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12/11/2023

**Computer Networks-Lab**

Final Project

***Group Members***

**21F-9156 Aman Shahzad**

**21F-9153 Haseeb Shaukat**

**21F-9191 Uzair Azam**

***Networks Information***

**IP Addresses:** 220.164.210.60/13

**Private IP Addresses:** 100.120.210.0

**Number of Hosts:-**

Network A = 10

Network ID = 220.161.255.224

Broadcast ID =220.161.255.239

Network B = 30

Network ID = 220.161.255.192

Broadcast ID =220.161.255.223

Network C = 2038

Network ID = 220.161.240.0

Broadcast ID =220.161.247.255

Network D = 509

Network ID = 220.161.252.0

Broadcast ID =220.161.253.255

Network E = 4091

Network ID = 220.161.224.0

Broadcast ID =220.161.239.255

Network F = 16370

Network ID = 220.161.128.0

Broadcast ID =220.161.191.255

Network G = 41323

Network ID = 220.160.0.0

Broadcast ID =220.160.255.255

Network H = 8175

Network ID = 220.161.192.0

Broadcast ID =220.161.223.255

Network I = 1004

Network ID = 220.161.248.0

Broadcast ID =220.161.251.255

Network J = 23441

Network ID = 220.161.0.0

Broadcast ID =220.161.127.255

