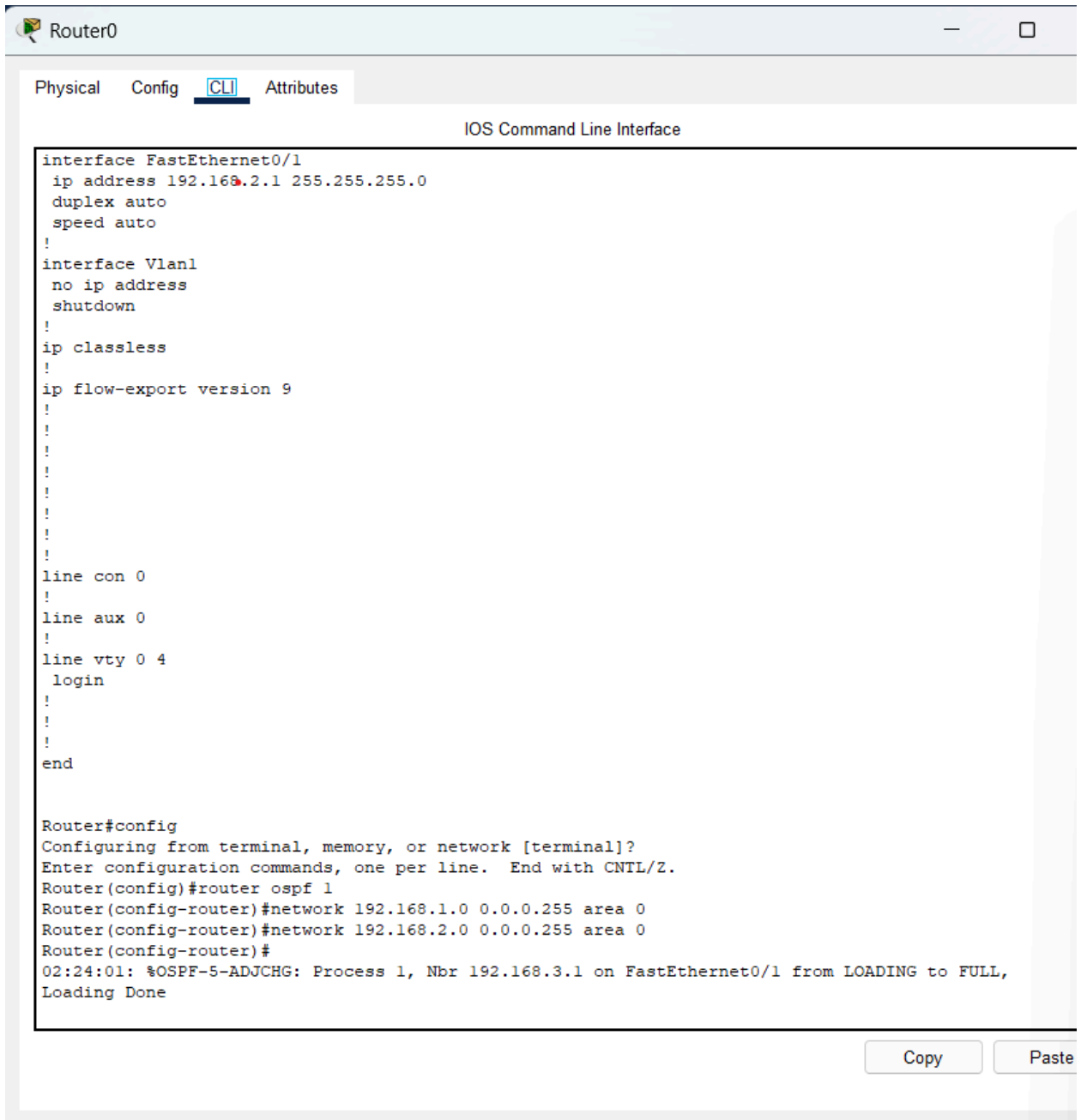Adding networks and commands

Router0 — □

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
interface FastEthernet0/1
 ip address 192.168.2.1 255.255.255.0
 duplex auto
 speed auto
!
interface Vlan1
 no ip address
 shutdown
!
ip classless
!
ip flow-export version 9
!
!
!
!
!
!
!
!
line con 0
!
line aux 0
!
line vty 0 4
 login
!
!
!
end


