

MUHAMMAD USAMA ASHRAF 9850

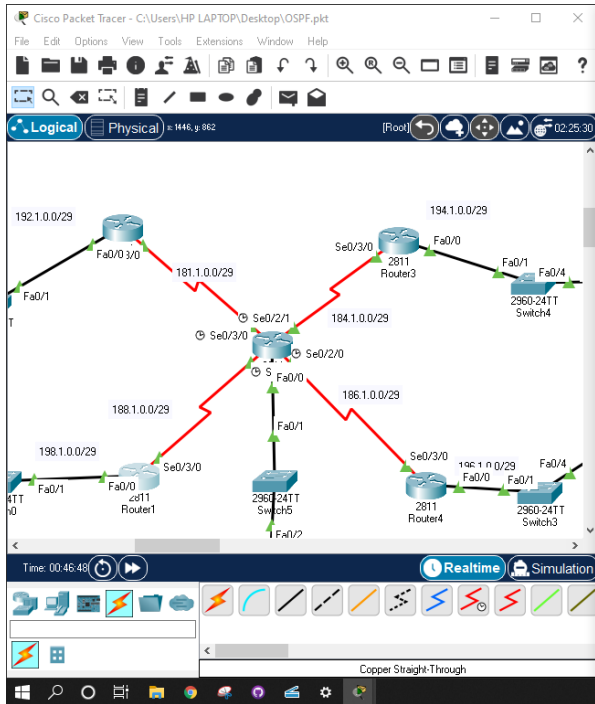
OSPF LAB

The network diagram shows a central 2811 Router connected to four 2811 Routers (Router1, Router2, Router3, Router4) via their Serial0/0/0 and Serial0/0/1 interfaces. Each central router is also connected to a 2960-24TT Switch (Switch1, Switch2, Switch3, Switch4) via their Fa0/0/1 and Fa0/0/24 interfaces. The switches are connected to the central router's Fa0/0/24 interface. The network is configured for OSPF with area 0. The CLI window for Router0 shows the following configuration:

```
usama-9850-Router(config-if)#  
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up  
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up  
exit  
usama-9850-Router(config)#router ospf 9850  
usama-9850-Router(config-router)#network  
% Invalid input detected at '' marker.  
usama-9850-Router(config-router)#end  
usama-9850-Router#configure terminal  
Enter configuration commands, one per line. End with CNTL/Z.  
usama-9850-Router(config)#interface Serial0/3/0  
usama-9850-Router(config-if)#  
%SYS-5-CONFIG_I: Configured from console by console  
usama-9850-Router(config-if)#no sh  
usama-9850-Router(config-if)#  
%LINK-5-CHANGED: Interface Serial0/3/0, changed state to up  
exit  
usama-9850-Router(config)#router ospf 9850  
usama-9850-Router(config-router)#network 181.1.0.0 0.0.0.7 area 0  
usama-9850-Router(config-router)#network 192.1.0.0 0.0.0.7 area 0  
usama-9850-Router(config-router)#exit  
usama-9850-Router(config)#  
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/3/0, changed state to up  
00:15:03: %OSPF-5-ADJCHG: Process 9850, Nbr 188.1.0.1 on Serial0/3/0 from LOADING to FULL,  
Loading Done  
usama-9850-Router(config)#exit  
usama-9850-Router#cop  
%SYS-5-CONFIG_I: Configured from console by console  
y running-config startup-config  
Destination filename [startup-config]?  
Building configuration...
```

The network diagram is the same as the one above. The CLI window for Router3 shows the following configuration:

```
usama-9850-Router(config-if)#  
%LINK-5-CHANGED: Interface Serial0/3/0, changed state to up  
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/3/0, changed state to up  
ip address 184.1.0.2 255.255.0.0  
usama-9850-Router(config-if)#ip address 184.1.0.2 255.255.255.248  
usama-9850-Router(config-if)#ip address 184.1.0.2 255.255.255.248  
usama-9850-Router(config-if)#no sh  
usama-9850-Router(config-if)#exit  
usama-9850-Router(config)#  
usama-9850-Router(config)#interface Serial0/3/0  
usama-9850-Router(config-if)#  
usama-9850-Router(config-if)#exit  
usama-9850-Router(config)#interface FastEthernet0/0  
usama-9850-Router(config-if)#ip address 194.1.0.1 255.255.255.0  
usama-9850-Router(config-if)#ip address 194.1.0.1 255.255.255.248  
usama-9850-Router(config-if)#no shutdown  
usama-9850-Router(config-if)#  
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up  
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up  
usama-9850-Router(config-if)#  
usama-9850-Router(config-if)#no sh  
usama-9850-Router(config-if)#exit  
usama-9850-Router(config)#router ospf 9850  
usama-9850-Router(config-router)#network 184.1.0.0 0.0.0.7 area 0  
usama-9850-Router(config-router)#network 194.1.0.0 0.0.0.7 area 0  
usama-9850-Router(config-router)#exit  
usama-9850-Router(config)#  
00:14:59: %OSPF-5-ADJCHG: Process 9850, Nbr 188.1.0.1 on Serial0/3/0 from LOADING to FULL,  
Loading Done  
usama-9850-Router(config)#exit  
usama-9850-Router#  
%SYS-5-CONFIG_I: Configured from console by console  
copy running-config startup-config  
Destination filename [startup-config]?  
Building configuration...  
[OK]
```