Network L = 106

Network ID = 220.161.255.0

Broadcast ID =220.161.255.127

Network M = 61

Network ID = 220.161.255.128

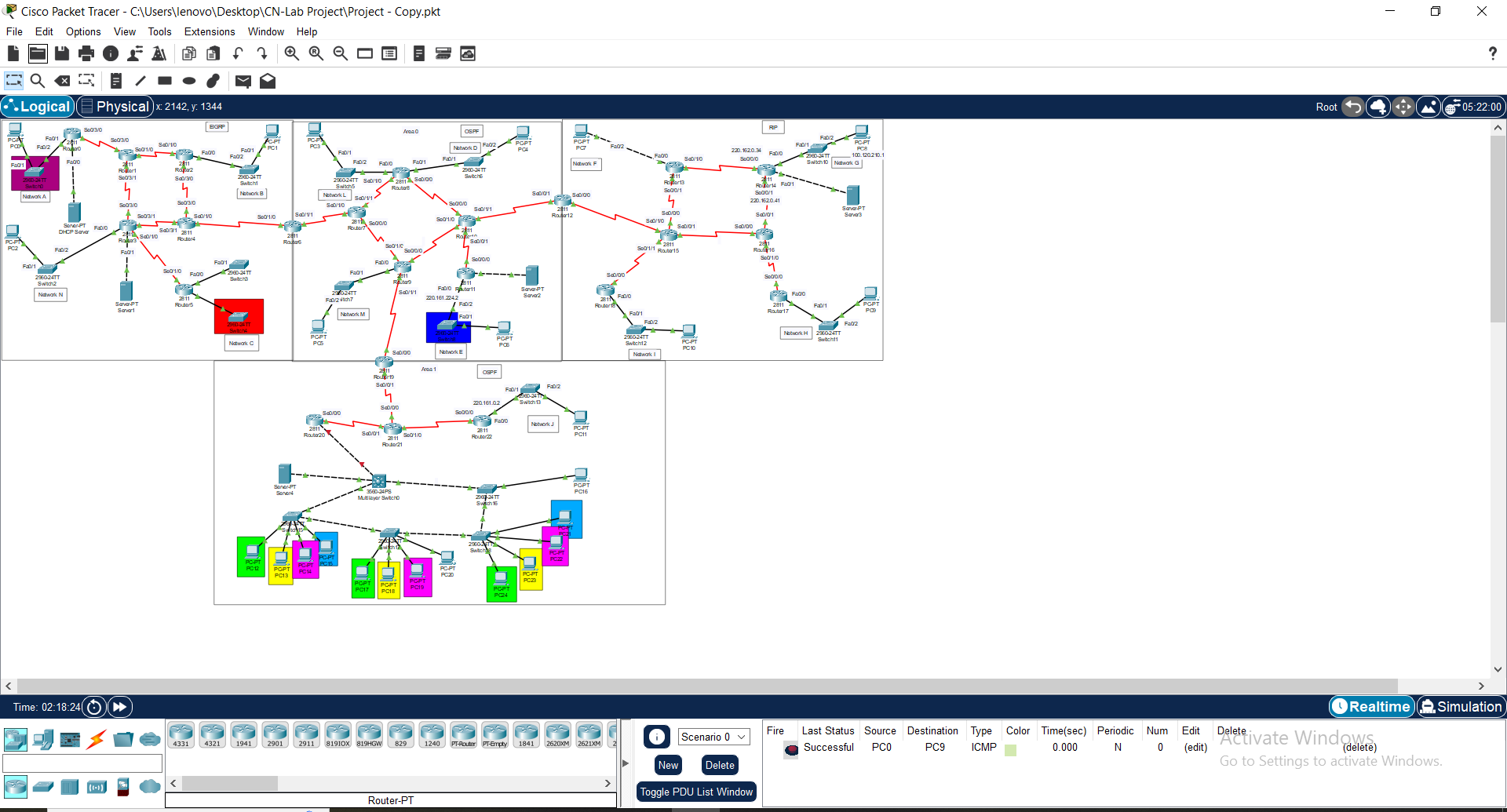
Broadcast ID =220.161.255.191

Network N = 244

Network ID = 220.161.254.0

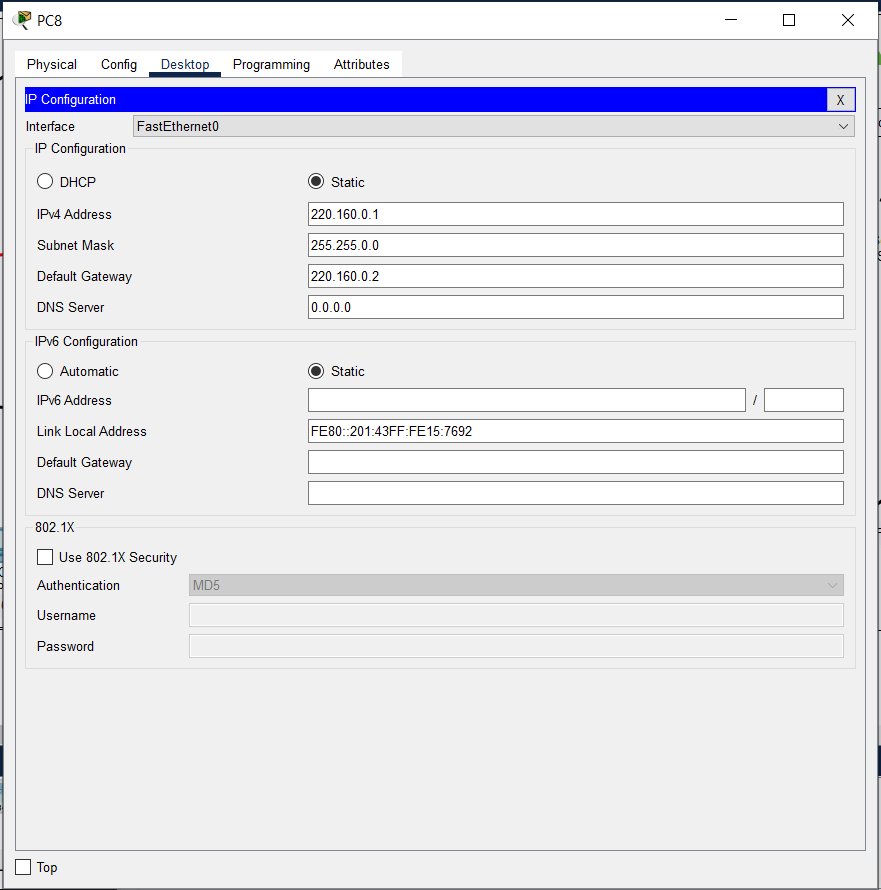
Broadcast ID =220.161.254.255

***Network Topology***

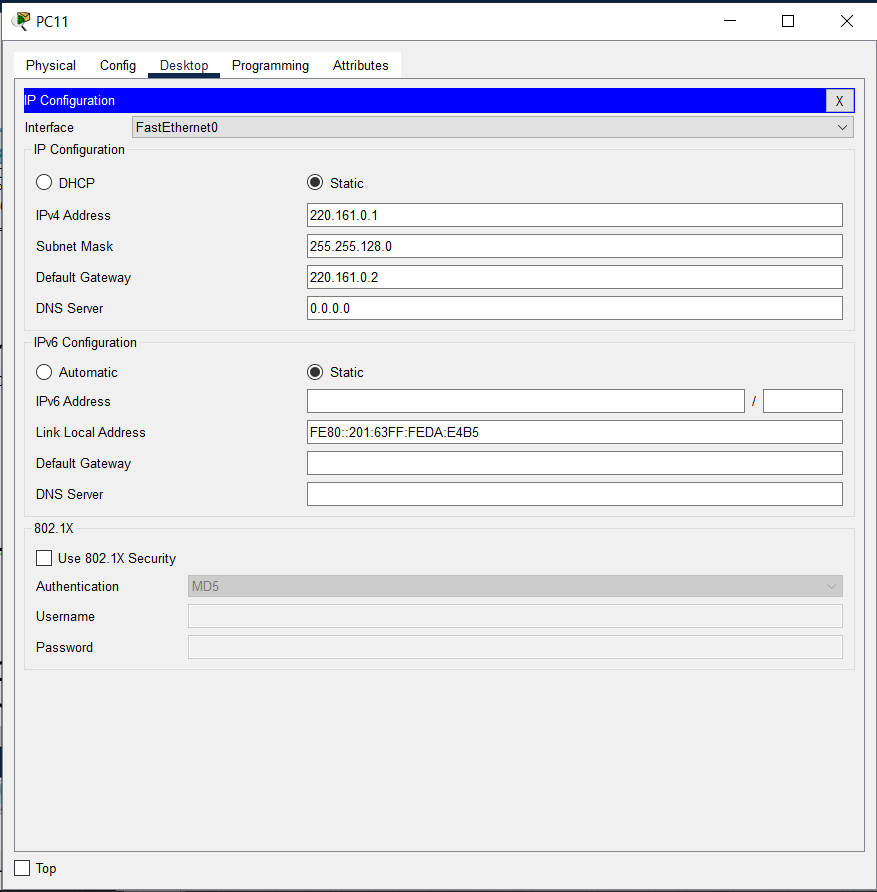


