Cisco Press CCIE Practical Studies
CCIE Practice Lab:

"The Lab, The Bad, The Ugly Solutions"

CISCO SYSTEMS

CCIE

CCIE™ Professional Development

CCIE Practical Studies
Volume I

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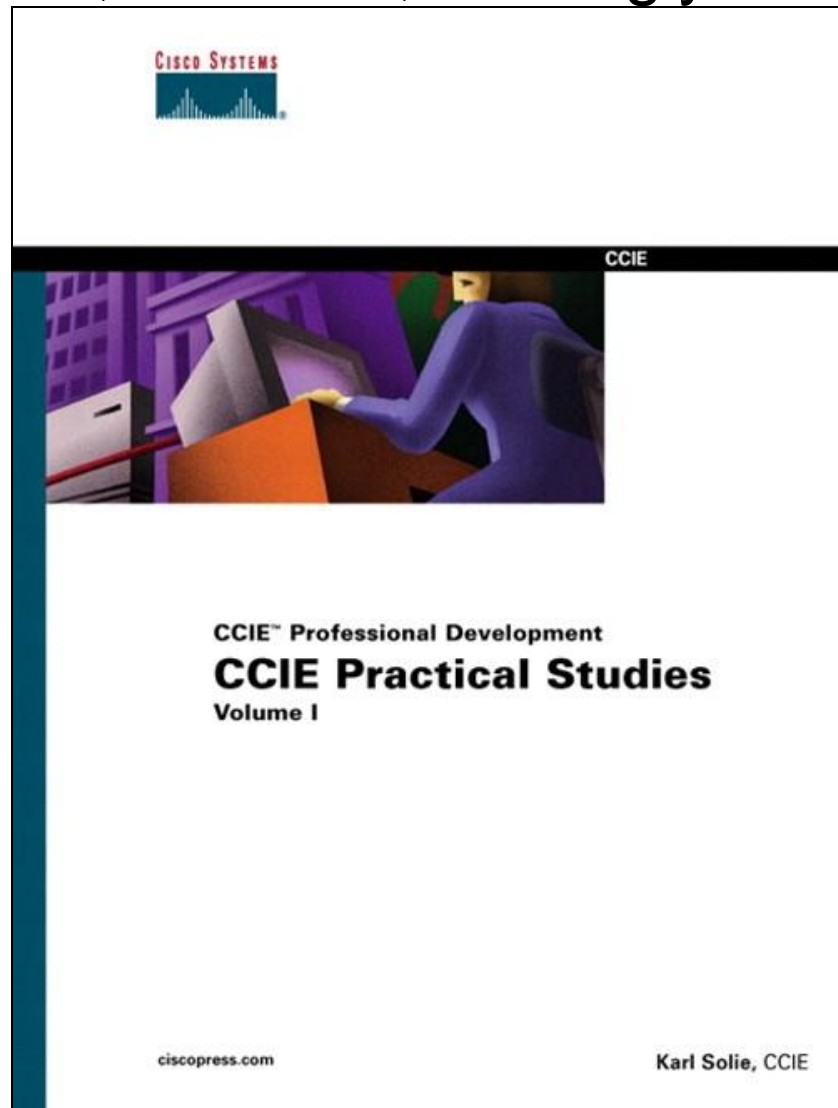
**Cisco Press CCIE Practical Studies
CCIE Practice Lab:
"The Lab, the Bad, the Ugly"**

LAB	Book Chapter	Book Page
The Lab, The Bad, The Ugly	18	1153

Overview
The Cisco Press CCIE Practical Studies Volume 1 book contains 5 simulated CCIE lab exams in chapter 18, and the solutions are not in the book. As promised in the book, the solutions are posted are www.ciscopress.com. This file contains the solutions to one of those labs.

Technical Details

The following table lists the interfaces on the routers used for the solution.

Table 53-1: Names and Interfaces used

CCIE PS Device Name	Interfaces Used	Frame-Relay Port	LAN Switch Port	VLAN or Ring Number
R1	Serial 0/0 Ethernet 0/0		FA 2/5	VLAN 1
R2	Serial 0/0 Serial 1/0 TokenRing 0/0	Serial 1/0	Port 3 (T/R)	Ring 2
R3	Serial 0/0 FastEthernet 0/0	Serial 0/0	FA 2/3	VLAN 1
R4	Serial 0/0 Serial 0/1 Ethernet 0/0 Bri 0/0	Serial 0/2	FA 2/4	VLAN 2
R6	Ethernet 0/0 Bri 0/0		FA 2/16	VLAN 1
R8	Serial 0/0 Serial 0/1 TokenRing 0/0	Serial 0/3	Port 15 (T/R)	Ring 8

