# دستورکار سری 6 آزشبکه

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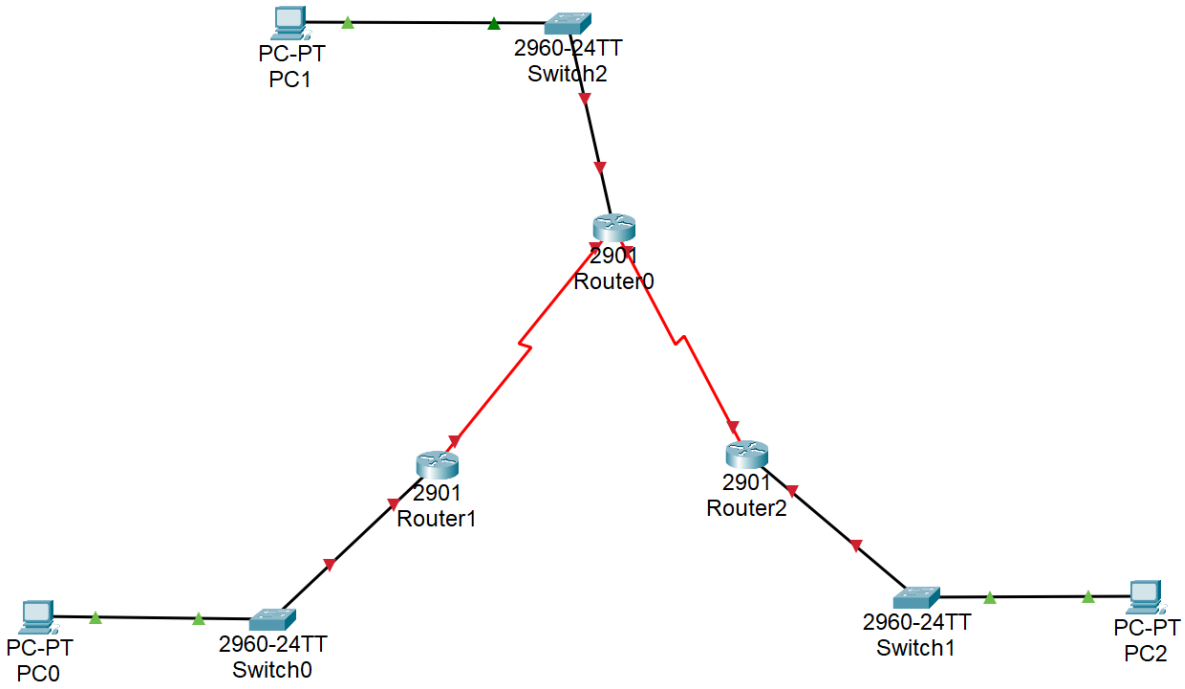
1)




2)

```
router3(config)#hostname router3
router3(config)#
```

3) برای روتر دوم به عنوان مثال داریم :

```
router2(config)#interface gigabitEthernet 0/0
router2(config-if)#no shu
router2(config-if)#no shutdown

router2(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
```

```
router2(config-if)#ip address 192.168.3.1 255.255.255.0
router1(config)#interface serial 0/0/0
router1(config-if)#ip address 192.168.2.1 255.255.255.0
router1(config-if)#
```

4)

```
router2#show running-config
Building configuration...
```

```
!
interface GigabitEthernet0/0
 ip address 192.168.3.1 255.255.255.0
 duplex auto
 speed auto
!
interface GigabitEthernet0/1
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Serial0/0/0
 ip address 192.168.2.2 255.255.255.0
!
interface Serial0/0/1
 ip address 192.168.4.2 255.255.255.0
 clock rate 2000000
!
interface Vlan1
 no ip address
 shutdown
!
ip classless
!
ip flow-export version 9
```

```
router2#show interfaces
GigabitEthernet0/0 is up, line protocol is up (connected)
  Hardware is CN Gigabit Ethernet, address is 0001.968d.2701
(bia 0001.968d.2701)
  Internet address is 192.168.3.1/24
  MTU 1500 bytes, BW 1000000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  Full-duplex, 100Mb/s, media type is RJ45
  output flow-control is unsupported, input flow-control is
unsupported
  ARP type: ARPA, ARP Timeout 04:00:00,
  Last input 00:00:08, output 00:00:05, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0 (size/max/drops); Total output drops: 0
  Queueing strategy: fifo
  Output queue :0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     0 packets input, 0 bytes, 0 no buffer
     Received 0 broadcasts, 0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0
abort
     0 watchdog, 1017 multicast, 0 pause input
     0 input packets with dribble condition detected
 --More--
```