***VLSM***

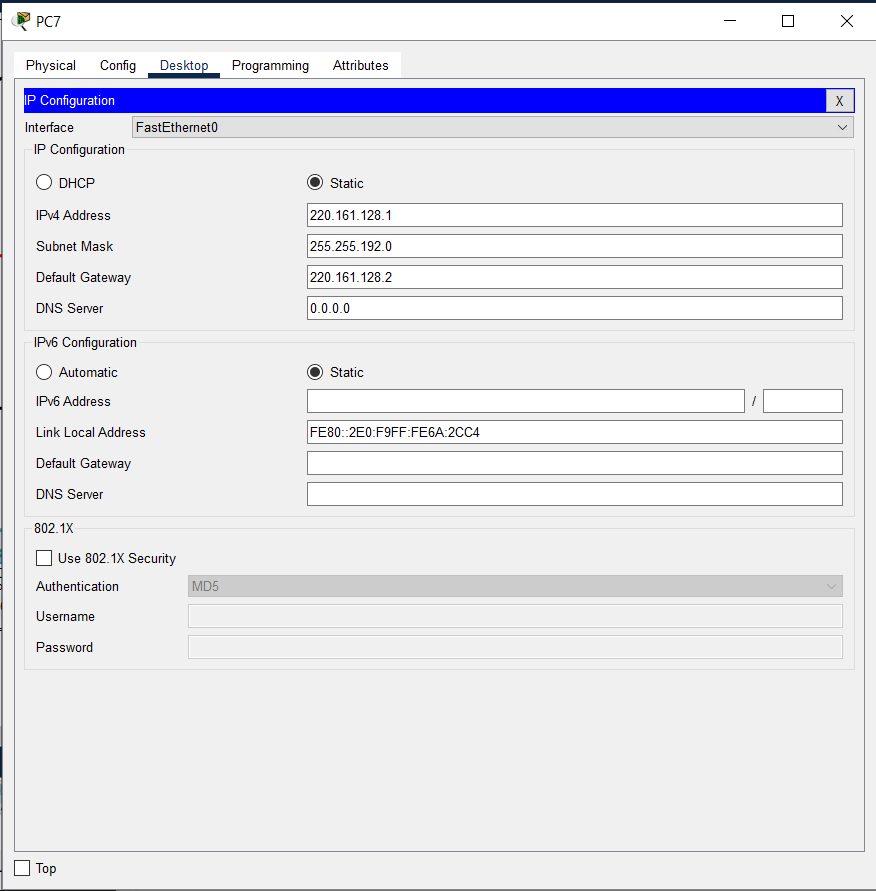
**Network G: -**



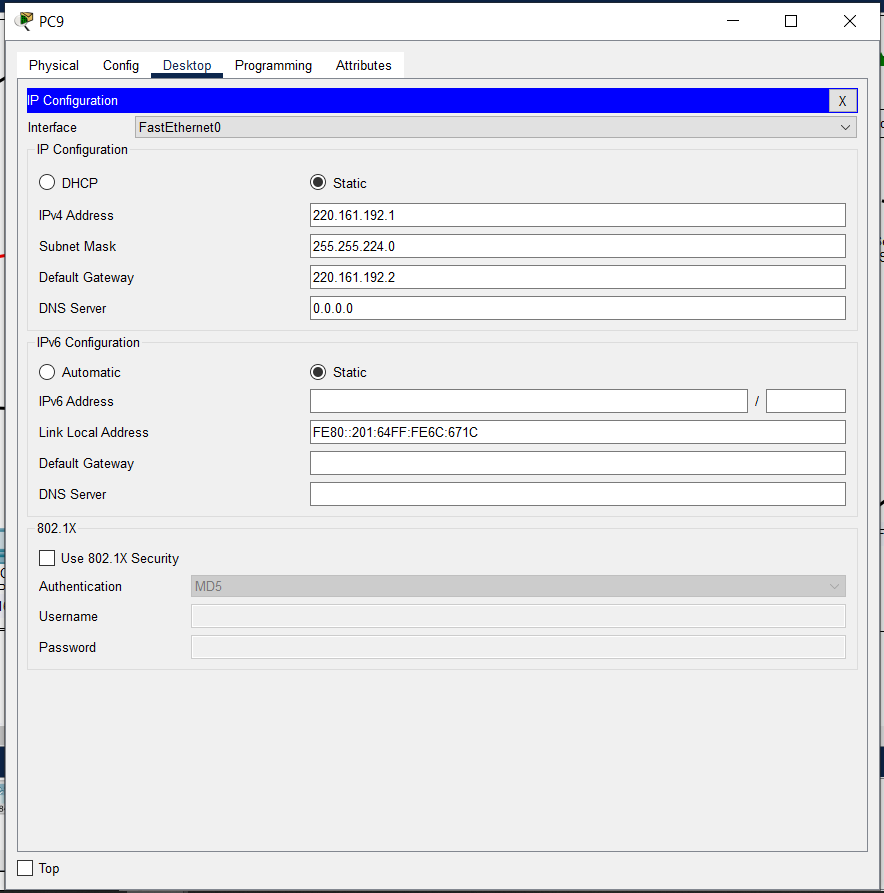
**Network J: -**



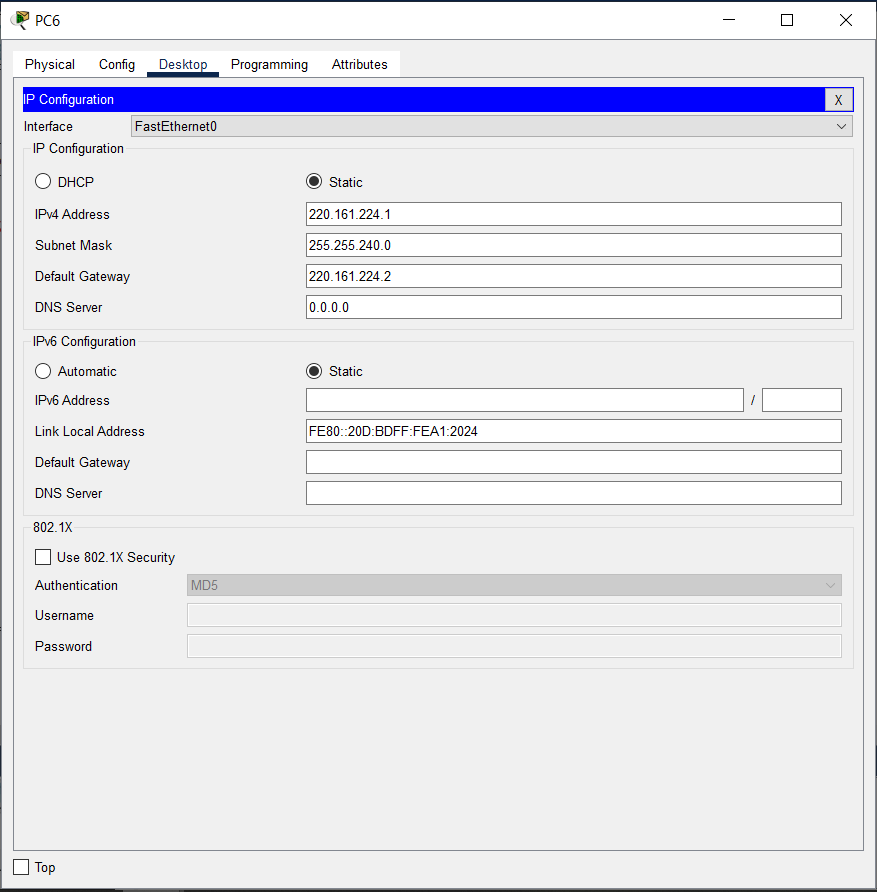
**Network F: -**



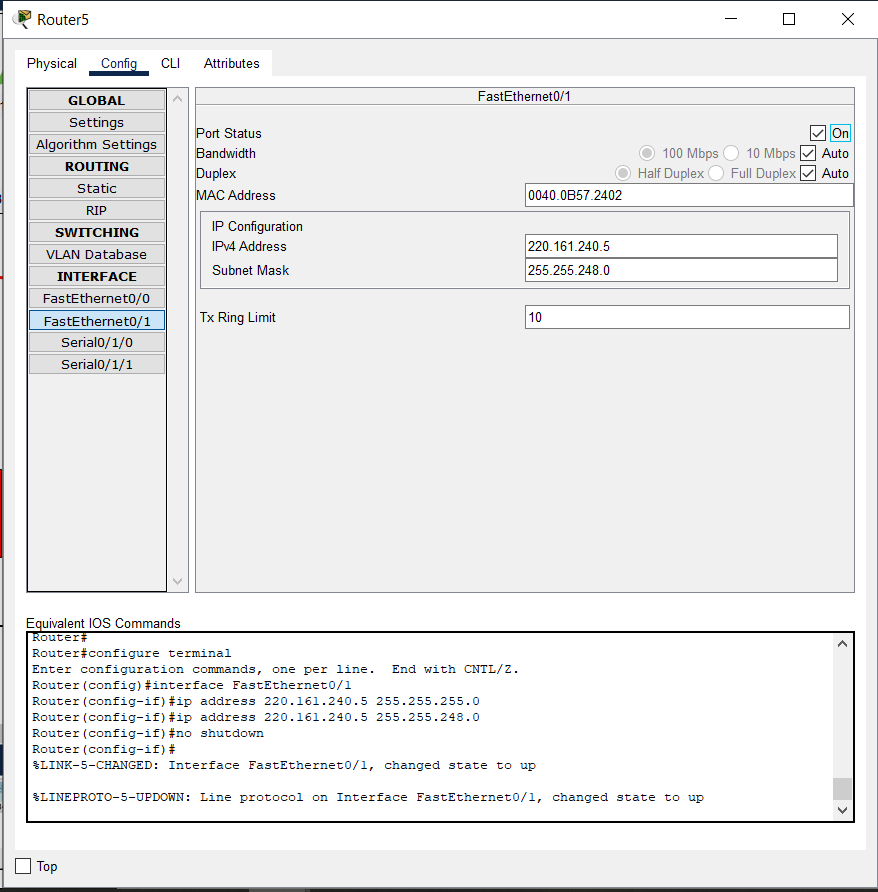
**Network H: -**



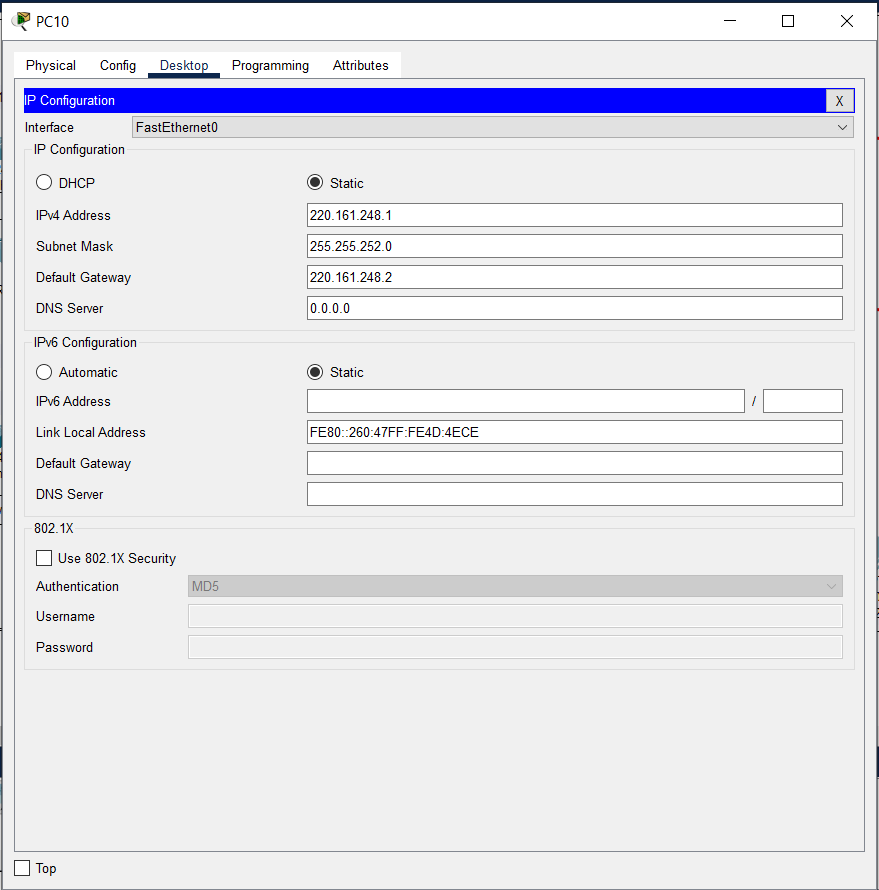
**Network E: -**



**Network C: -**



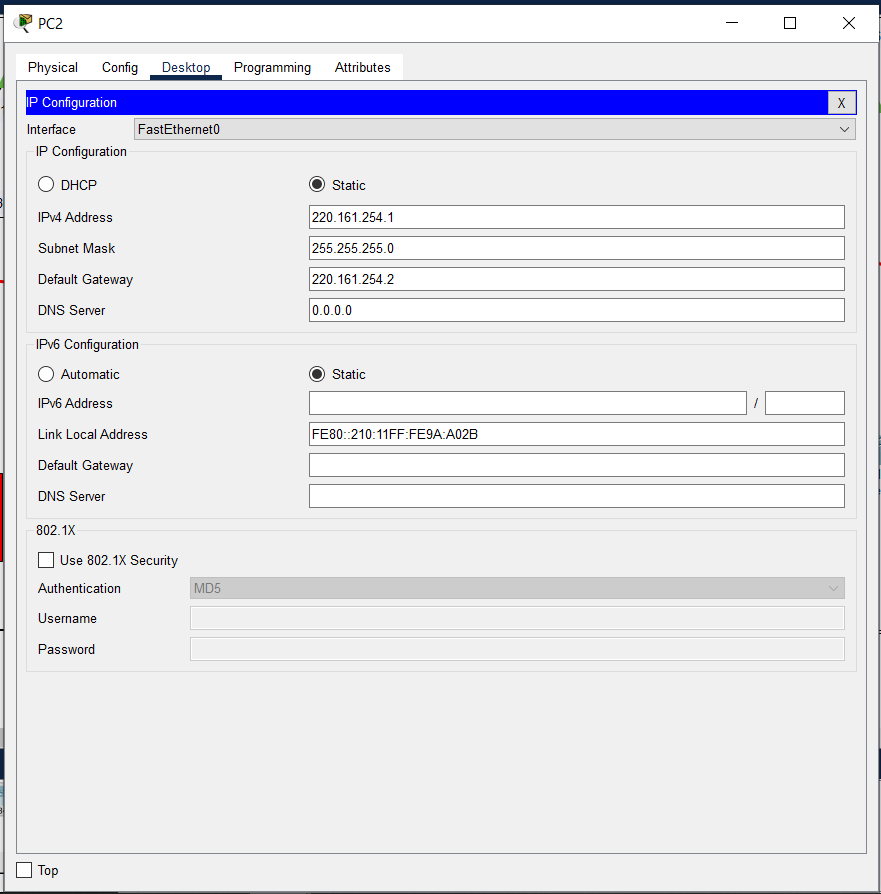