In the following figure, the LAN cabling is detailed, with port numbers shown as well.
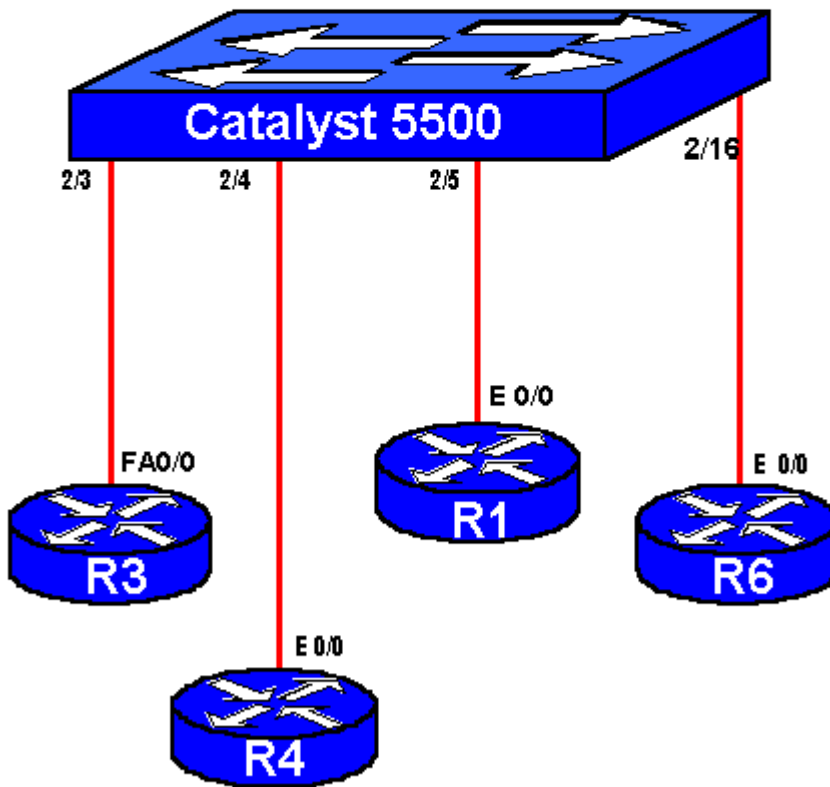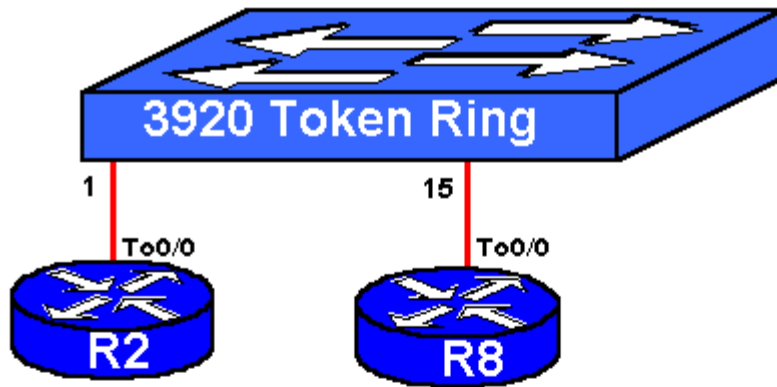
Lab Instruction Changes and Interpretations

With any complex lab, there might be various interpretations of the meaning of the requirement. Interpreting the problem statement is part of the difficulty of the lab. However, with the solution, it is sometimes helpful to more directly state how a requirement was interpreted. Also, there may be items in the lab exercises that may be changed at the next printing in order to correct typographic errors, unintended ambiguities, and the like. For this lab, the following lists the interpretations used when compiling these answers:

Minor changes for clarity and function:

Section II: 1. Assign the management interface of the token ring switch the IP address of 10.10.10.10.

Section V: 3. The ISDN should not excessively dial and only work during a loss of Frame Relay service.

Section VI: 5: Scratch the words in the first sentence, "out its Ethernet interface"

Section VIII: 1: Assign the queue the Frame Interface. Change the phrases "byte size" and "byte count" to "average packet size".

Corrections that should be made:

Section II: 3: "ETP updates" should be "VTP updates"

Section III: 2: R1 should be R2

Section VIII: 4: Erase this question

Section IX: 4: Erase this question

Section XI: 3: Change EIGRP to OSPF

Initial Configurations

The following configurations are for the Frame Relay Switch and Access Server.

Initial Configuration: FR Switch

```
! ! Cisco Press CCIE Practical Studies Volume I
!
! Initial Configuration
!
! Terminal Server
!
!
!
version 12.2
no service single-slot-reload-enable
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname TERM_SERVER
!
logging rate-limit console 10 except errors
enable password cisco
!
ip subnet-zero
!
!
no ip finger
no ip domain-lookup
ip host R1 2033 172.16.0.1
ip host TKN 2042 172.16.0.1
ip host ETH 2043 172.16.0.1
ip host FRS 2041 172.16.0.1
ip host R8 2040 172.16.0.1
ip host R7 2039 172.16.0.1
ip host R6 2038 172.16.0.1
ip host R5 2037 172.16.0.1
ip host R4 2036 172.16.0.1
ip host R3 2035 172.16.0.1
ip host R2 2034 172.16.0.1
!
no ip dhcp-client network-discovery
call rsvp-sync
!
!
!
!
!
```

```
!
!
!
interface Loopback0
ip address 172.16.0.1 255.255.255.0
!
interface FastEthernet0/0
no ip address
shutdown
duplex auto
speed auto
!
ip kerberos source-interface any
ip classless
ip http server
!
!
!
dial-peer cor custom
!
!
!
!
line con 0
exec-timeout 0 0
password cisco
logging synchronous
login
transport input none
line 33 48
no exec
transport input all
line aux 0
line vty 0 4
exec-timeout 0 0
password cisco
logging synchronous
login
line vty 5 15
login
!
no scheduler allocate
end
```

Initial Configuration: Access Server

```
! Cisco Press CCIE Practical Studies Volume I
!
! Initial Configuration
!
! Terminal Server
!
!
version 12.2
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname access_server
!
!
ip subnet-zero
!
!
no ip domain-lookup
ip host eth 2043 172.16.0.1
ip host FRS 2041 172.16.0.1
ip host R4 2040 172.16.0.1
ip host R7 2039 172.16.0.1
ip host R5 2037 172.16.0.1
ip host R6 2038 172.16.0.1
ip host R1 2036 172.16.0.1
ip host R2 2034 172.16.0.1
ip host R2 2033 172.16.0.1
ip host r3 2035 172.16.0.1
ip host tkn 2042 172.16.0.1
!
call rsvp-sync
!
!
!
!
!
!
!
!
interface Loopback0
ip address 172.16.0.1 255.255.255.0
!
interface FastEthernet0/0
no ip address
shutdown
duplex auto
```

```
speed auto
!
ip classless
ip http server
!
!
!
dial-peer cor custom
!
!
!
!
line con 0
line 33 48
no exec
transport input all
line aux 0
line vty 0 4
login
line vty 5 15
login
!
no scheduler allocate
end
```

Solutions:

The following configurations list a suggested solution to all parts of this lab.

