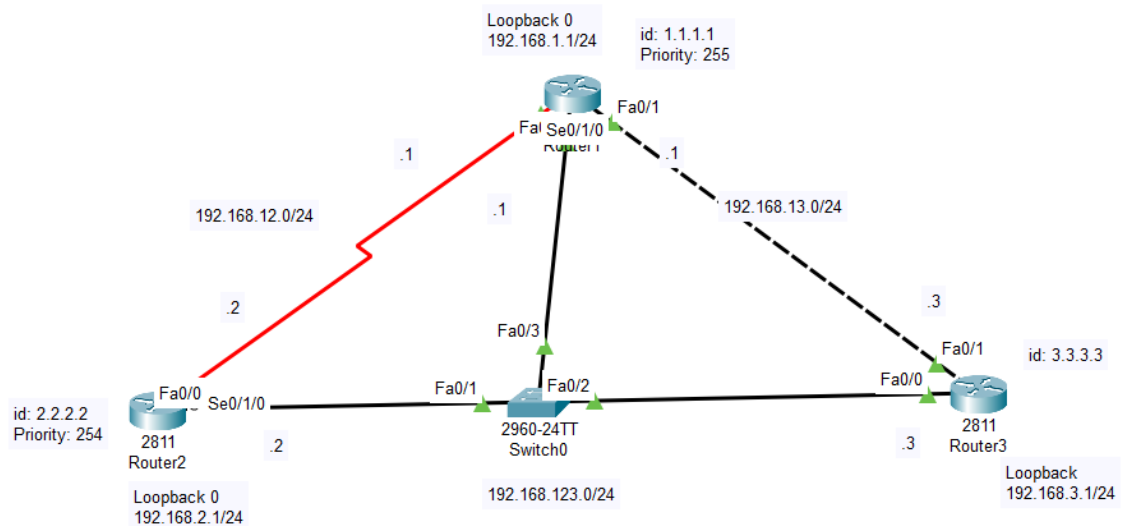
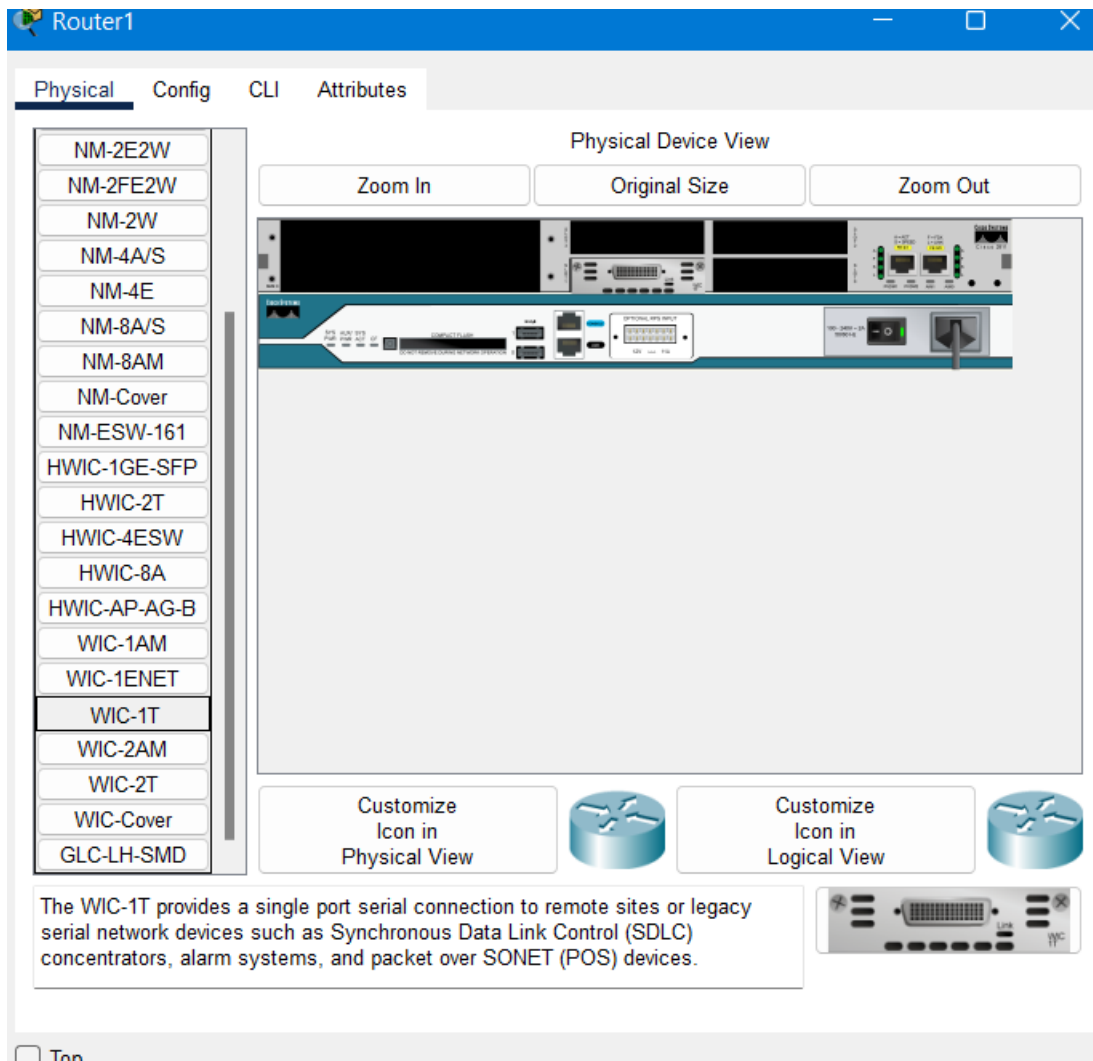