**Network I: -**



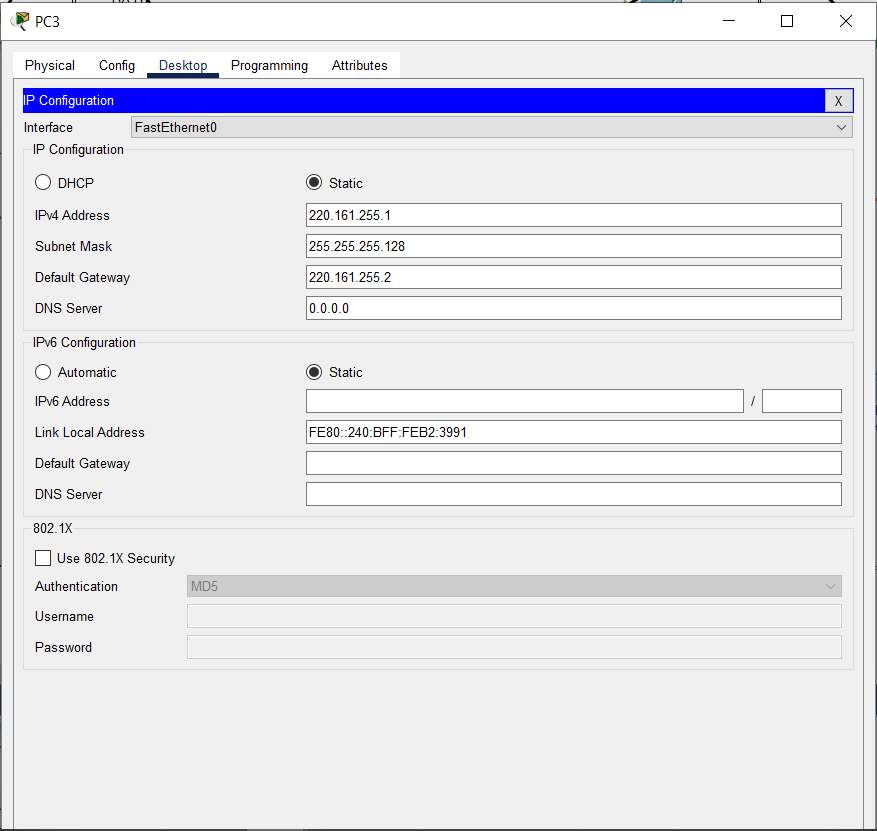
**Network D: -**



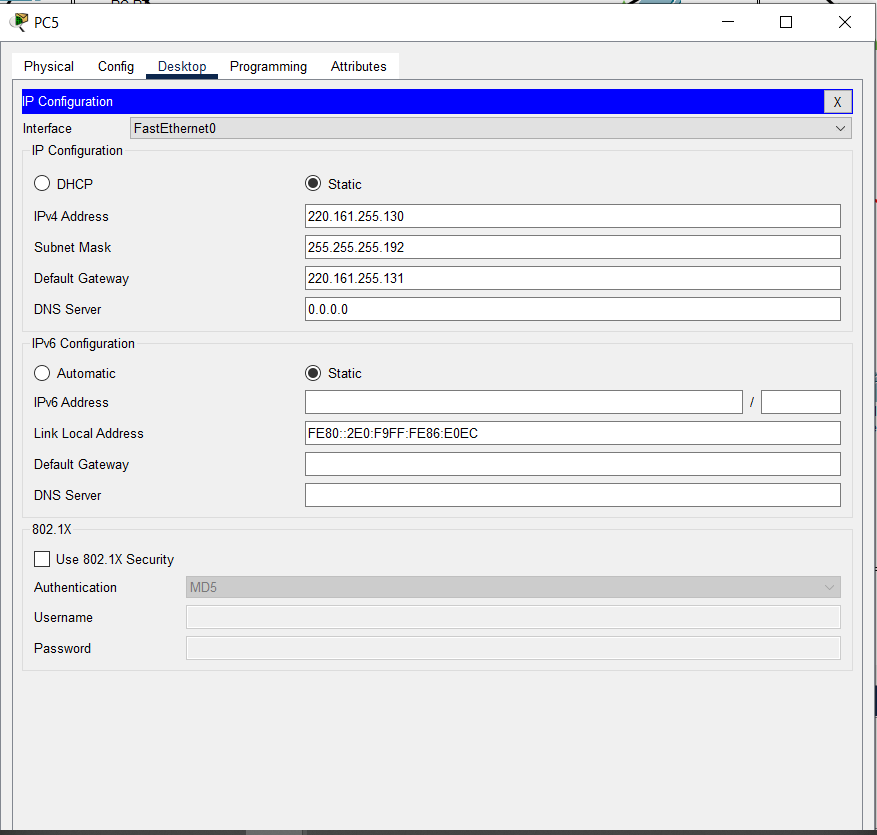
**Network N: -**



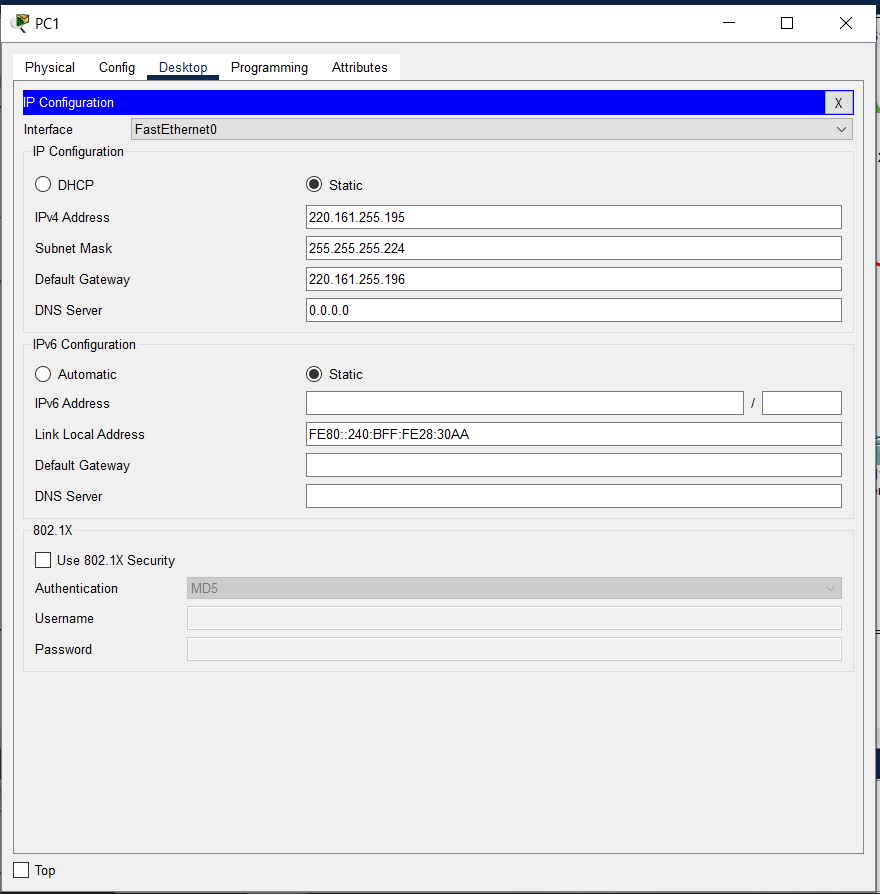
**Network L: -**



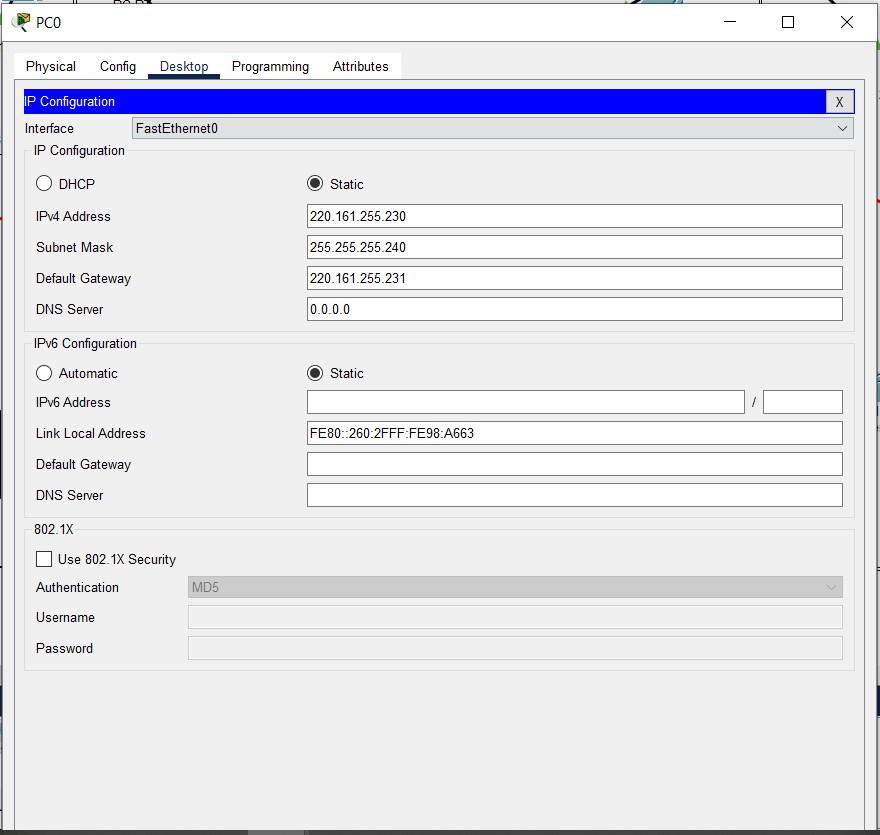
**Network M: -**



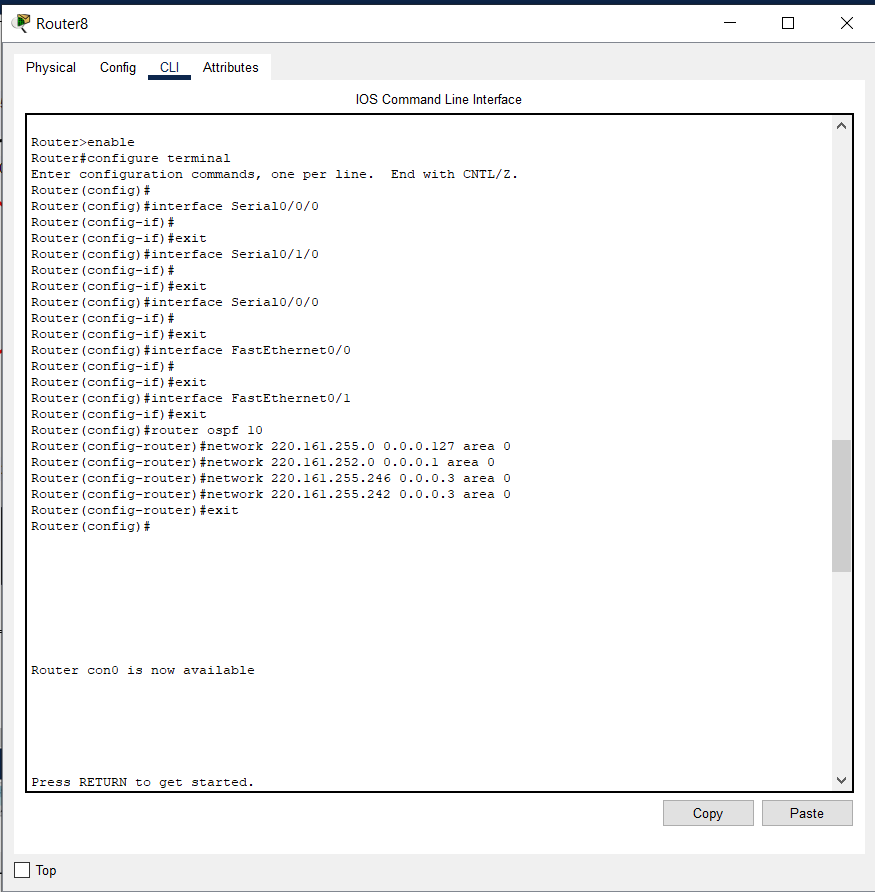