Solution: Router1

```
! Cisco Press CCIE Practical Studies Volume I
!
! Solved Configuration
!
! Router 1 - r1
!
!
!
Building configuration...
Current configuration : 2125 bytes
!
version 12.2
no service single-slot-reload-enable
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname r1
!
logging rate-limit console 10 except errors
enable password cisco
!
ip subnet-zero
!
!
no ip finger
!
no ip dhcp-client network-discovery
ipx routing 0001.0001.0001
call rsvp-sync
!
!
!
!
!
!
dlsw local-peer peer-id 165.10.121.1 lf 1500 promiscuous
dlsw bridge-group 2
!
!
interface Loopback0
ip address 165.10.121.1 255.255.255.0
!
```

```
interface Ethernet0/0
ip address 165.10.6.1 255.255.255.0
half-duplex
ntp broadcast
ipx network 100
ipx sap-incremental eigrp 2001
bridge-group 2
!
interface Serial0/0
ip address 165.10.1.1 255.255.255.252
ip ospf authentication-key lbu
ntp broadcast
ipx network 10
no fair-queue
!
interface TokenRing0/0
no ip address
shutdown
ring-speed 16
!
interface BRI0/0
no ip address
shutdown
cdapi buffers regular 0
cdapi buffers raw 0
cdapi buffers large 0
!
interface Serial0/1
no ip address
shutdown
!
router ospf 2001
log-adjacency-changes detail
area 30 authentication message-digest
area 30 range 165.10.121.0 255.255.255.0
area 30 virtual-link 165.10.122.2
network 165.10.1.1 0.0.0.0 area 30
network 165.10.6.1 0.0.0.0 area 0
network 165.10.121.1 0.0.0.0 area 30
!
router bgp 2001
no synchronization
bgp log-neighbor-changes
neighbor 165.10.122.2 remote-as 5
neighbor 165.10.122.2 ebgp-multihop 5
neighbor 165.10.122.2 update-source Loopback0
neighbor 165.10.123.3 remote-as 2001
neighbor 165.10.123.3 update-source Loopback0
neighbor 165.10.124.4 remote-as 2010
```

```
neighbor 165.10.124.4 ebgp-multihop 5
neighbor 165.10.124.4 update-source Loopback0
neighbor 165.10.126.6 remote-as 2001
neighbor 165.10.126.6 update-source Loopback0
neighbor 165.10.126.6 route-reflector-client
!
ip kerberos source-interface any
ip classless
ip http server
!
!
!
!
ipx router eigrp 2001
network 100
network 10
!
!
ipx router rip
no network 100
no network 10
!
!
!
bridge 2 protocol ieee
!
dial-peer cor custom
!
!
!
!
line con 0
transport input none
line aux 0
line vty 5 15
!
no scheduler allocate
end
```

Solution: Router2

```
! Cisco Press CCIE Practical Studies Volume I
!
! Solved Configuration
!
! Router 2 - R2
!
!
!
version 12.2
no service single-slot-reload-enable
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname r2
!
netbios access-list host denylab deny lab*
netbios access-list host denylab permit -1
logging rate-limit console 10 except errors
enable password cisco
!
clock timezone CST -6
ip subnet-zero
!
!
no ip finger
!
no ip dhcp-client network-discovery
ipx routing 0002.0002.0002
call rsvp-sync
!
!
!
!
!
!
source-bridge ring-group 100
dlsw local-peer peer-id 165.10.122.2 lf 1500
dlsw remote-peer 0 fst 165.10.128.8 host-netbios-out denylab
dlsw remote-peer 0 tcp 165.10.126.6 lf 1500
dlsw remote-peer 0 tcp 165.10.121.1 lf 1500 backup-peer
165.10.126.6 linger 5
dlsw icanreach netbios-name ring2
!
!
interface Loopback0
ip address 165.10.122.2 255.255.255.0
```

```
!
interface Loopback20
ip address 172.16.1.1 255.255.255.0
!
interface Ethernet0/0
no ip address
shutdown
half-duplex
!
interface Serial0/0
ip address 165.10.3.2 255.255.255.0
encapsulation frame-relay
ip ospf priority 0
no fair-queue
frame-relay map ip 165.10.3.3 111 broadcast
frame-relay map ip 165.10.3.4 111 broadcast
!
interface TokenRing0/0
ip address 165.10.2.1 255.255.255.0
ipx network 20
ring-speed 16
source-bridge 2 1 100
source-bridge spanning
!
interface BRI0/0
no ip address
shutdown
cdapi buffers regular 0
cdapi buffers raw 0
cdapi buffers large 0
!
interface Serial0/1
no ip address
shutdown
!
interface Serial1/0
ip address 165.10.1.2 255.255.255.252
ip ospf authentication-key lbu
ntp broadcast
ipx network 10
clockrate 56000
!
interface Serial1/1
no ip address
shutdown
!
interface Serial1/2
no ip address
shutdown
```

```
!
interface Serial1/3
no ip address
shutdown
!
router ospf 2001
router-id 165.10.122.2
log-adjacency-changes
area 30 authentication message-digest
area 30 range 165.10.1.0 255.255.255.0
area 30 range 165.10.122.0 255.255.255.0
area 30 range 172.16.1.0 255.255.255.0
area 30 virtual-link 165.10.121.1
network 165.10.1.2 0.0.0.0 area 30
network 165.10.2.1 0.0.0.0 area 100
network 165.10.3.2 0.0.0.0 area 10
network 165.10.122.2 0.0.0.0 area 30
network 172.16.1.1 0.0.0.0 area 30
!
router bgp 5
no synchronization
bgp log-neighbor-changes
network 172.16.1.0 mask 255.255.255.0
neighbor 165.10.121.1 remote-as 2001
neighbor 165.10.121.1 ebgp-multihop 5
neighbor 165.10.121.1 update-source Loopback0
!
ip kerberos source-interface any
ip classless
ip http server
!
!
!
!
ipx router eigrp 2001
network 10
network 20
!
!
ipx router rip
no network 20
no network 10
!
!
ipx sap 7 fakeprint 20.00aa.00aa.0002 451 1
!
!
dial-peer cor custom
!
```

```
!
!
!
line con 0
transport input none
line aux 0
line vty 5 15
!
no scheduler allocate
ntp authentication-key 10 md5 060506324F41 7
ntp authenticate
ntp trusted-key 10
ntp master 6
end
```