5) دسترسی وجود ندارد :

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.5.10

Pinging 192.168.5.10 with 32 bytes of data:

Reply from 192.168.1.1: Destination host unreachable.
Reply from 192.168.1.1: Destination host unreachable.
Request timed out.
Reply from 192.168.1.1: Destination host unreachable.

Ping statistics for 192.168.5.10:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
```

6 و 7 و 8 ) برای روتر1 داریم :

```
router1(config)#router rip
router1(config-router)#
```

```
router1(config-router)#network 192.168.1.0
router1(config-router)#network 192.168.2.0
router1(config-router)#
```

```
router1#show ip protocols
Routing Protocol is "rip"
Sending updates every 30 seconds, next due in 27 seconds
Invalid after 180 seconds, hold down 180, flushed after 240
Outgoing update filter list for all interfaces is not set
Incoming update filter list for all interfaces is not set
Redistributing: rip
Default version control: send version 1, receive any version
  Interface             Send  Recv  Triggered RIP  Key-chain
  GigabitEthernet0/0    12 1
  Serial0/0/0           12 1
Automatic network summarization is in effect
Maximum path: 4
Routing for Networks:
        192.168.1.0
        192.168.2.0
Passive Interface(s):
Routing Information Sources:
        Gateway         Distance      Last Update
Distance: (default is 120)
```

```
router1#show ip route
Codes: L - local, C - connected, S - static, 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

     192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.1.0/24 is directly connected,
GigabitEthernet0/0
L       192.168.1.1/32 is directly connected,
GigabitEthernet0/0
     192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.2.0/24 is directly connected, Serial0/0/0
L       192.168.2.1/32 is directly connected, Serial0/0/0
```

9) از کامپیوتر 192.168.1.10 به کامپیوتر 192.168.5.10 دوباره ping میکنیم :

```
C:\>ping 192.168.5.10

Pinging 192.168.5.10 with 32 bytes of data:

Request timed out.
Reply from 192.168.5.10: bytes=32 time=8ms TTL=125
Reply from 192.168.5.10: bytes=32 time=10ms TTL=125
Reply from 192.168.5.10: bytes=32 time=11ms TTL=125

Ping statistics for 192.168.5.10:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 8ms, Maximum = 11ms, Average = 9ms
```

10) یک نامه از pc0 به pc2 میفرستیم :

```
router1#debug ip rip
RIP protocol debugging is on
router1#RIP: sending  v1 update to 255.255.255.255 via
GigabitEthernet0/0 (192.168.1.1)
RIP: build update entries
      network 192.168.2.0 metric 1
      network 192.168.3.0 metric 2
      network 192.168.4.0 metric 2
      network 192.168.5.0 metric 3
RIP: sending  v1 update to 255.255.255.255 via Serial0/0/0
(192.168.2.1)
RIP: build update entries
      network 192.168.1.0 metric 1
RIP: received v1 update from 192.168.2.2 on Serial0/0/0
      192.168.3.0 in 1 hops
      192.168.4.0 in 1 hops
      192.168.5.0 in 2 hops
RIP: sending  v1 update to 255.255.255.255 via
GigabitEthernet0/0 (192.168.1.1)
RIP: build update entries
      network 192.168.2.0 metric 1
      network 192.168.3.0 metric 2
      network 192.168.4.0 metric 2
      network 192.168.5.0 metric 3
RIP: sending  v1 update to 255.255.255.255 via Serial0/0/0
(192.168.2.1)
RIP: build update entries
      network 192.168.1.0 metric 1
RIP: received v1 update from 192.168.2.2 on Serial0/0/0
      192.168.3.0 in 1 hops
      192.168.4.0 in 1 hops
      192.168.5.0 in 2 hops
```