**LỜI NÓI ĐẦU:** Làm theo nhưng vẫn phải có suy nghĩ của riêng mình nhen, sai t cũng không biết dou, cái này chỉ hỗ trợ xem lại code cho dễ thấu, còn muốn góp ý thì xin inbox cho [Facebook](#) ^^.

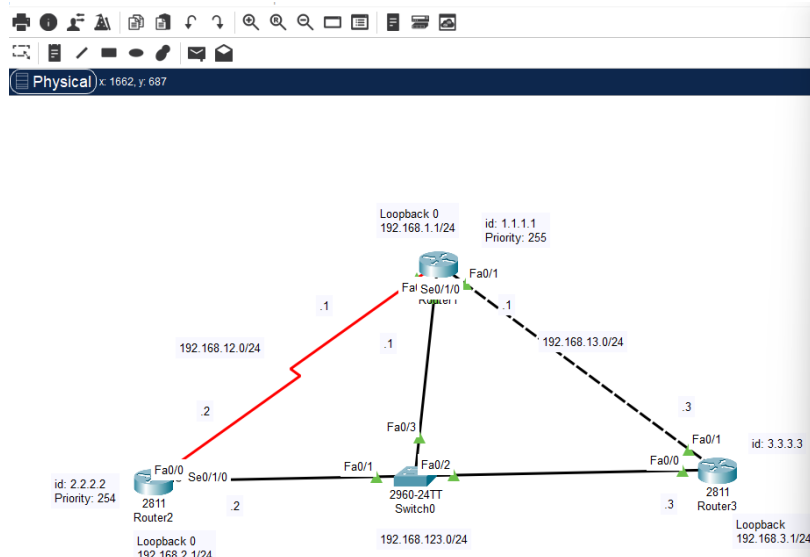
OSPF Cisco packet tracer:



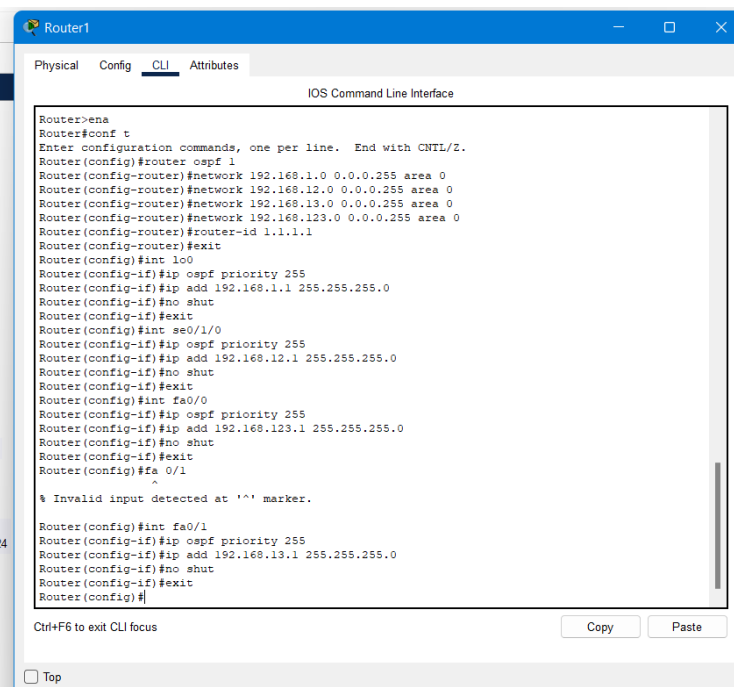
Nối router 1 và router 2 thì tắt router, kéo WIC-1T (Hoặc WIC-2T) vào router và bật lên, còn thêm cổng fa thì thêm NM-1E:



## Thiết lập router 1:



Code:

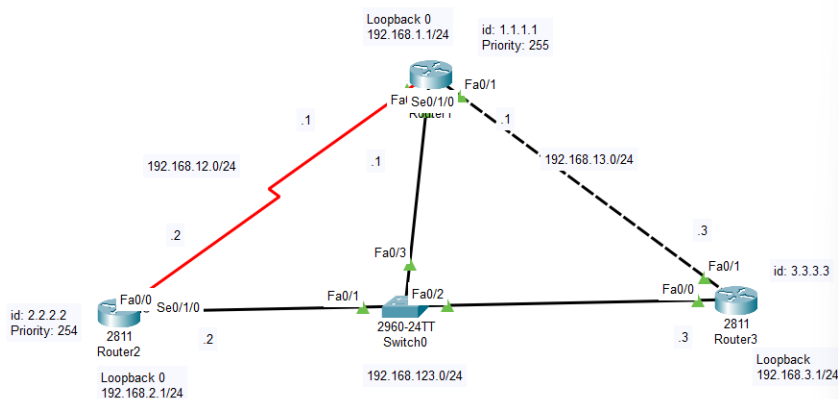


```

Router>ena
Router#conf t
Router(config)#router ospf 1
Router(config-router)#network 192.168.1.0 0.0.0.255 area 0
Router(config-router)#network 192.168.12.0 0.0.0.255 area 0
Router(config-router)#network 192.168.13.0 0.0.0.255 area 0
Router(config-router)#network 192.168.123.0 0.0.0.255 area 0
Router(config-router)#router-id 1.1.1.1
Router(config-router)#exit
Router(config)#int lo0
Router(config-if)#ip ospf priority 255
Router(config-if)#ip add 192.168.1.1 255.255.255.0
Router(config-if)#no shut
Router(config-if)#exit
Router(config)#int se0/1/0
Router(config-if)#ip ospf priority 255
Router(config-if)#ip add 192.168.12.1 255.255.255.0
Router(config-if)#no shut
Router(config-if)#exit
Router(config)#int fa0/0
Router(config-if)#ip ospf priority 255
Router(config-if)#ip add 192.168.123.1 255.255.255.0
Router(config-if)#no shut
Router(config-if)#exit
Router(config)#int fa0/1
Router(config-if)#ip ospf priority 255
Router(config-if)#ip add 192.168.13.1 255.255.255.0
Router(config-if)#no shut
Router(config-if)#exit