Solution: Router3

```
! ! Cisco Press CCIE Practical Studies Volume I
!
! Solved Configuration
!
! Router 3 - R3
!
!
Building configuration...
Current configuration : 2001 bytes
!
version 12.2
no service single-slot-reload-enable
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname r3
!
logging rate-limit console 10 except errors
enable password cisco
!
ip subnet-zero
!
!
no ip finger
!
no ip dhcp-client network-discovery
ipx routing 0007.eba9.54e0
call rsvp-sync
!
!
!
!
!
!
!
!
interface Loopback0
ip address 165.10.123.3 255.255.255.0
!
interface Tunnel1
no ip address
ipx network A777
tunnel source 165.10.123.3
tunnel destination 165.10.124.4
!
interface FastEthernet0/0
```

```
ip address 165.10.6.3 255.255.255.0
duplex auto
speed auto
ipx network 100
ipx sap-incremental eigrp 2001
bridge-group 1
!
interface Serial0/0
ip address 165.10.3.3 255.255.255.0
encapsulation frame-relay
ip ospf priority 0
priority-group 1
frame-relay map bridge 121 broadcast
frame-relay map ip 165.10.3.2 121 broadcast
frame-relay map ip 165.10.3.4 121 broadcast
frame-relay lmi-type ansi
bridge-group 1
!
interface Serial0/1
no ip address
shutdown
!
router ospf 2001
log-adjacency-changes detail
area 10 range 165.10.123.0 255.255.255.0
network 165.10.3.3 0.0.0.0 area 10
network 165.10.6.3 0.0.0.0 area 0
network 165.10.123.3 0.0.0.0 area 10
!
router bgp 2001
no synchronization
bgp log-neighbor-changes
neighbor 165.10.121.1 remote-as 2001
neighbor 165.10.121.1 update-source Loopback0
neighbor 165.10.124.4 remote-as 2010
neighbor 165.10.124.4 ebgp-multihop 5
neighbor 165.10.124.4 update-source Loopback0
!
ip kerberos source-interface any
ip classless
ip http server
!
access-list 101 permit tcp any any eq telnet
access-list 101 permit eigrp any any
access-list 101 permit ospf any any
priority-list 1 protocol ip high list 101
priority-list 1 protocol ipx high
priority-list 1 protocol ip low tcp www
!
```

```
!
!
ipx router eigrp 2001
network A777
network 100
!
!
!
bridge 1 protocol ieee
!
dial-peer cor custom
!
!
!
!
line con 0
transport input none
line aux 0
line vty 5 15
!
no scheduler allocate
end
```

