytes, BW 100 Kbit/sec, DLY 50000 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation TUNNEL, loopback not set
Keepalive not set
Tunnel source 10.1.1.9, destination 10.1.1.10
Tunnel protocol/transport IPv6/IP
Tunnel TTL 255
Tunnel transport MTU 1480 bytes
Tunnel transmit bandwidth 8000 (kbps)
Tunnel receive bandwidth 8000 (kbps)
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: 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
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, 0 interface resets
0 unknown protocol drops
0 output buffer failures, 0 output buffers swapped out

R3#

```
R3#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#
```

```
R3#show cdp neighbors detail
```

```
R3#
```

```
R3#show frame-relay map
Serial0/2/0.23 (administratively down): point-to-point dlci, dlci
302(0x12E,0x48E0), broadcast
        status deleted
Serial0/2/0.34 (administratively down): point-to-point dlci, dlci
304(0x130,0x4C00), broadcast
        status deleted
R3#
```

```
R3#show ip interface
FastEthernet0/0 is administratively down, line protocol is down
  Internet protocol processing disabled
FastEthernet0/1 is administratively down, line protocol is down
  Internet protocol processing 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 administratively down, line protocol is down
  Internet protocol processing disabled
Serial0/2/0 is administratively down, line protocol is down
  Internet protocol processing disabled
Serial0/2/0.23 is administratively down, line protocol is down
  Internet address is 10.1.1.6/30
  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 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
Input features: MCI Check
WCCP Redirect outbound is disabled
WCCP Redirect inbound is disabled
WCCP Redirect exclude is disabled
Serial0/2/0.34 is administratively down, line protocol is down
Internet address is 10.1.1.9/30
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
224.0.0.5
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 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
Input features: MCI Check
WCCP Redirect outbound is disabled
WCCP Redirect inbound is disabled
WCCP Redirect exclude is disabled
Serial0/3/0 is down, line protocol is down
Internet protocol processing disabled
Tunnel34 is up, line protocol is down

```
Internet protocol processing disabled
R3#
```

```
R3#show ip cef
Prefix          Next Hop          Interface
0.0.0.0/0       no route
0.0.0.0/8       drop
0.0.0.0/32      receive
127.0.0.0/8     drop
224.0.0.0/4     multicast
224.0.0.0/24    receive
240.0.0.0/4     drop
255.255.255.255/32 receive
R3#
```

R3#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
R3#

```
R3#show ip protocols
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 3.3.3.3
  Number of areas in this router is 2. 1 normal 0 stub 1 nssa
  Maximum path: 4
  Routing for Networks:
    10.1.1.2 0.0.0.0 area 0
    10.1.1.8 0.0.0.3 area 34
    10.3.3.1 0.0.0.0 area 0
    10.3.3.3 0.0.0.0 area 0
    0.0.0.0 255.255.255.255 area 0
  Reference bandwidth unit is 100 mbps
  Passive Interface(s):
    Serial0/2/0
  Routing Information Sources:
    Gateway          Distance      Last Update
  Distance: (default is 110)
```

```
R3#
```

```
R3#show access-lists
Standard IP access list 1
 10 deny 10.2.1.0, wildcard bits 0.0.0.255
 20 permit any
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
R3#
```

```
R3#show ip ospf neighbor
```

```
R3#
```

```
R3#show ip ospf interface
```

```
Serial0/2/0.23 is administratively down, line protocol is down
  Internet Address 10.1.1.6/30, Area 0
  Process ID 1, Router ID 3.3.3.3, Network Type POINT_TO_POINT, Cost: 64
  Transmit Delay is 1 sec, State DOWN
  Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
    oob-resync timeout 40
Serial0/2/0.34 is administratively down, line protocol is down
  Internet Address 10.1.1.9/30, Area 34
  Process ID 1, Router ID 3.3.3.3, Network Type POINT_TO_POINT, Cost: 64
  Transmit Delay is 1 sec, State DOWN
  Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
    oob-resync timeout 40
R3#
```

```
R3#show ip ospf database
```

```
OSPF Router with ID (3.3.3.3) (Process ID 1)
```

```
Router Link States (Area 0)
```

Link ID count	ADV Router	Age	Seq#	Checksum Link
3.3.3.3	3.3.3.3	2003	0x80000001	0x00B872 0

```
Router Link States (Area 34)
```

Link ID count	ADV Router	Age	Seq#	Checksum Link
3.3.3.3	3.3.3.3	2003	0x80000001	0x005EC6 0

```
R3#
```

```
R3#show ip route ospf
```

```
R3#
```