```

## Thiết lập router 2:



```

Router2
Physical Config CLI Attributes
IOS Command Line Interface

00:00:51: %OSPF-5-ADJCHG: Process 1, Nbr 1.1.1.1 on FastEthernet0/0 from
LOADING to FULL, Loading Done

Router>ena
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router ospf 1
Router(config-router)#network 192.168.2.0 0.0.0.255 area 0
Router(config-router)#network 192.168.12.0 0.0.0.255 area 0
Router(config-router)#network 192.168.123.0 0.0.0.255 area 0
Router(config-router)#router-id 2.2.2.2
Router(config-router)#exit
Router(config)#int lo0
Router(config-if)#ip ospf priority 254
Router(config-if)#ip add 192.168.2.1 255.255.255.0
Router(config-if)#no shut
Router(config-if)#exit
Router(config)#int se0/1/0
Router(config-if)#ip ospf priority 254
Router(config-if)#ip add 192.168.12.2 255.255.255.0
Router(config-if)#no shut
Router(config-if)#exit
Router(config)#int fa0/0
Router(config-if)#ip ospf priority 254
Router(config-if)#ip add 192.168.123.2 255.255.255.0
Router(config-if)#no shut
Router(config-if)#exit
Router(config)#

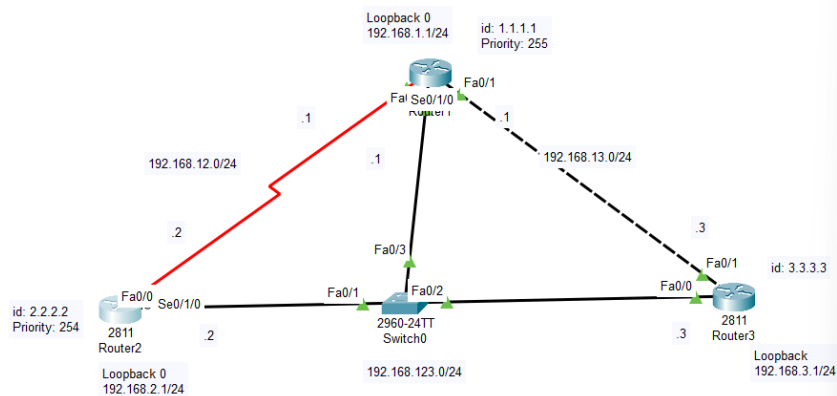
```

Code:

Router>ena

```
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 192.168.12.0 0.0.0.255 area 0
Router(config-router)#network 192.168.123.0 0.0.0.255 area 0
Router(config-router)#router-id 2.2.2.2
Router(config-router)#exit
Router(config)#int lo0
Router(config-if)#ip ospf priority 254
Router(config-if)#ip add 192.168.2.1 255.255.255.0
Router(config-if)#no shut
Router(config-if)#exit
Router(config)#int se0/1/0
Router(config-if)#ip ospf priority 254
Router(config-if)#ip add 192.168.12.2 255.255.255.0
Router(config-if)#no shut
Router(config-if)#exit
Router(config)#int fa0/0
Router(config-if)#ip ospf priority 254
Router(config-if)#ip add 192.168.123.2 255.255.255.0
Router(config-if)#no shut
Router(config-if)#exit
```

### Thiết lập router 3:



```

Router3
Physical Config CLI Attributes
IOS Command Line Interface
Router>ena
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router ospf 1
Router(config-router)#network 192.168.3.0 0.0.0.255 area 0
Router(config-router)#network 192.168.13.0 0.0.0.255 area 0
Router(config-router)#network 192.168.123.0 0.0.0.255 area 0
Router(config-router)#router-id 3.3.3.3
Router(config-router)#exit
Router(config)#int lo0
Router(config-if)#ip add 192.168.3.1 255.255.255.0
Router(config-if)#no shut
Router(config-if)#exit
Router(config)#int fa0/1
Router(config-if)#ip add 192.168.13.3 255.255.255.0
Router(config-if)#no shut
Router(config-if)#exit
Router(config)#int fa0/0
Router(config-if)#ip add 192.168.123.3 255.255.255.0
Router(config-if)#no shut
Router(config-if)#exit
Router(config)#
Router#
%SYS-5-CONFIG I: Configured from console by console

Ctrl+F6 to exit CLI focus
Copy Paste