Solution: Router4

```
! Cisco Press CCIE Practical Studies Volume I
!
! Solved Configuration
!
! Router 4 - r4
!
!
!
Building configuration...
Current configuration : 3805 bytes
!
version 12.2
no service single-slot-reload-enable
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname r4
!
logging rate-limit console 10 except errors
enable password cisco
!
username r6 password 0 ccie
ip subnet-zero
!
!
no ip finger
!
no ip dhcp-client network-discovery
ipx routing 0007.eb7f.0240
isdn switch-type basic-ni
call rsvp-sync
!
!
!
!
!
bridge irb
!
!
!
interface Loopback0
ip address 165.10.124.4 255.255.255.0
!
interface Loopback20
ip address 200.128.1.1 255.255.255.0
!
```

```
interface Tunnel1
no ip address
ipx network A777
tunnel source 165.10.124.4
tunnel destination 165.10.123.3
!
interface Ethernet0/0
ip address 165.10.10.4 255.255.255.0
half-duplex
bridge-group 1
!
interface Serial0/0
no ip address
encapsulation frame-relay
custom-queue-list 1
frame-relay lmi-type ansi
!
interface Serial0/0.1 multipoint
backup interface BRI0/0
ip address 165.10.3.4 255.255.255.0
frame-relay map bridge 120 broadcast
frame-relay map ip 165.10.3.2 110 broadcast
frame-relay map ip 165.10.3.3 120 broadcast
bridge-group 1
!
interface Serial0/0.2 point-to-point
backup interface Serial0/1
ip address 165.10.16.4 255.255.255.0
frame-relay interface-dlci 130
!
interface Serial0/0.3 point-to-point
ipx network A160
frame-relay interface-dlci 140
!
interface TokenRing0/0
no ip address
shutdown
ring-speed 16
!
interface BRI0/0
ip address 165.10.192.4 255.255.255.0
encapsulation ppp
dialer idle-timeout 300
dialer map ip 165.10.192.6 name r6 broadcast 4085552060
dialer map ip 165.10.192.6 name r6 broadcast 4085552061
dialer load-threshold 5 either
dialer-group 1
isdn switch-type basic-ni
isdn spid1 4085520400101 5552040
```

```
isdn spid2 40855520410101 5552041
cdapi buffers regular 0
cdapi buffers raw 0
cdapi buffers large 0
ppp authentication chap
ppp multilink
!
interface Serial0/1
ip address 165.10.5.4 255.255.255.0
encapsulation ppp
delay 10000
ipx network 50
clockrate 148000
!
interface Serial1/0
no ip address
shutdown
!
interface Serial1/1
no ip address
shutdown
!
interface Serial1/2
no ip address
shutdown
!
interface Serial1/3
no ip address
shutdown
!
interface BVI1
no ip address
ipx network 170
!
router ospf 2001
log-adjacency-changes
redistribute igrp 2010 subnets
network 165.10.3.4 0.0.0.0 area 10
network 165.10.192.4 0.0.0.0 area 20
neighbor 165.10.3.2
neighbor 165.10.3.3
neighbor 165.10.3.2
default-metric 10
!
router igrp 2010
redistribute ospf 2001
passive-interface BRI0/0
network 165.10.0.0
default-metric 1000 100 254 1 1500
```

```
distance 150
!
router bgp 2010
no synchronization
bgp log-neighbor-changes
network 200.128.1.0
neighbor 165.10.121.1 remote-as 2001
neighbor 165.10.121.1 ebgp-multihop 5
neighbor 165.10.121.1 update-source Loopback0
neighbor 165.10.123.3 remote-as 2001
neighbor 165.10.123.3 ebgp-multihop 5
neighbor 165.10.123.3 update-source Loopback0
!
ip kerberos source-interface any
ip classless
ip http server
!
access-list 101 permit eigrp any any
access-list 101 permit ospf any any
access-list 102 permit tcp any eq www any
access-list 102 permit tcp any any eq www
queue-list 1 protocol ip 1 list 101
queue-list 1 protocol ipx 1
queue-list 1 protocol ip 2 list 102
queue-list 1 default 3
queue-list 1 queue 1 byte-count 3000
queue-list 1 queue 2 byte-count 1412
queue-list 1 queue 3 byte-count 9800
dialer-list 1 protocol ip permit
arp 165.10.10.101 2200.0001.0001 ARPA
arp 165.10.10.100 2200.0001.0001 ARPA
arp 165.10.10.102 2200.0001.0001 ARPA
!
!
!
ipx router eigrp 2001
network A777
!
!
!
bridge 1 protocol ieee
bridge 1 route ip
bridge 1 route ipx
no bridge 1 bridge ip
bridge 1 priority 1
!
dial-peer cor custom
!
!
```

```
!
!
line con 0
transport input none
line aux 0
line vty 5 15
!
no scheduler allocate
end
```

Solution: Router6

```
! ! Cisco Press CCIE Practical Studies Volume I
!
! Solved Configuration
!
! Router 6 - r6
!
!
!
Building configuration...
Current configuration : 2198 bytes
!
! No configuration change since last restart
!
version 12.2
no service single-slot-reload-enable
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname r6
!
logging rate-limit console 10 except errors
enable password cisco
!
username r4 password 0 ccie
ip subnet-zero
!
!
no ip finger
!
no ip dhcp-client network-discovery
ipx routing 0006.0006.0006
isdn switch-type basic-ni
call rsvp-sync
!
!
!
!
!
!
dlsw local-peer peer-id 165.10.126.6 lf 1500
dlsw remote-peer 0 tcp 165.10.122.2 lf 1500
dlsw bridge-group 2
!
!
interface Loopback0
ip address 165.10.126.6 255.255.255.0
```

```
ipx network DEAD6
!
interface Ethernet0/0
ip address 165.10.6.6 255.255.255.0
half-duplex
ntp broadcast
ipx network 100
ipx sap-incremental eigrp 2001
bridge-group 2
!
interface TokenRing0/0
no ip address
shutdown
ring-speed 16
!
interface BRI0/0
ip address 165.10.192.6 255.255.255.0
encapsulation ppp
dialer idle-timeout 300
dialer map ip 165.10.192.4 name r4 broadcast 4085552040
dialer map ip 165.10.192.4 name r4 broadcast 4085552041
dialer load-threshold 5 either
dialer-group 1
isdn switch-type basic-ni
isdn spid1 40855520600101 5552060
isdn spid2 40855520610101 5552061
cdapi buffers regular 0
cdapi buffers raw 0
cdapi buffers large 0
ppp authentication chap
ppp multilink
!
interface Ethernet1/0
no ip address
shutdown
half-duplex
!
router ospf 2001
log-adjacency-changes detail
area 40 range 165.10.126.0 255.255.255.0
network 165.10.6.6 0.0.0.0 area 0
network 165.10.126.6 0.0.0.0 area 40
network 165.10.192.6 0.0.0.0 area 20
!
router bgp 2001
no synchronization
bgp log-neighbor-changes
neighbor 165.10.121.1 remote-as 2001
neighbor 165.10.121.1 update-source Loopback0
```

```
!
ip kerberos source-interface any
ip classless
ip http server
!
!
!
!
ipx router eigrp 2001
network 100
network DEAD6
!
!
ipx sap 7 fakeprintr6 DEAD6.aaaa.aaaa.aaaa 451 3
!
bridge 2 protocol ieee
!
dial-peer cor custom
!
!
!
!
line con 0
transport input none
line aux 0
line vty 0 4
login
line vty 5 15
login
!
ntp authentication-key 10 md5 030752180500 7
ntp authenticate
ntp trusted-key 10
ntp clock-period 17208071
ntp server 165.10.1.2
end
```

