

Implementation of OSPF (Open Shortest Path First) Algorithm

Physical

Config

CLI

Physical Device View

Zoom In Original Size Zoom Out

MODULES

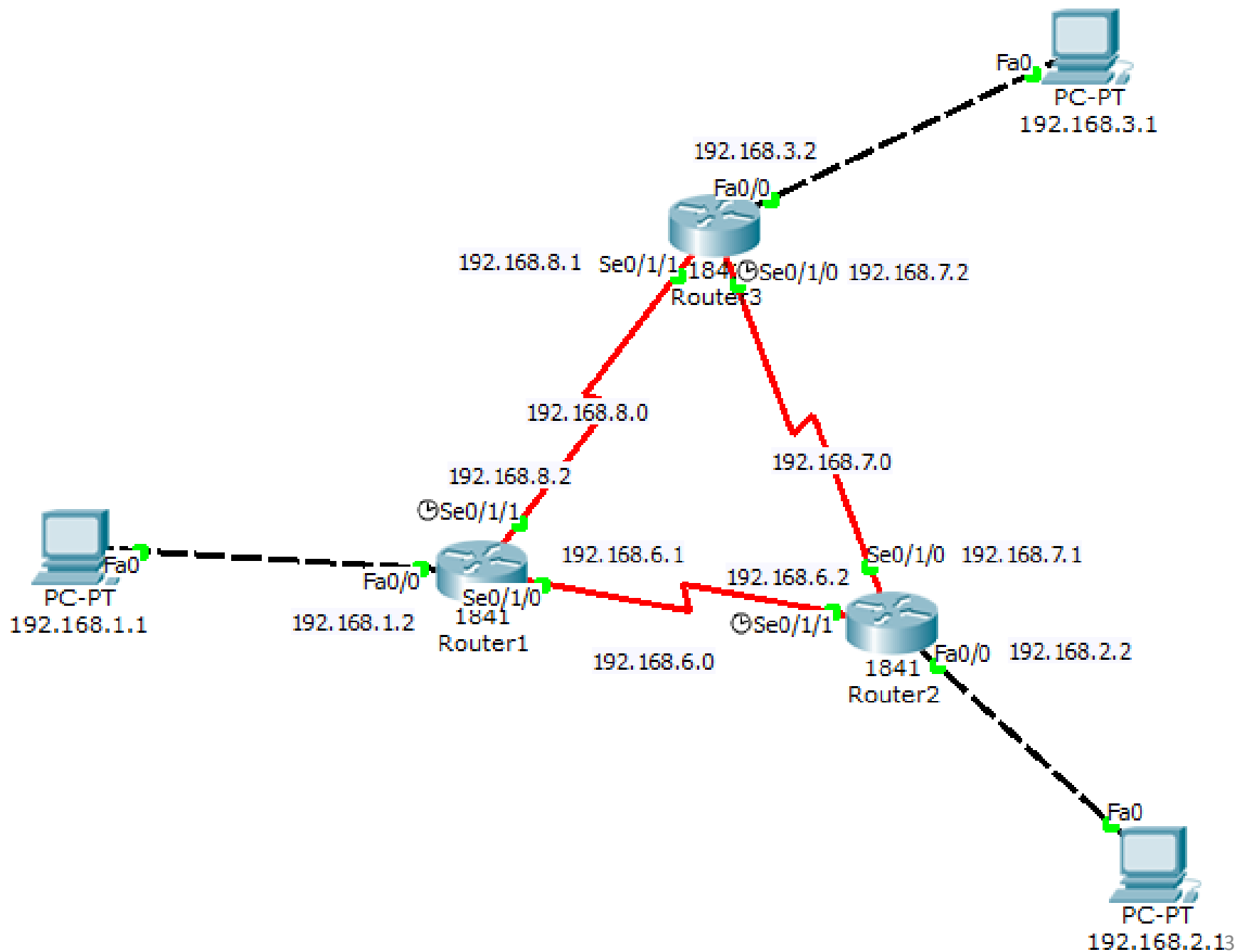
- HWIC-2T
- HWIC-4ESW
- HWIC-8A
- HWIC-AP-AG-B
- WIC-1AM
- WIC-1ENET
- WIC-1T
- WIC-2AM
- WIC-2T
- WIC-Cover

Customize Icon in Physical View

Customize Icon in Logical View

Adding Modules: Drag the module to an available slot on the device.
Removing Modules: Drag the module from the device to the module list.