Router1

Physical Config CLI Attributes

IOS Command Line Interface

```
usama-9850-Router(config)#
usama-9850-Router(config)#interface Serial0/3/0
usama-9850-Router(config-if)#
usama-9850-Router(config-if)#exit
usama-9850-Router(config)#interface FastEthernet0/0
usama-9850-Router(config-if)#
$!LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/3/0, changed state to up
ip address 198.1.0.1 255.255.255.0
usama-9850-Router(config-if)#ip address 198.1.0.1 255.255.255.248
usama-9850-Router(config-if)#no exit

$ Invalid input detected at '^' marker.

usama-9850-Router(config-if)#no sh

usama-9850-Router(config-if)#
$!LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

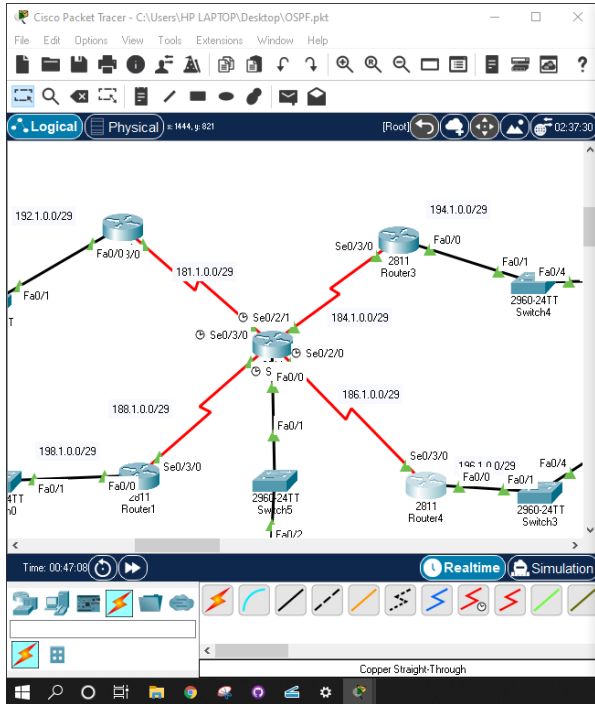
$!LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
exit
usama-9850-Router(config)#router ospf 9850
usama-9850-Router(config-router)#network 198.1.0.0 0.0.0.7
$ Incomplete command.
usama-9850-Router(config-router)#network 198.1.0.0 0.0.0.7 area 0
usama-9850-Router(config-router)#network 188.1.0.0 0.0.0.7 area 0
usama-9850-Router(config-router)#exit
usama-9850-Router(config)#
00:14:42: %OSPF-5-ADJCHG: Process 9850, Nbr 188.1.0.1 on Serial0/3/0 from LOADING to FULL, Loading Done

usama-9850-Router(config)#exit
usama-9850-Router#
$SYS-5-CONFIG_I: Configured from console by console
copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
usama-9850-Router#
usama-9850-Router#
```

Ctrl+F5 to exit CLI focus

Copy Paste

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Router4

Physical Config CLI Attributes

IOS Command Line Interface

```
usama-9850-Router(config-if)#
usama-9850-Router(config-if)#exit
usama-9850-Router(config)#interface Serial0/3/0
usama-9850-Router(config-if)#shutdown
usama-9850-Router(config-if)#
$!LINK-5-CHANGED: Interface Serial0/3/0, changed state to administratively down

$!LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/3/0, changed state to down
ip address 186.1.0.2 255.255.255.248
usama-9850-Router(config-if)#ip address 186.1.0.2 255.255.255.248
usama-9850-Router(config-if)#no sh

usama-9850-Router(config-if)#
$!LINK-5-CHANGED: Interface Serial0/3/0, changed state to up
exit
usama-9850-Router(config)#
$!LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/3/0, changed state to up

usama-9850-Router(config)#router ospf 9850
usama-9850-Router(config-router)#network 196.1.0.0 0.0.0.7 area 0
$ Invalid input detected at '^' marker.

usama-9850-Router(config-router)#network 196.1.0.0 0.0.0.7 area 0
usama-9850-Router(config-router)#network 186.1.0.0 0.0.0.7 area 0
usama-9850-Router(config-router)#exit
usama-9850-Router(config)#
00:14:27: %OSPF-5-ADJCHG: Process 9850, Nbr 188.1.0.1 on Serial0/3/0 from LOADING to FULL, Loading Done

usama-9850-Router(config)#exit
usama-9850-Router#
$SYS-5-CONFIG_I: Configured from console by console
copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
usama-9850-Router#
usama-9850-Router#
```

Ctrl+F5 to exit CLI focus

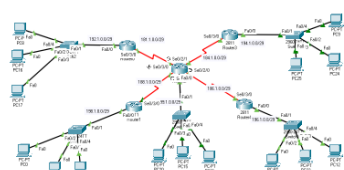
Copy Paste

Top

Cisco Packet Tracer - C:\Users\HP LAPTOP\Desktop\OSPF.pkt

File Edit Options View Tools Extensions Window Help

Logical Physical z: 2205, y: 698 [Root] 12:41:30



PDU List Window

File	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC8	PC9	ICMP		0.000	N	0	(edit)	(delete)
	Successful	PC8	PC0	ICMP		0.000	N	1	(edit)	(delete)
	Successful	PC8	PC8	ICMP		0.000	N	2	(edit)	(delete)
	Successful	PC8	PC15	ICMP		0.000	N	3	(edit)	(delete)
	Successful	PC8	PC12	ICMP		0.000	N	4	(edit)	(delete)

Time: 76:05:57

Realtime Simulation

Scenario 0

New Delete

Toggle PDU List Window

Copper Straight-Through

12°C Clear 3:58 AM