Solution: Router8

```
! Cisco Press CCIE Practical Studies Volume I
!
! Solved Configuration
!
! Router 8 - r8
!
!
!
version 12.2
no service single-slot-reload-enable
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname r8
!
netbios access-list host denylab deny lab*
netbios access-list host denylab permit -1
logging rate-limit console 10 except errors
enable password cisco
!
rif 2200.600e.900e 0830.0087.009B.00A0 TokenRing0/0
ip subnet-zero
!
!
no ip finger
!
no ip dhcp-client network-discovery
ipx routing 00e0.a18d.8a86
call rsvp-sync
!
!
!
!
!
!
source-bridge ring-group 101
dlsw local-peer peer-id 165.10.128.8
dlsw remote-peer 0 fst 165.10.122.2 host-netbios-out denylab
!
!
interface Loopback0
ip address 165.10.128.8 255.255.255.0
ip nat outside
!
interface Serial0/0
no ip address
```

```
encapsulation frame-relay
!
interface Serial0/0.1 point-to-point
ip address 165.10.16.8 255.255.255.0
ip nat outside
frame-relay interface-dlci 131
!
interface Serial0/0.2 point-to-point
ipx network A160
frame-relay interface-dlci 141
!
interface TokenRing0/0
ip address 10.10.10.1 255.255.255.0
ip nat inside
ipx network A100
ring-speed 16
multiring all
source-bridge 8 1 101
source-bridge spanning
!
interface Serial0/1
ip address 165.10.5.8 255.255.255.0
encapsulation ppp
delay 10000
ipx network 50
!
router igrp 2010
network 165.10.0.0
distribute-list 90 out Serial0/0.1
distribute-list 90 out Serial0/1
!
ip kerberos source-interface any
ip nat inside source static 10.10.10.10 165.10.128.3
ip nat inside source static 10.10.10.5 165.10.128.2
ip classless
ip http server
!
access-list 90 deny   172.16.0.0 0.0.255.255
access-list 90 permit any
!
!
!
!
!
dial-peer cor custom
!
!
!
!
```

```
line con 0
transport input none
line aux 0
line vty 5 15
!
no scheduler allocate
end
```