**Network B: -**

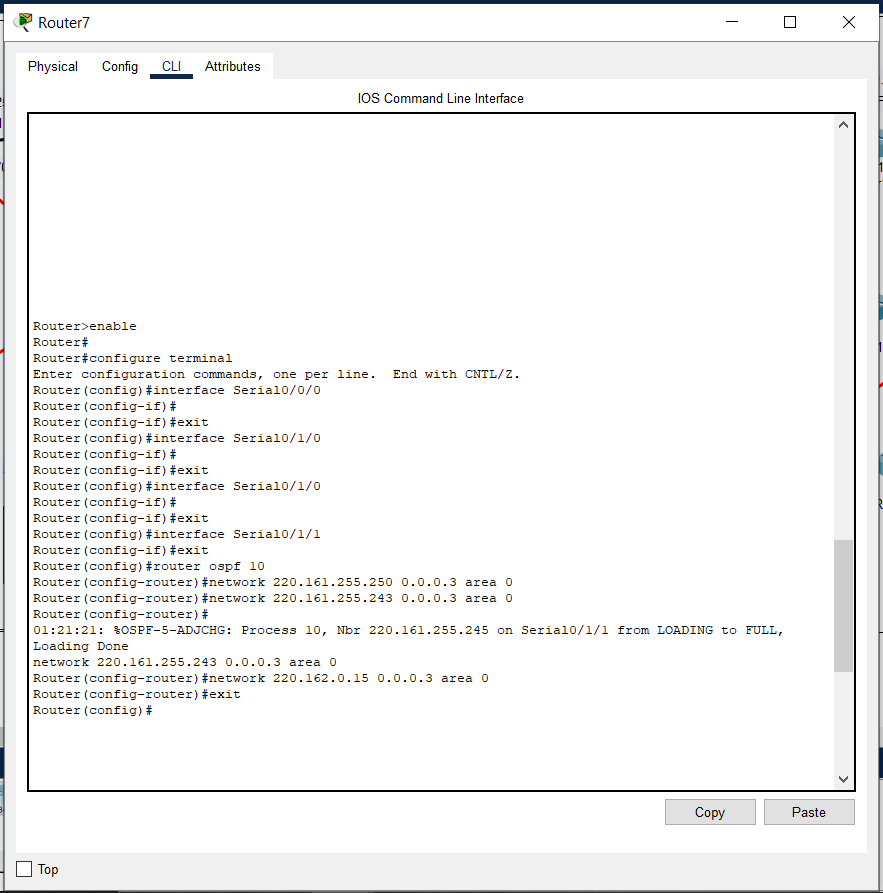


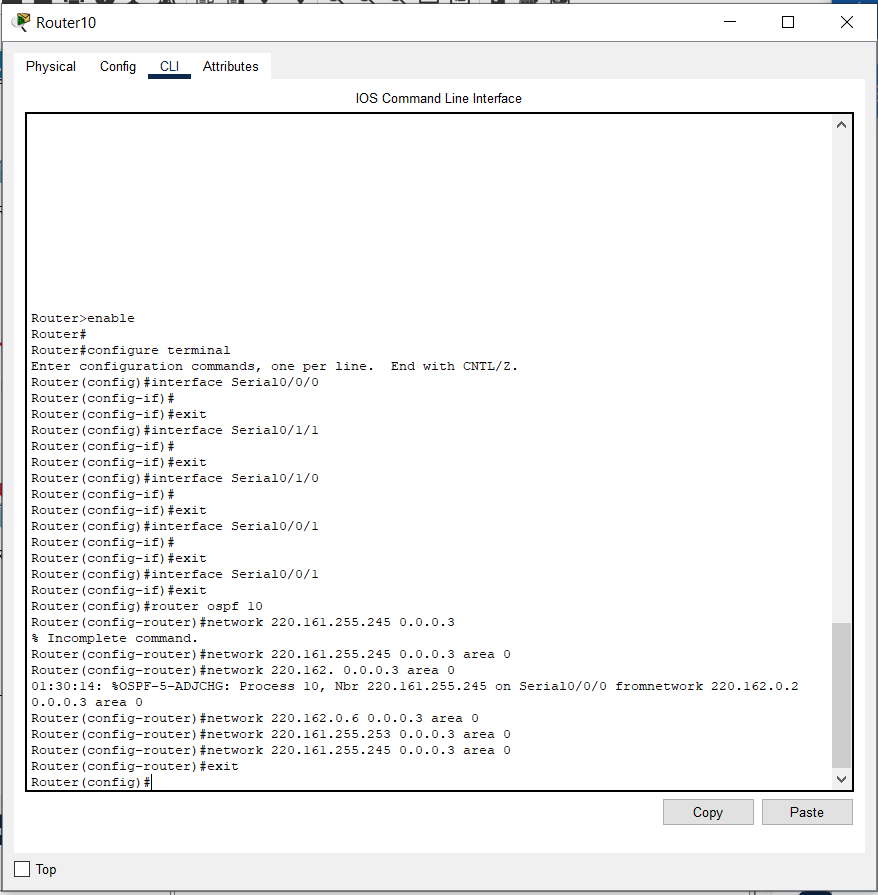
**Network A: -**

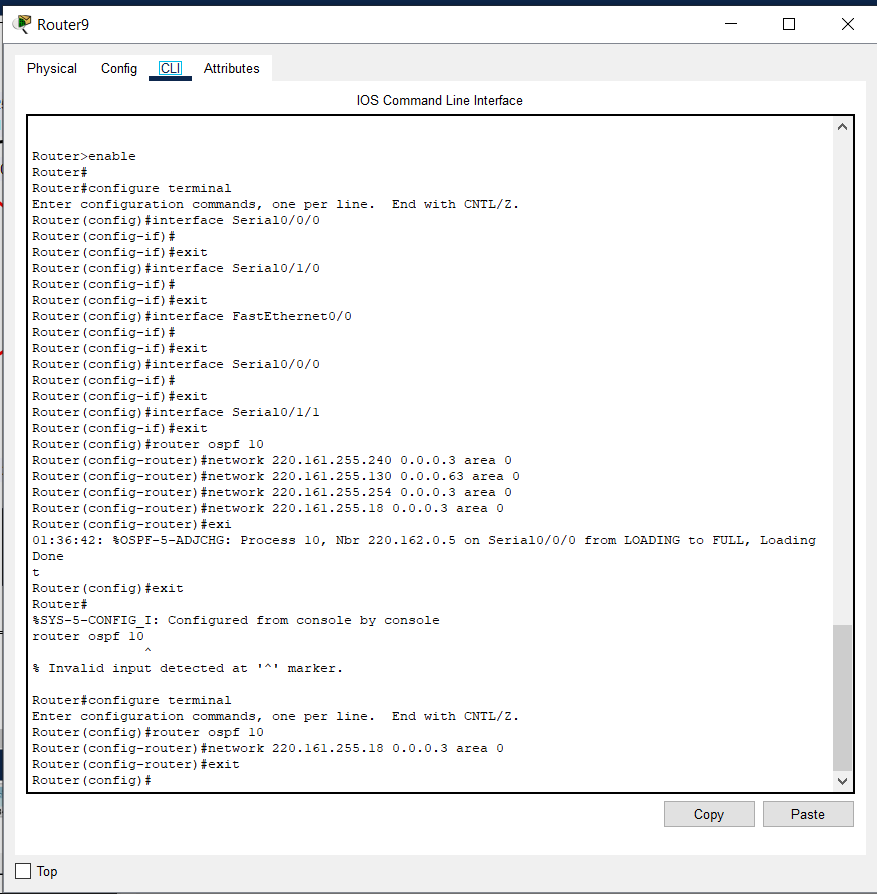


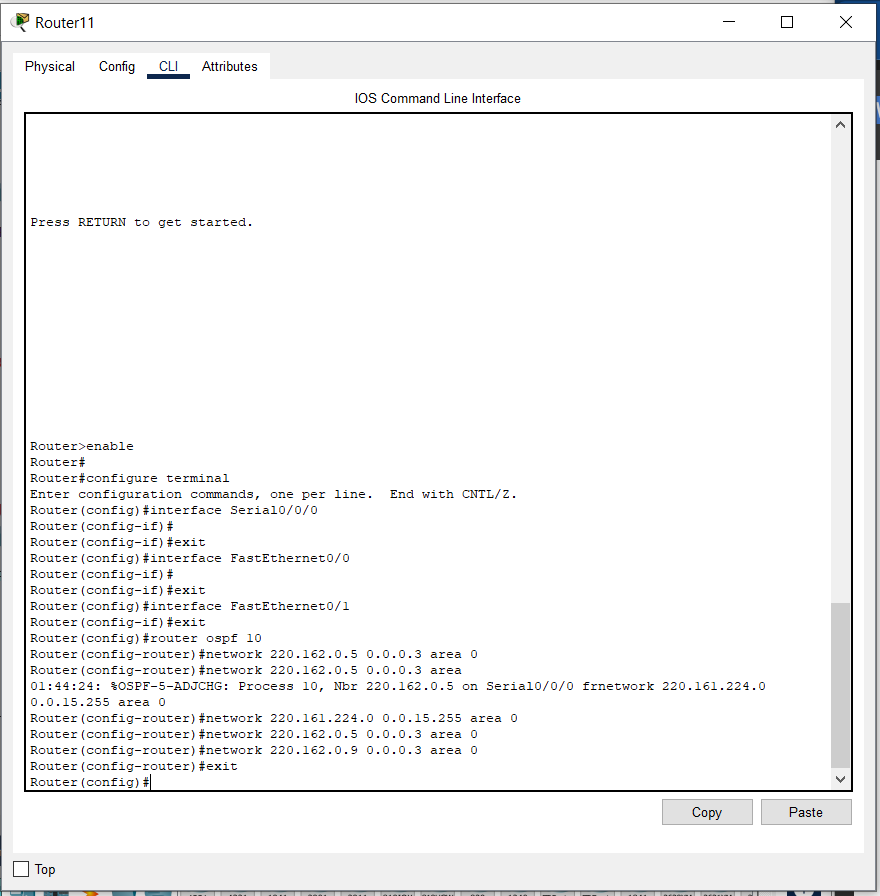
***OSPF(Area 0,1)***

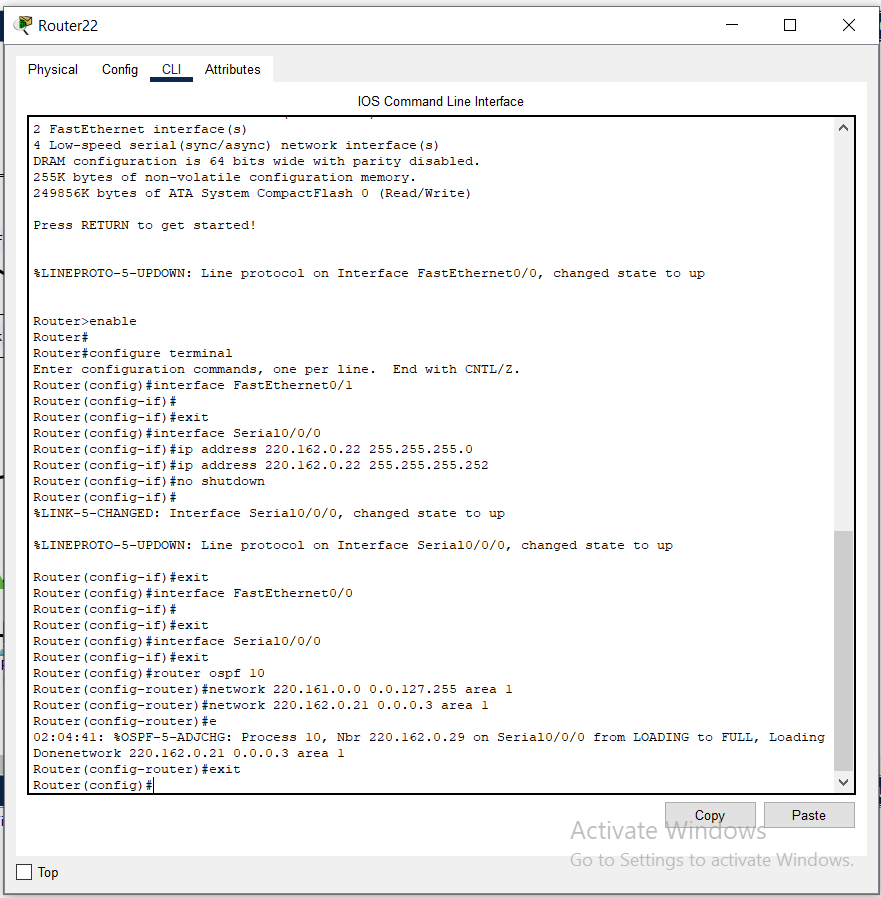


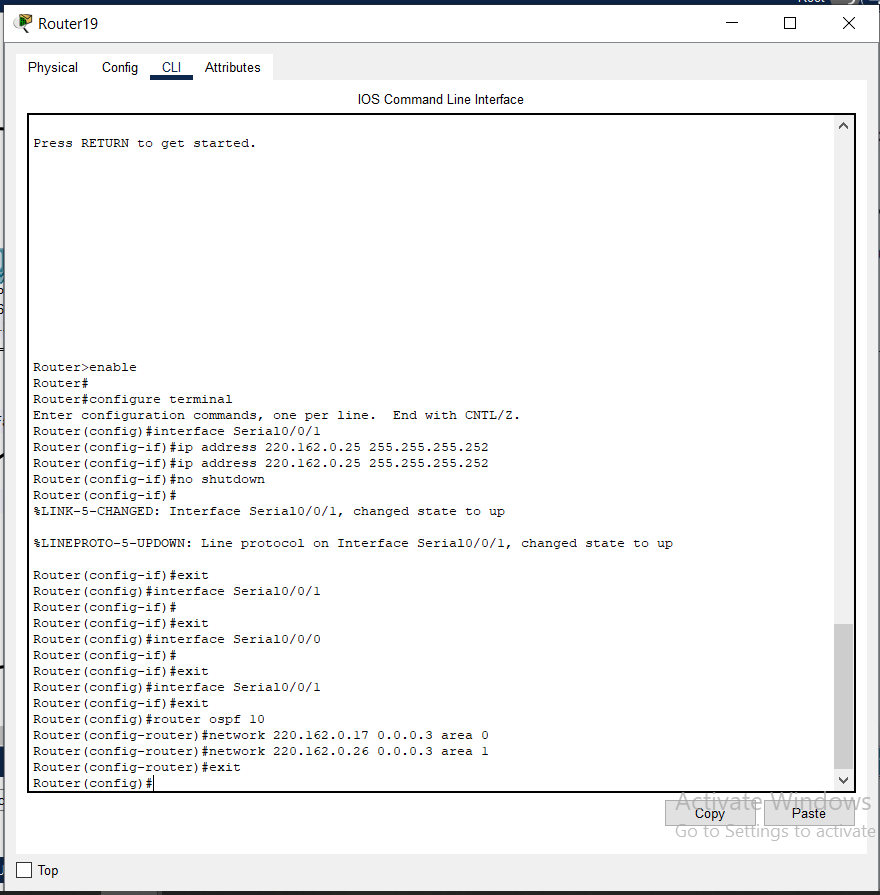


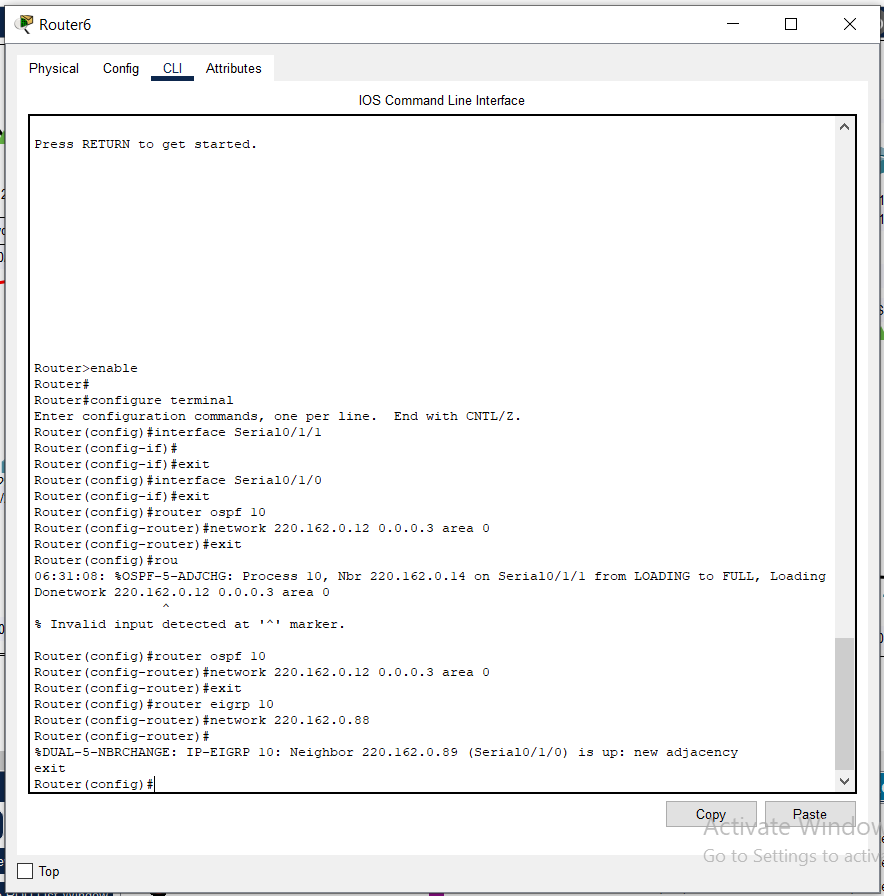






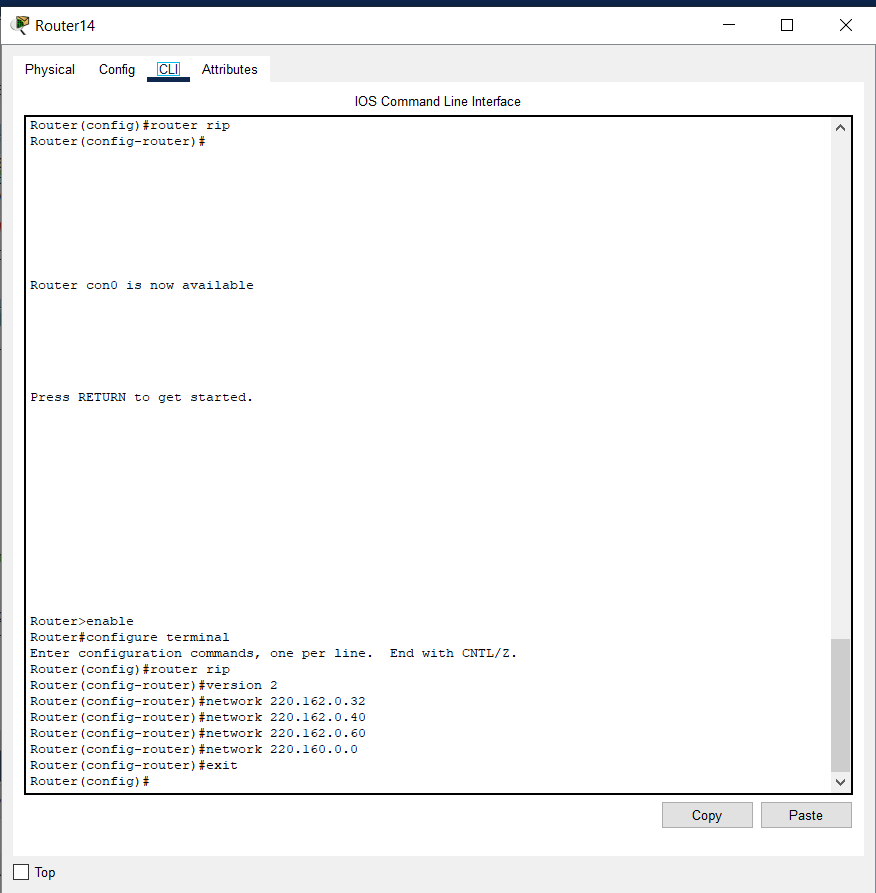


