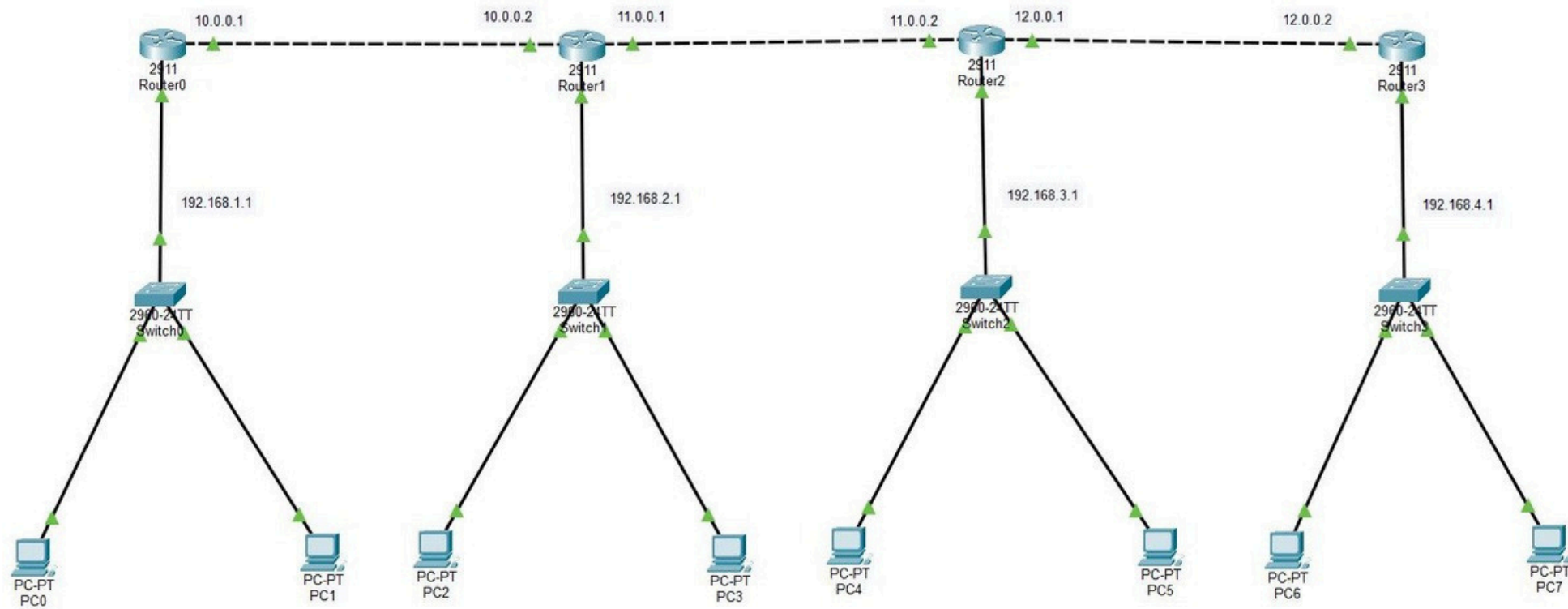


Design and Implementation of Manual Routing in a Multi-Router Network Topology



```
255K bytes of non-volatile configuration memory.  
249856K bytes of ATA System CompactFlash 0 (Read/Write)
```

--- System Configuration Dialog ---

Would you like to enter the initial configuration dialog? [yes/no]:

Press RETURN to get started!

```
Router>enable  
Router#  
Router#configure terminal  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#interface GigabitEthernet0/0  
Router(config-if)#ip address 192.168.1.1 255.255.255.0  
Router(config-if)#ip address 192.168.1.1 255.255.255.0  
Router(config-if)#no shutdown  
Router(config-if)#  
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up  
  
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up  
  
Router(config-if)#exit  
Router(config)#interface GigabitEthernet0/1  
Router(config-if)#ip address 10.0.0.1 255.0.0.0  
Router(config-if)#ip address 10.0.0.1 255.0.0.0  
Router(config-if)#no shutdown  
Router(config-if)#  
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up  
  
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up  
  
Router(config-if)#  
Router(config-if)#ex  
Router(config)#  
Router(config)#ip route 192.168.2.0 255.255.255.0 10.0.0.2  
Router(config)#ip route 192.168.3.0 255.255.255.0 10.0.0.2  
Router(config)#ip route 192.168.4.0 255.255.255.0 10.0.0.2  
Router(config)#ip route 11.0.0.0 255.0.0.0 10.0.0.2  
Router(config)#ip route 12.0.0.0 255.0.0.0 10.0.0.2  
Router(config)#do wr  
Building configuration...  
[OK]  
Router(config)#
```

Press RETURN to get started!