Solution: Cat 5500

```
! ! Cisco Press CCIE Practical Studies Volume I
!
! Solved Configuration
!
! Ethernet Switch
!
!
!
 ***** ALL (DEFAULT and NON-DEFAULT) CONFIGURATION *****
!
!
#time: Sun Jan 20 2002, 21:50:41
!
#version 5.5(8)
!
set option fddi-user-pri disabled
set password $2$122V$sAKA0mUybhoY3HYjOHyMG0
set enablepass $2$Cnhy$lEkNNATQvGoHEO0W4oquz/
set prompt cat5k
set length 24 default
set logout 20
set banner motd ^C^C
!
#test
set test diaglevel minimal
set test packetbuffer sun 03:30
set test packetbuffer enable
!
#errordetection
set errordetection inband disable
set errordetection memory disable
!
#system
set system baud  9600
set system modem disable
set system name
set system location
set system contact
set system countrycode
set traffic monitor 100
!
#frame distribution method
set port channel all distribution mac both
!
#snmp
set snmp community read-only      public
set snmp community read-write     private
```

```
set snmp community read-write-all secret
set snmp rmon disable
set snmp trap disable module
set snmp trap disable chassis
set snmp trap disable bridge
set snmp trap disable repeater
set snmp trap disable vtp
set snmp trap disable auth
set snmp trap disable ippermit
set snmp trap disable vmps
set snmp trap disable entity
set snmp trap disable config
set snmp trap disable stpx
set snmp trap disable syslog
set snmp extendedrmon vlanmode disable
set snmp extendedrmon vlanagent disable
set snmp extendedrmon enable
!
#tacacs+
set tacacs attempts 3
set tacacs directedrequest disable
set tacacs timeout 5
!
#radius
set radius deadtime 0
set radius timeout 5
set radius retransmit 2
!
#kerberos
!
#authentication
set authentication login tacacs disable console
set authentication login tacacs disable telnet
set authentication login tacacs disable http
set authentication enable tacacs disable console
set authentication enable tacacs disable telnet
set authentication enable tacacs disable http
set authentication login radius disable console
set authentication login radius disable telnet
set authentication login radius disable http
set authentication enable radius disable console
set authentication enable radius disable telnet
set authentication enable radius disable http
set authentication login local enable console
set authentication login local enable telnet
set authentication login local enable http
set authentication enable local enable console
set authentication enable local enable telnet
set authentication enable local enable http
```

```
set authentication login kerberos disable console
set authentication login kerberos disable telnet
set authentication login kerberos disable http
set authentication enable kerberos disable console
set authentication enable kerberos disable telnet
set authentication enable kerberos disable http
!
#bridge
set bridge apart enable
set bridge fddicheck disable
set bridge ipx snaptoether    8023raw
set bridge ipx 8022toether    8023
set bridge ipx 8023rawtofddi snap
!
#vtp
set vtp domain cisco
set vtp mode transparent
set vtp v2 disable
set vtp pruneeligible 2-1000
clear vtp pruning 1001-1005
set vlan 1 name default type ethernet mtu 1500 said 100001 state
active
set vlan 2 name VLAN0002 type ethernet mtu 1500 said 100002
state active
set vlan 1002 name fddi-default type fddi mtu 1500 said 101002
state active
set vlan 1004 name fddinet-default type fddinet mtu 1500 said
101004 state activ
e stp ieee
set vlan 1005 name trnet-default type trbrf mtu 1500 said 101005
state active st
p ibm
set vlan 1003 name token-ring-default type trcrf mtu 1500 said
101003 state acti
ve mode srb aremaxhop 7 stemaxhop 7 backupcrf off
!
#ip
set feature mdg enable
set feature psync-recovery no-powerdown
set interface sc0 2 165.10.10.10/255.255.0.0 165.10.255.255
set interface sc0 up
set interface sl0 0.0.0.0 0.0.0.0
set interface sl0 up
set arp agingtime 1200
set ip redirect    enable
set ip unreachable    enable
set ip fragmentation enable
set ip route 0.0.0.0/0.0.0.0           165.10.17.4
set ip route 0.0.0.0/0.0.0.0           165.10.10.4
```

```
set ip alias default          0.0.0.0
!
#command alias
!
#vmps
set vmps server retry 3
set vmps server reconfirminterval 60
set vmps downloadmethod tftp
set vmps downloadserver 0.0.0.0 vmps-config-database.1
set vmps state disable
!
#rcp
set rcp username
!
#dns
set ip dns disable
!
#spantree
#uplinkfast groups
set spantree uplinkfast disable
#backbonefast
set spantree backbonefast disable
#portfast
set spantree portfast bpdu-guard disable
set spantree enable  all
#vlan 1
set spantree fwddelay 15    1
set spantree hello    2     1
set spantree maxage   20    1
set spantree priority 32768 1
#vlan 2
set spantree fwddelay 15    2
set spantree hello    2     2
set spantree maxage   20    2
set spantree priority 1     2
#vlan 1003
set spantree fwddelay 4     1003
set spantree hello    2     1003
set spantree maxage   10    1003
set spantree priority 32768 1003
set spantree portstate 1003 block 0
set spantree portcost 1003 62
set spantree portpri  1003 4
set spantree portfast 1003 disable
#vlan 1005
set spantree fwddelay 4     1005
set spantree hello    2     1005
set spantree maxage   10    1005
set spantree priority 32768 1005
```

```
set spantree multicast-address 1005 ieee
!
#cgmp
set cgmp disable
set cgmp leave disable
!
#syslog
set logging console enable
set logging server disable
set logging level cdp 4 default
set logging level mcast 2 default
set logging level dtp 5 default
set logging level earl 2 default
set logging level fddi 2 default
set logging level ip 2 default
set logging level pruning 2 default
set logging level snmp 2 default
set logging level spantree 2 default
set logging level sys 5 default
set logging level tac 2 default
set logging level tcp 2 default
set logging level telnet 2 default
set logging level tftp 2 default
set logging level vtp 2 default
set logging level vmps 2 default
set logging level kernel 2 default
set logging level filesys 2 default
set logging level drip 2 default
set logging level pagp 5 default
set logging level mgmt 5 default
set logging level mls 5 default
set logging level protfilt 2 default
set logging level security 2 default
set logging level radius 2 default
set logging level udld 4 default
set logging level gvrp 2 default
set logging level cops 3 default
set logging level qos 3 default
set logging server facility LOCAL7
set logging server severity 4
set logging timestamp enable
set logging buffer 500
set logging history 1
!
#ntp
set ntp broadcastclient disable
set ntp broadcastdelay 3000
set ntp client disable
set ntp authentication disable
```

```
clear timezone
set summertime disable