IP Configuration

☐ DHCP ☒ Static

IP Address 192.168.1.1

Subnet Mask 255.255.255.0

Default Gateway 192.168.1.2

DNS Server

IP Configuration

☐ DHCP ☒ Static

IP Address 192.168.3.1

Subnet Mask 255.255.255.0

Default Gateway 192.168.3.2

DNS Server

IP Configuration

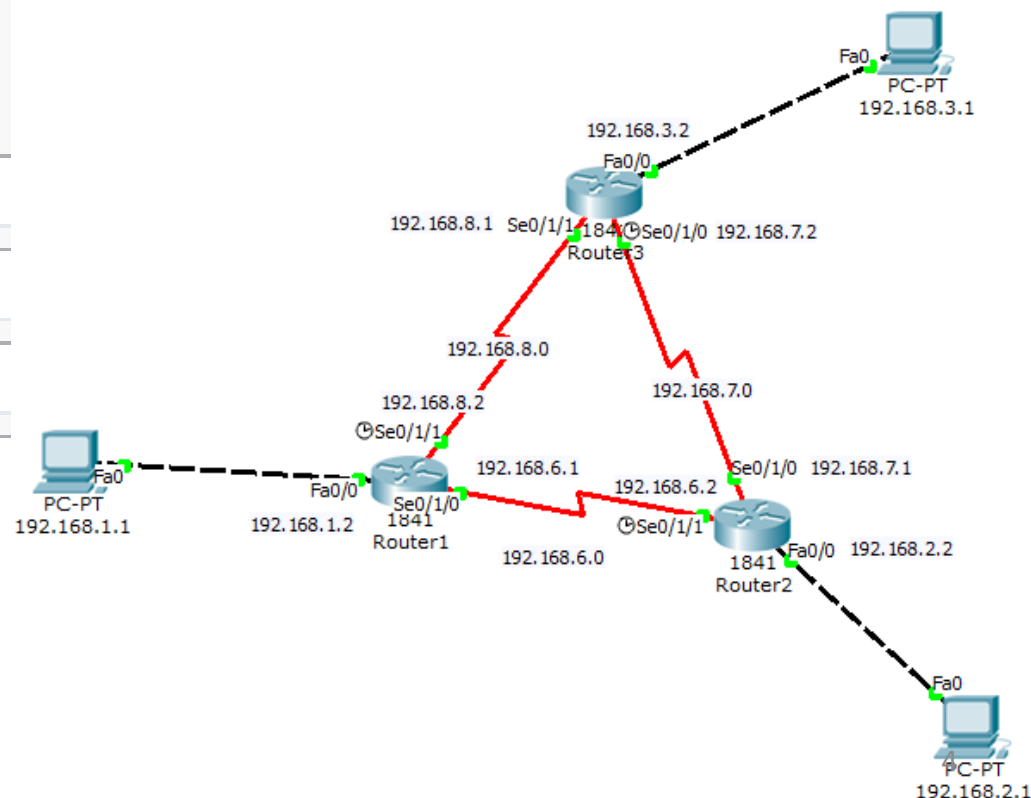
☐ DHCP ☒ Static

IP Address 192.168.2.1

Subnet Mask 255.255.255.0

Default Gateway 192.168.2.2

DNS Server



Router-1

Router>en

Router#conf t

Router(config)#int fa 0/0

Router(config-if)#ip ad 192.168.1.2 255.255.255.0

Router(config-if)#no shut

Router(config-if)#exit

Router(config)# int se0/1/0

Router(config-if)#ip add 192.168.6.1 255.255.255.0

Router(config-if)#no shut

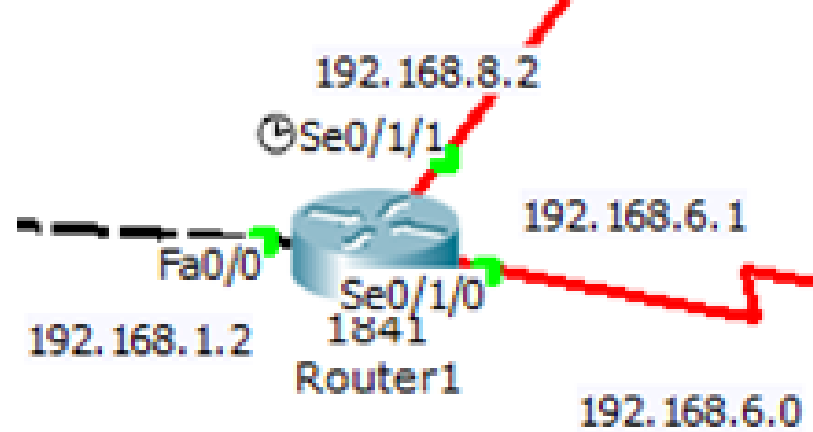
Router(config-if)#exit

Router(config)# int se0/1/1

Router(config-if)#ip add 192.168.8.2 255.255.255.0

Router(config-if)#clock rate 64000

Router(config-if)#no shut



```
Router(config-if)#exit
```

```
Router(config)#exit
```

```
Router#
```

```
Router#copy running-config startup-config
```

```
Router#
```

```
Router#conf t
```

```
Router(config)#router ospf 1
```