Router#config
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#router ospf 1
Router(config-router)#network 192.168.1.0 0.0.0.255 area 0
Router(config-router)#network 192.168.2.0 0.0.0.255 area 0
Router(config-router)#
02:24:01: %OSPF-5-ADJCHG: Process 1, Nbr 192.168.3.1 on FastEthernet0/1 from LOADING to FULL,
Loading Done
```

Copy   Paste

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
!
!
!
interface FastEthernet0/0
 ip address 192.168.1.1 255.255.255.0
 duplex auto
 speed auto
!
interface FastEthernet0/1
 ip address 192.168.2.1 255.255.255.0
 duplex auto
 speed auto
!
interface Vlan1
 no ip address
 shutdown
!
router ospf 1
 log-adjacency-changes
 network 192.168.1.0 0.0.0.255 area 0
 network 192.168.2.0 0.0.0.255 area 0
!
ip classless
!
ip flow-export version 9
!
!
!
!
!
!
!
!
line con 0
!
line aux 0
!
line vty 0 4
 login
!
!
!
```

Copy   Paste

☐ Top

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
end


Router# show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

C    192.168.1.0/24 is directly connected, FastEthernet0/0
C    192.168.2.0/24 is directly connected, FastEthernet0/1
O    192.168.3.0/24 [110/2] via 192.168.2.2, 00:06:08, FastEthernet0/1
O    192.168.4.0/24 [110/3] via 192.168.2.2, 00:04:32, FastEthernet0/1

Router#show ip route ospf
O    192.168.3.0 [110/2] via 192.168.2.2, 00:06:18, FastEthernet0/1
O    192.168.4.0 [110/3] via 192.168.2.2, 00:04:42, FastEthernet0/1

Router#show ip protocols

Routing Protocol is "ospf 1"
  Outgoing update filter list for all interfaces is not set
  Incoming update filter list for all interfaces is not set
  Router ID 192.168.2.1
  Number of areas in this router is 1. 1 normal 0 stub 0 nssa
  Maximum path: 4
  Routing for Networks:
    192.168.1.0 0.0.0.255 area 0
    192.168.2.0 0.0.0.255 area 0
  Routing Information Sources:
    Gateway          Distance        Last Update
    192.168.2.1            110        00:07:01
    192.168.3.1            110        00:05:32
    192.168.4.1            110        00:04:56
  Distance: (default is 110)

Router#
```

Copy   Paste

☐ Top

```
Router#show ip ospf interface fa0/0

FastEthernet0/0 is up, line protocol is up
  Internet address is 192.168.1.1/24, Area 0
  Process ID 1, Router ID 192.168.2.1, Network Type BROADCAST, Cost: 1
  Transmit Delay is 1 sec, State DR, Priority 1
  Designated Router (ID) 192.168.2.1, Interface address 192.168.1.1
  No backup designated router on this network
  Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
    Hello due in 00:00:08
  Index 1/1, flood queue length 0
  Next 0x0(0)/0x0(0)
  Last flood scan length is 1, maximum is 1
  Last flood scan time is 0 msec, maximum is 0 msec
  Neighbor Count is 0, Adjacent neighbor count is 0
  Suppress hello for 0 neighbor(s)
Router#show ip ospf neighbor


Neighbor ID     Pri   State          Dead Time   Address         Interface
192.168.3.1      1    FULL/BDR       00:00:39    192.168.2.2     FastEthernet0/1
Router#show ip ospf database
            OSPF Router with ID (192.168.2.1) (Process ID 1)

                Router Link States (Area 0)

Link ID         ADV Router      Age         Seq#       Checksum Link count
192.168.2.1     192.168.2.1     508         0x80000003 0x0034f1 2
192.168.3.1     192.168.3.1     419         0x80000004 0x00b8f9 2
192.168.4.1     192.168.4.1     383         0x80000003 0x0052c9 2

                Net Link States (Area 0)
Link ID         ADV Router      Age         Seq#       Checksum
192.168.2.1     192.168.2.1     508         0x80000001 0x00df68
192.168.3.1     192.168.3.1     419         0x80000001 0x002816
Router#
```

Copy   Paste

☐ Top

Ping command

```
C:\>ping 192.168.4.2

Pinging 192.168.4.2 with 32 bytes of data:

Reply from 192.168.4.2: bytes=32 time=4ms TTL=125
Reply from 192.168.4.2: bytes=32 time=1ms TTL=125
Reply from 192.168.4.2: bytes=32 time<1ms TTL=125
Reply from 192.168.4.2: bytes=32 time=4ms TTL=125

Ping statistics for 192.168.4.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 4ms, Average = 2ms

C:\>
```

☐ Top