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#interface GigabitEthernet0/0
Router(config-if)#ip address 192.168.2.1 255.255.255.0
Router(config-if)#ip address 192.168.2.1 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up

Router(config-if)#exit
Router(config)#interface GigabitEthernet0/1
Router(config-if)#ip address 10.0.0.2 255.0.0.0
Router(config-if)#ip address 10.0.0.2 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up

Router(config-if)#exit
Router(config)#interface GigabitEthernet0/2
Router(config-if)#ip address 11.0.0.1 255.0.0.0
Router(config-if)#ip address 11.0.0.1 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/2, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/2, changed state to up

Router(config-if)#
Router(config-if)#
Router(config-if)#ex
Router(config)#
Router(config)#
Router(config)#ip route 192.168.3.0 255.255.255.0 11.0.0.2
Router(config)#ip route 192.168.4.0 255.255.255.0 11.0.0.2
Router(config)#ip route 192.168.1.0 255.255.255.0 10.0.0.1
Router(config)#ip route 12.0.0.0 255.0.0.0 11.0.0.2
Router(config)#do wr
Building configuration...
[OK]
Router(config)#
```

Would you like to enter the initial configuration dialog? [yes/no]:

Press RETURN to get started!

Router>enable

Router#

Router#configure terminal

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

Router(config)#interface GigabitEthernet0/0

Router(config-if)#ip address 192.168.3.1 255.255.255.0

Router(config-if)#ip address 192.168.3.1 255.255.255.0

Router(config-if)#no shutdown

Router(config-if)#

%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up

Router(config-if)#exit

Router(config)#interface GigabitEthernet0/1

Router(config-if)#ip address 11.0.0.2 255.0.0.0

Router(config-if)#ip address 11.0.0.2 255.0.0.0

Router(config-if)#no shutdown

Router(config-if)#

%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up

Router(config-if)#exit

Router(config)#interface GigabitEthernet0/2

Router(config-if)#ip address 12.0.0.1 255.0.0.0

Router(config-if)#ip address 12.0.0.1 255.0.0.0

Router(config-if)#no shutdown

Router(config-if)#

%LINK-5-CHANGED: Interface GigabitEthernet0/2, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/2, changed state to up

Router(config-if)#

Router(config-if)#ex

Router(config)#

Router(config)#

Router(config)#ip route 192.168.4.0 255.255.255.0 12.0.0.2

Router(config)#ip route 192.168.2.0 255.255.255.0 11.0.0.1

Router(config)#ip route 192.168.1.0 255.255.255.0 11.0.0.1

Router(config)#ip route 10.0.0.0 255.0.0.0 11.0.0.1

Router(config)#do wr

Building configuration...

[OK]

Router(config)#

Physical Config CLI Attributes

```
Processor board ID FTX152400KS
3 Gigabit Ethernet interfaces
DRAM configuration is 64 bits wide with parity disabled.
255K bytes of non-volatile configuration memory.
249856K bytes of ATA System CompactFlash 0 (Read/Write)
```

--- System Configuration Dialog ---

Would you like to enter the initial configuration dialog? [yes/no]:

Press RETURN to get started!









```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface GigabitEthernet0/0
Router(config-if)#ip address 192.168.4.1 255.255.255.0
Router(config-if)#ip address 192.168.4.1 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up









%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up

Router(config-if)#exit
Router(config)#interface GigabitEthernet0/1
Router(config-if)#ip address 12.0.0.2 255.0.0.0
Router(config-if)#ip address 12.0.0.2 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up

Router(config-if)#
Router(config-if)#
Router(config-if)#ex
Router(config)#
Router(config)#ip route 192.168.3.0 255.255.255.0 12.0.0.1
Router(config)#ip route 192.168.2.0 255.255.255.0 12.0.0.1
Router(config)#ip route 192.168.1.0 255.255.255.0 12.0.0.1
Router(config)#ip route 11.0.0.0 255.0.0.0 12.0.0.1
Router(config)#ip route 10.0.0.0 255.0.0.0 12.0.0.1
Router(config)#do wr
Building configuration...
[OK]
Router(config)#
```

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC0	PC3	ICMP		0.000	N	0	(edit)	(delete)
	Successful	PC1	PC4	ICMP		0.000	N	1	(edit)	(delete)
	Successful	PC2	PC6	ICMP		0.000	N	2	(edit)	(delete)
	Successful	PC4	PC7	ICMP		0.000	N	3	(edit)	(delete)

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC3	PC4	ICMP		0.000	N	0	(edit)	(delete)
	Successful	PC5	PC7	ICMP		0.000	N	1	(edit)	(delete)
	Successful	PC6	PC2	ICMP		0.000	N	2	(edit)	(delete)
	Successful	PC7	PC0	ICMP		0.000	N	3	(edit)	(delete)