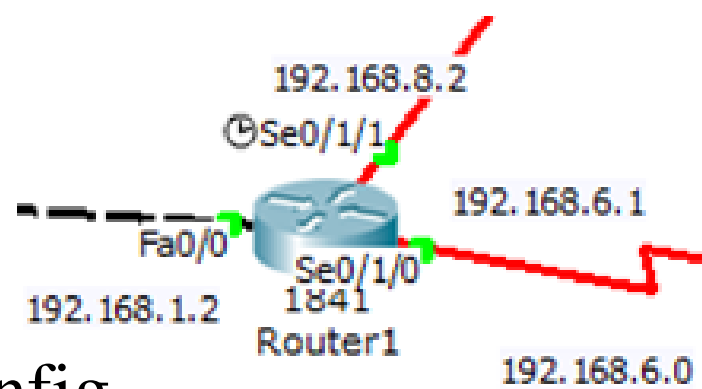
```
Router(config-router)#network 192.168.1.0 0.0.0.255 area 0
```

%wildcard mask for network advertising

```
Router(config-router)#network 192.168.6.0 0.0.0.255 area 0
```

```
Router(config-router)#network 192.168.8.0 0.0.0.255 area 0
```

```
Router(config-router)#
```



Router-2

Router>en

Router#conf t

Router(config)#int fa 0/0

Router(config-if)#ip add 192.168.2.2 255.255.255.0

Router(config-if)#no shut

Router(config-if)#exit

Router(config)#int se0/1/0

Router(config-if)#ip add 192.168.7.1 255.255.255.0

Router(config-if)#no shut

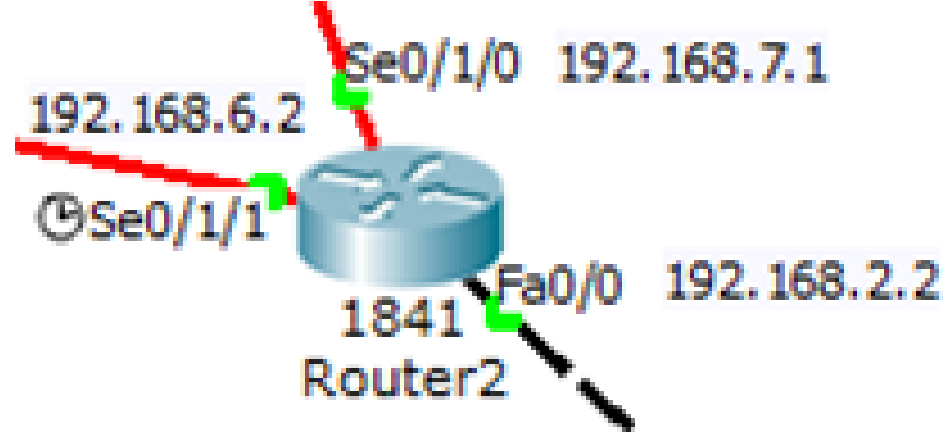
Router(config-if)#exit

Router(config)# int se0/1/1

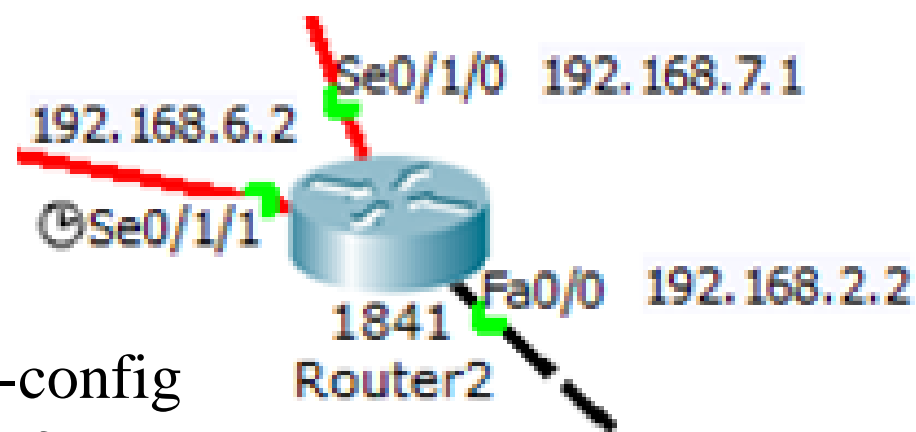
Router(config-if)#ip add 192.168.6.2 255.255.255.0