```

Code:

```

Router>ena
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 192.168.13.0 0.0.0.255 area 0
Router(config-router)#network 192.168.123.0 0.0.0.255 area 0
Router(config-router)#router-id 3.3.3.3
Router(config-router)#exit
Router(config)#int lo0
Router(config-if)#ip add 192.168.3.1 255.255.255.0
Router(config-if)#no shut
Router(config-if)#exit
Router(config)#int fa0/1
Router(config-if)#ip add 192.168.13.3 255.255.255.0
Router(config-if)#no shut
Router(config-if)#exit
Router(config)#int fa0/0
Router(config-if)#ip add 192.168.123.3 255.255.255.0
Router(config-if)#no shut
Router(config-if)#exit

```

### Xem kết quả:

```

Router#sh ip ospf int
Router#sh ip route ospf
Router#sh ip ospf neighbor
Router#sh ip ospf
(Còn show ra gì thì tự tìm hiểu để rõ hơn nhen ^^)

```

Đọc cũng đọc đến đây rồi thì ai ủng hộ cho mình xin 12k bữa sáng hì :>



## LƯU Ý:

Phần set router-id, sau khi code xong mình cần phải clear ospf để router nhận id

```
Router>ena
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router ospf 1
Router(config-router)#router-id 1.1.1.1
Router(config-router)#end
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#clear ip ospf process
Reset ALL OSPF processes? [no]: y
```

Code:

```
Router>ena
Router#conf t
Router(config)#router ospf 1
Router(config-router)#router-id 1.1.1.1
Router(config-router)#end
Router#clear ip ospf process
Reset ALL OSPF processes? [no]: y
```

Kiểm tra router-id

```
Router#sh ip ospf int
```

## SET COST CHO CÔNG CỦA ROUTER:

```
Router>ena
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int fa0/0
Router(config-if)#ip ospf cost 65
Router(config-if)#end
Router#
%SYS-5-CONFIG_I: Configured from console by console
show ip ospf int

Loopback0 is up, line protocol is up
 Internet address is 192.168.1.1/24, Area 0
 Process ID 1, Router ID 1.1.1.1, Network Type LOOPBACK, Cost: 1
 Loopback interface is treated as a stub Host
FastEthernet0/0 is up, line protocol is up
 Internet address is 192.168.123.1/24, Area 0
 Process ID 1, Router ID 1.1.1.1, Network Type BROADCAST, Cost: 65
 Transmit Delay is 1 sec, State DR, Priority 255
 Designated Router (ID) 1.1.1.1, Interface address 192.168.123.1
 Backup Designated Router (ID) 2.2.2.2, Interface address 192.168.123.2
 Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
 Hello due in 00:00:07
```

Code:

```
Router>ena
Router#conf t
Router(config)#int fa0/0
Router(config-if)#ip ospf cost 65
Router(config-if)#end
```

Kiểm tra cost

```
Router#sh ip ospf int fa0/0
```

(Nốt lưu ý: Nếu cost hay priority set rồi mà vẫn chưa hiện thì cứ clear ospf cho chắc, không được nữa thì chịu :>)

**Kiểm tra đường truyền tệp tin từ router này sang router khác:**

```
Router>ena
Router#
00:00:10: %OSPF-5-ADJCHG: Process 1, Nbr 2.2.2.2 on Serial0/1/0 from LOADING
to FULL, Loading Done
tra
Router#traceroute 192.168.2.1
Type escape sequence to abort.
Tracing the route to 192.168.2.1

 1  192.168.12.2      6 msec    0 msec    2 msec
Router#
```

Code:

Router#traceroute 192.168.2.1

Giải thích: sau khi dùng câu lệnh traceroute nó sẽ hiển thị danh sách các router trung gian mà gói tin đi qua trên đường đi từ nguồn đến đích. (Ở trên vì đã set cost cổng fa0/0 là 65 nên nó đi qua cổng se0/1/0 là 192.168.12.1)