set summertime recurring
!
#set boot command
set boot auto-config non-recurring
!
#permit list
set ip permit disable telnet
set ip permit disable snmp
!
#permanent arp entries
!
#drip
set tokenring reduction enable
set tokenring distrib-crf disable
!
#igmp
set igmp disable
set igmp fastleave disable
!
#rgmp
set rgmp disable
!
#protocolfilter
set protocolfilter disable
!
#mls
set mls enable
set mls disable ipx
set mls flow destination
set mls agingtime 256
set mls agingtime ipx 256
set mls agingtime fast 0 0
set mls nde disable
set mls nde disable
!
#standby ports
set standbyports disable
!
#vlan mapping
!
#gmrp
set gmrp disable
!
#garp
set garp timer all 200 600 10000
!
#cdp
```

```
set cdp interval 60
set cdp holdtime 180
set cdp enable
set cdp version v2
!
#qos
set qos disable
set qos map 1q4t 1 1 cos 0
set qos map 1q4t 1 1 cos 1
set qos map 1q4t 1 2 cos 2
set qos map 1q4t 1 2 cos 3
set qos map 1q4t 1 3 cos 4
set qos map 1q4t 1 3 cos 5
set qos map 1q4t 1 4 cos 6
set qos map 1q4t 1 4 cos 7
set qos wred-threshold 1q4t tx queue 1 10 20 40 100
set qos policy-source local
!
#cops
set cops retry-interval 30 30 300
!
#mls multicast
set mls multicast disable
!
#udld
set udld disable
set udld interval 15
!
#port channel
set port channel 2/1-4 7
set port channel 2/5-8 8
set port channel 2/9-12 9
set port channel 2/13-16 10
set port channel 2/17-20 11
set port channel 2/21-24 12
!
#accounting
set accounting exec disable
set accounting connect disable
set accounting system disable
set accounting commands disable
set accounting suppress null-username disable
set accounting update new-info
!
#errdisable timeout
set errdisable-timeout disable other
set errdisable-timeout disable udld
set errdisable-timeout disable duplex-mismatch
set errdisable-timeout disable bpdu-guard
```

```
set errdisable-timeout disable channel-misconfig
set errdisable-timeout interval 300
!
# default port status is enable
!
!
#module 1 : 0-port Supervisor IIG
set module name    1
!
#module 2 : 24-port 10/100BaseTX Ethernet
set module name    2
set module enable  2
set vlan 1    2/1-3,2/5-24
set vlan 2    2/4
set port auxiliaryvlan 2/1-24 none
set port qos 2/1-24 trust-ext untrusted
set port qos 2/1-24 cos-ext 0
set port enable    2/1-24
set port level     2/1-24  normal
set port speed     2/2-24  auto
set port speed     2/1  100
set port duplex    2/1  full
set port trap      2/1-24  disable
set port name      2/1  faketrunk
set port name      2/3  vlan1
set port name      2/4  vlan2
set port name      2/5  vlan1
set port name      2/6  vlan1
set port name      2/2,2/7-24
set port security 2/1-24 disable age 0 maximum 1 shutdown 0
violation shutdown
set port broadcast  2/1-24  100.00%
set port membership 2/1-24  static
set port protocol 2/1-24 ip on
set port protocol 2/1-24 ipx auto
set port protocol 2/1-24 group auto
set port negotiation 2/1-24 enable
set port flowcontrol    2/1-24 send off
set port flowcontrol    2/1-24 receive on
set cdp enable   2/1-24
set udld disable 2/1-24
set udld aggressive-mode disable 2/1-24
set trunk 2/1  on isl 1-1005
set trunk 2/2  auto negotiate 1-1005
set trunk 2/3  auto negotiate 1-1005
set trunk 2/4  auto negotiate 1-1005
set trunk 2/5  auto negotiate 1-1005
set trunk 2/6  auto negotiate 1-1005
set trunk 2/7  off negotiate 1-1005
```

```
set trunk 2/8  auto negotiate 1-1005
set trunk 2/9  auto negotiate 1-1005
set trunk 2/10 auto negotiate 1-1005
set trunk 2/11 auto negotiate 1-1005
set trunk 2/12 auto negotiate 1-1005
set trunk 2/13 auto negotiate 1-1005
set trunk 2/14 auto negotiate 1-1005
set trunk 2/15 auto negotiate 1-1005
set trunk 2/16 auto negotiate 1-1005
set trunk 2/17 auto negotiate 1-1005
set trunk 2/18 auto negotiate 1-1005
set trunk 2/19 auto negotiate 1-1005
set trunk 2/20 auto negotiate 1-1005
set trunk 2/21 auto negotiate 1-1005
set trunk 2/22 auto negotiate 1-1005
set trunk 2/23 auto negotiate 1-1005
set trunk 2/24 auto negotiate 1-1005
set spantree portfast    2/1-24 disable
set spantree portcost    2/1,2/3,2/7,2/22-24  19
set spantree portcost    2/2,2/4-6,2/8-21  100
set spantree portpri     2/1-24  32
set spantree portvlanpri 2/1  0
set spantree portvlanpri 2/2  0
set spantree portvlanpri 2/3  0
set spantree portvlanpri 2/4  0
set spantree portvlanpri 2/5  0
set spantree portvlanpri 2/6  0
set spantree portvlanpri 2/7  0
set spantree portvlanpri 2/8  0
set spantree portvlanpri 2/9  0
set spantree portvlanpri 2/10 0
set spantree portvlanpri 2/11 0
set spantree portvlanpri 2/12 0
set spantree portvlanpri 2/13 0
set spantree portvlanpri 2/14 0
set spantree portvlanpri 2/15 0
set spantree portvlanpri 2/16 0
set spantree portvlanpri 2/17 0
set spantree portvlanpri 2/18 0
set spantree portvlanpri 2/19 0
set spantree portvlanpri 2/20 0
set spantree portvlanpri 2/21 0
set spantree portvlanpri 2/22 0
set spantree portvlanpri 2/23 0
set spantree portvlanpri 2/24 0
set spantree portvlancost 2/1  cost 18
set spantree portvlancost 2/2  cost 99
set spantree portvlancost 2/3  cost 18
set spantree portvlancost 2/4  cost 99
```

```
set spantree portvlancost 2/5   cost 99
set spantree portvlancost 2/6   cost 99
set spantree portvlancost 2/7   cost 18
set spantree portvlancost 2/8   cost 99
set spantree portvlancost 2/9   cost 99
set spantree portvlancost 2/10 cost 99
set spantree portvlancost 2/11 cost 99
set spantree portvlancost 2/12 cost 99
set spantree portvlancost 2/13 cost 99
set spantree portvlancost 2/14 cost 99
set spantree portvlancost 2/15 cost 99
set spantree portvlancost 2/16 cost 99
set spantree portvlancost 2/17 cost 99
set spantree portvlancost 2/18 cost 99
set spantree portvlancost 2/19 cost 99
set spantree portvlancost 2/20 cost 99
set spantree portvlancost 2/21 cost 99
set spantree portvlancost 2/22 cost 18
set spantree portvlancost 2/23 cost 18
set spantree portvlancost 2/24 cost 18
set port qos 2/1-24 cos 0
set port gvrp      2/1-24  disable
set gvrp registration normal    2/1-24
set gvrp applicant normal    2/1-24
set port gmrp   2/1-24   enable
set gmrp registration normal    2/1-24
set gmrp fwdall disable     2/1-24
set port channel 2/1-24 mode auto silent
!
#module 3 empty
!
#module 4 empty
!
#module 5 empty
!
#module 15 empty
!
#module 16 empty
!
#switch port analyzer
!
#cam
set cam agingtime 1-2,1003,1005 300
!
#qos mac-cos
!
#qos router-mac
!
#gvrp
```

```
set gvrp dynamic-vlan-creation disable
set gvrp disable
!
#authorization
set authorization exec disable console
set authorization exec disable telnet
set authorization enable disable console
set authorization enable disable telnet
set authorization commands disable console
set authorization commands disable telnet
end
```