Router(config-if)#clock rate 64000

Router(config-if)#no shut



```
Router(config-if)#
Router(config-if)#exit
Router(config)#exit
Router#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
```



```
Router#conf t
Router(config)#router ospf 1
Router(config-router)#network 192.168.2.0 0.0.0.255 area 0
Router(config-router)#network 192.168.7.0 0.0.0.255 area 0
Router(config-router)#network 192.168.6.0 0.0.0.255 area 0
Router(config-router)#
```


Router-3

Router>en

Router#conf t

Router(config)#int fa 0/0

Router(config-if)#ip add 192.168.3.2 255.255.255.0

Router(config-if)#no shut

Router(config-if)#exit

Router(config)# int se0/1/0

Router(config-if)#ip add 192.168.7.2 255.255.255.0

Router(config-if)#clock rate 64000

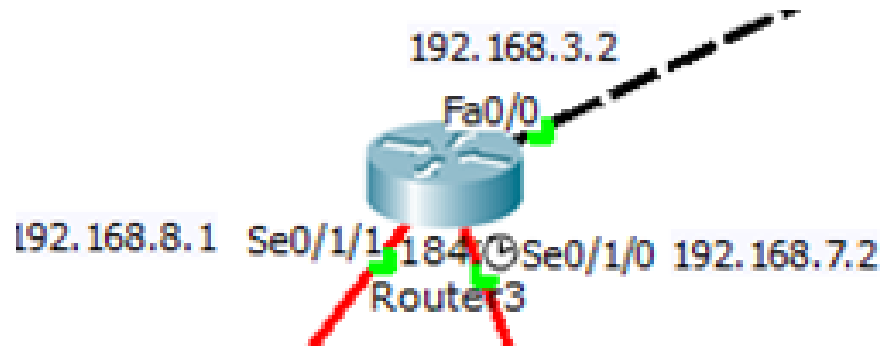
Router(config-if)#no shut

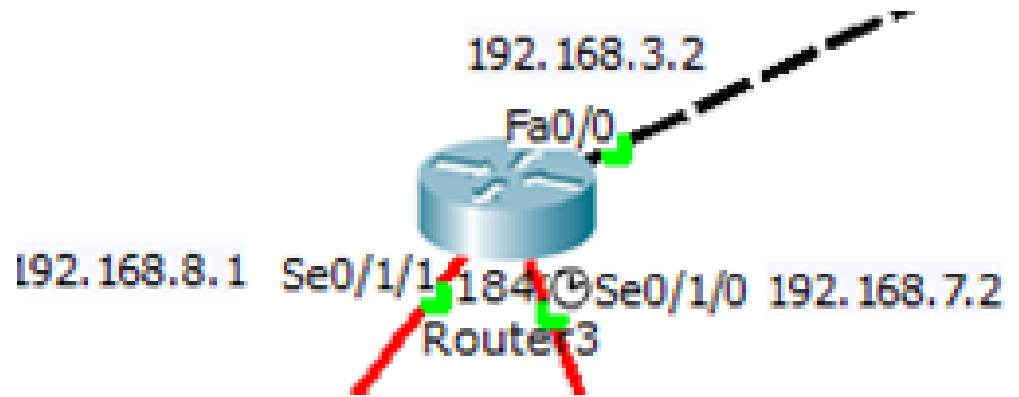
Router(config-if)#exit

Router(config)# int se0/1/1

Router(config-if)#ip add 192.168.8.1 255.255.255.0

Router(config-if)#no shut





```
Router(config-if)#exit
```

```
Router(config)#exit
```

```
Router#copy running-config startup-config
```

```
Router#
```

```
Router#conf t
```

```
Router(config)#router ospf 1
```

```
Router(config-router)#network 192.168.3.0 0.0.0.255 area 0
```

```
Router(config-router)#network 192.168.8.0 0.0.0.255 area 0
```

```
Router(config-router)#network 192.168.7.0 0.0.0.255 area 0
```

```
Router(config-router)#
```

Verify the network in simulation mode.