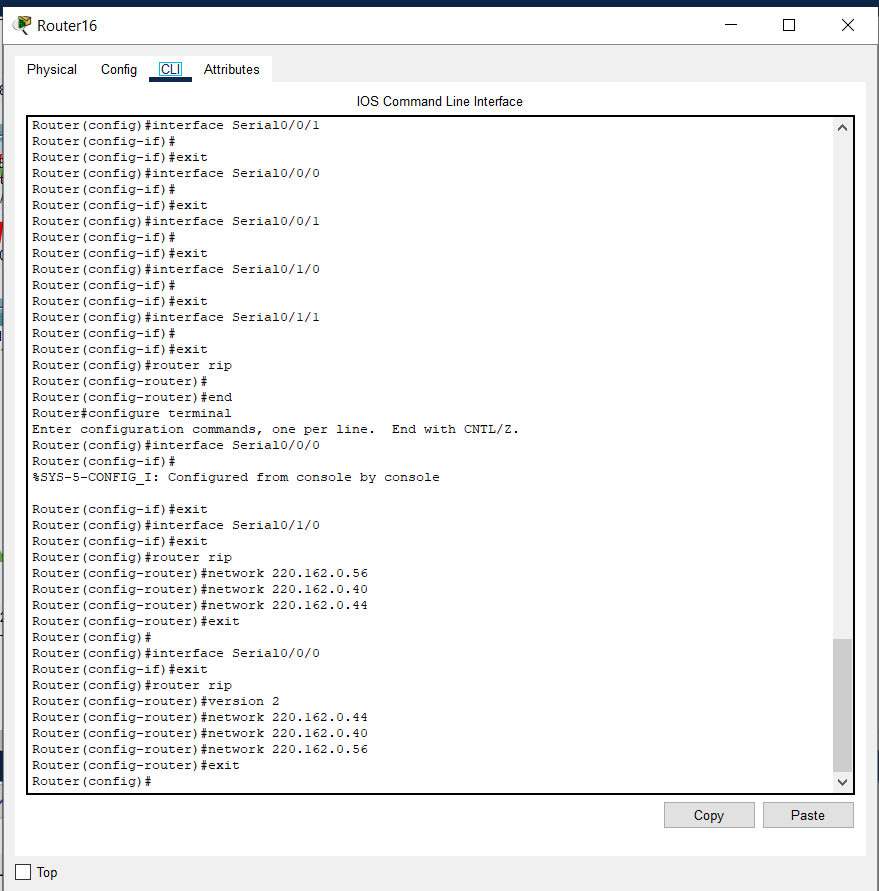


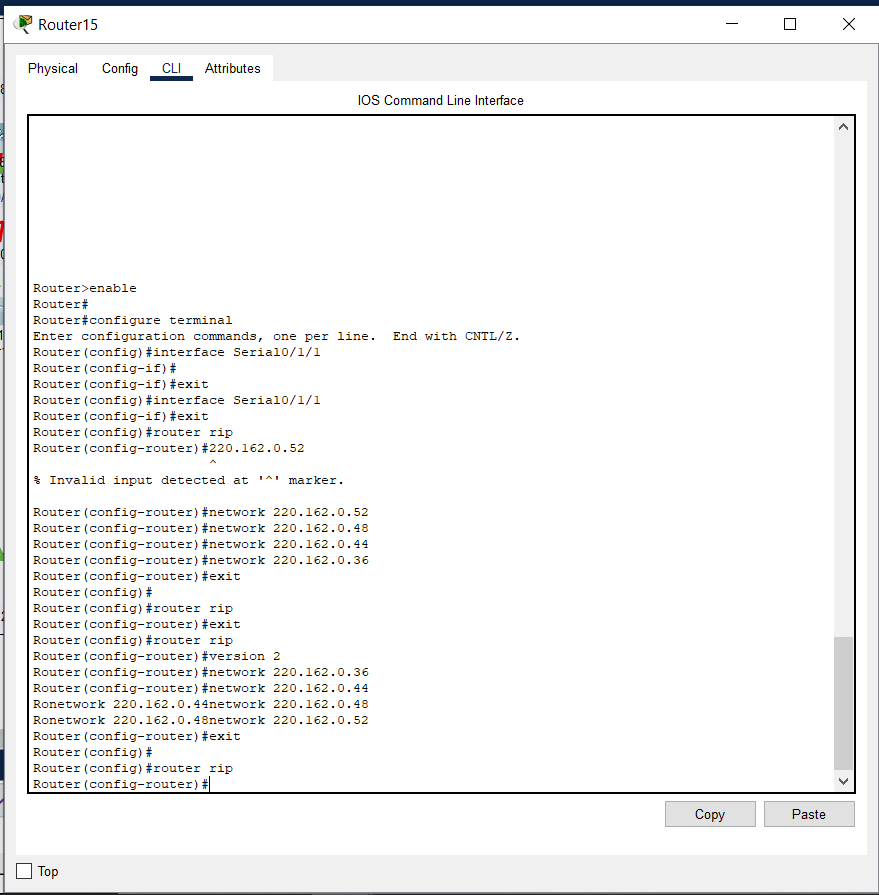


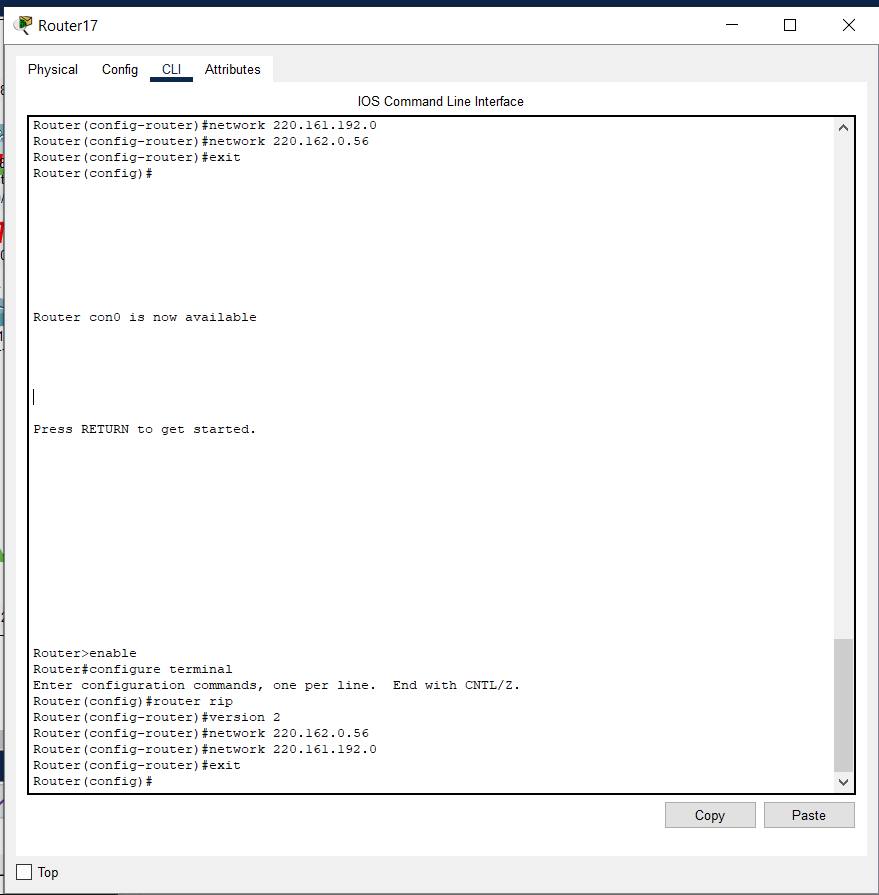
***RIP***

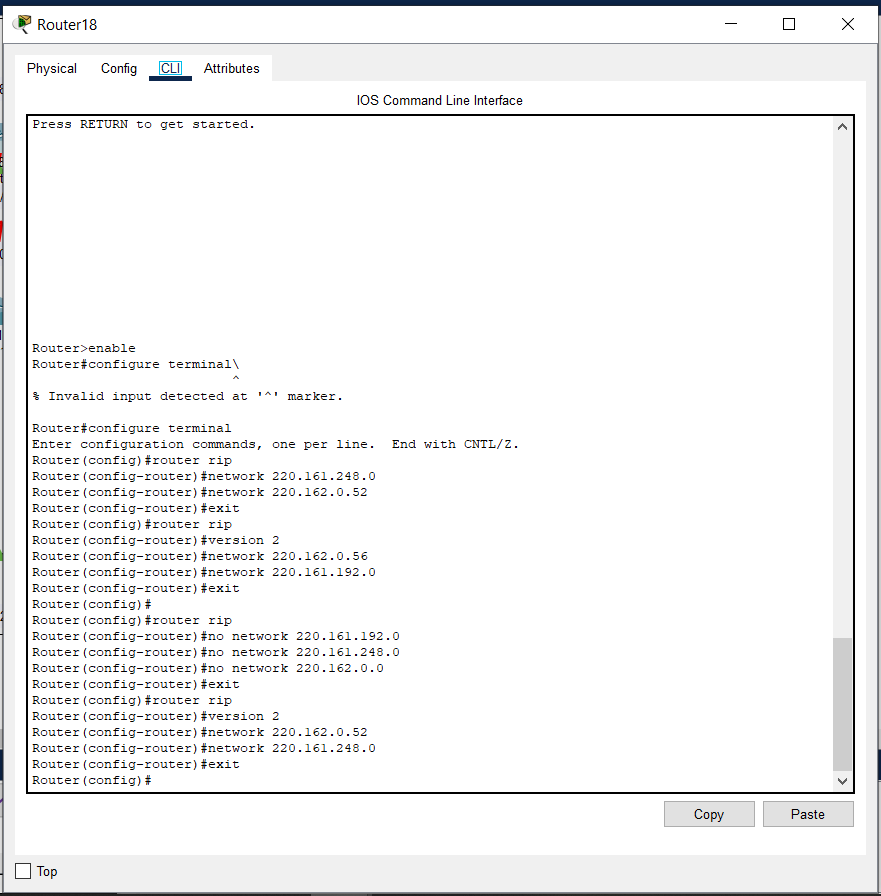




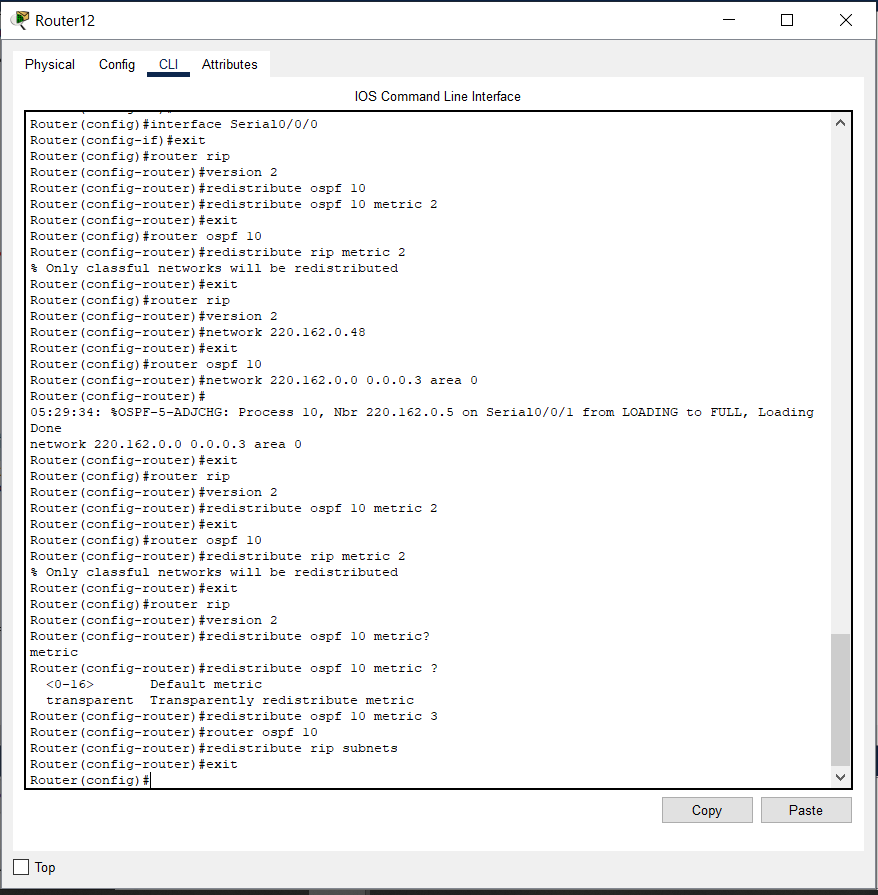




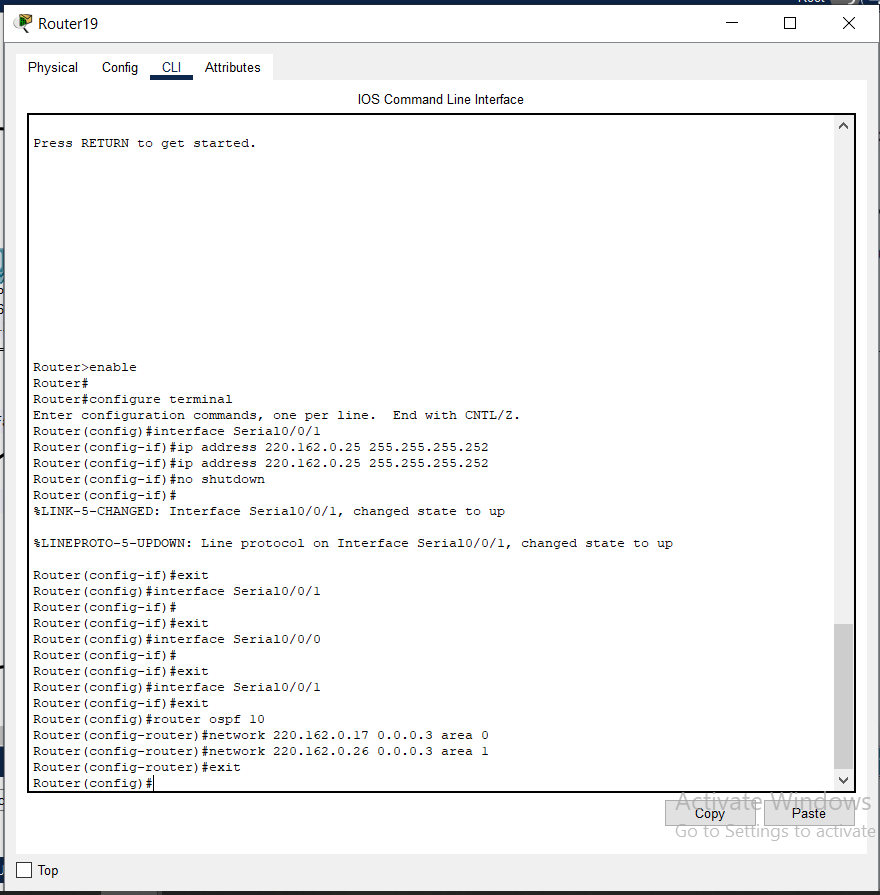




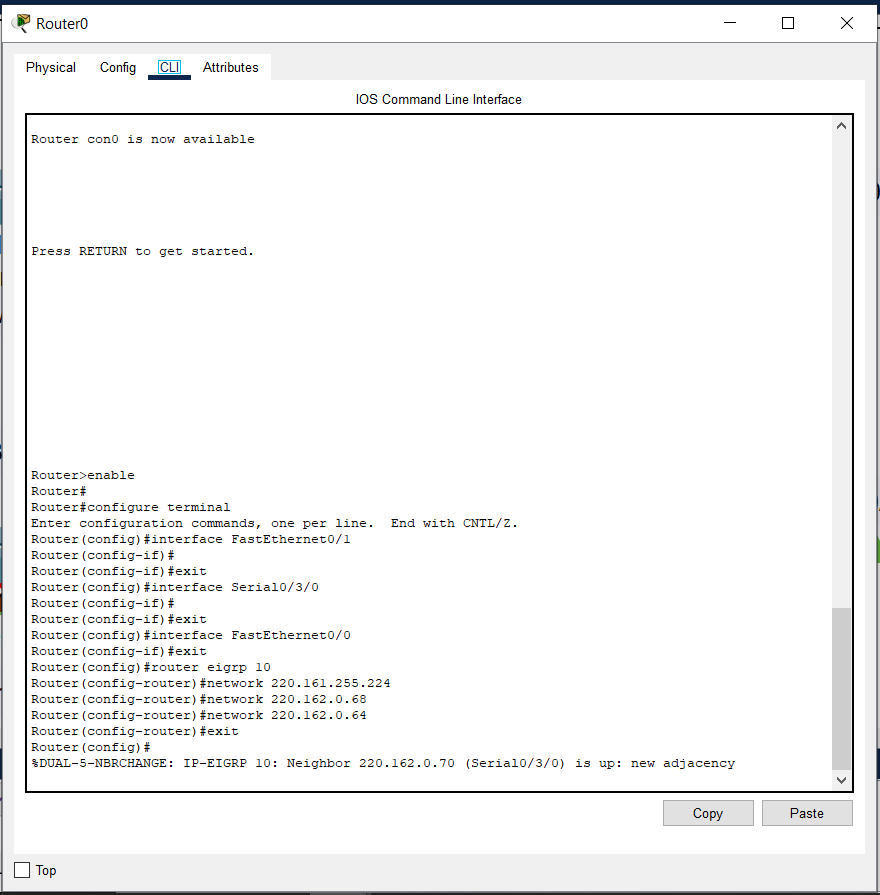
***Redistribution rip and ospf***

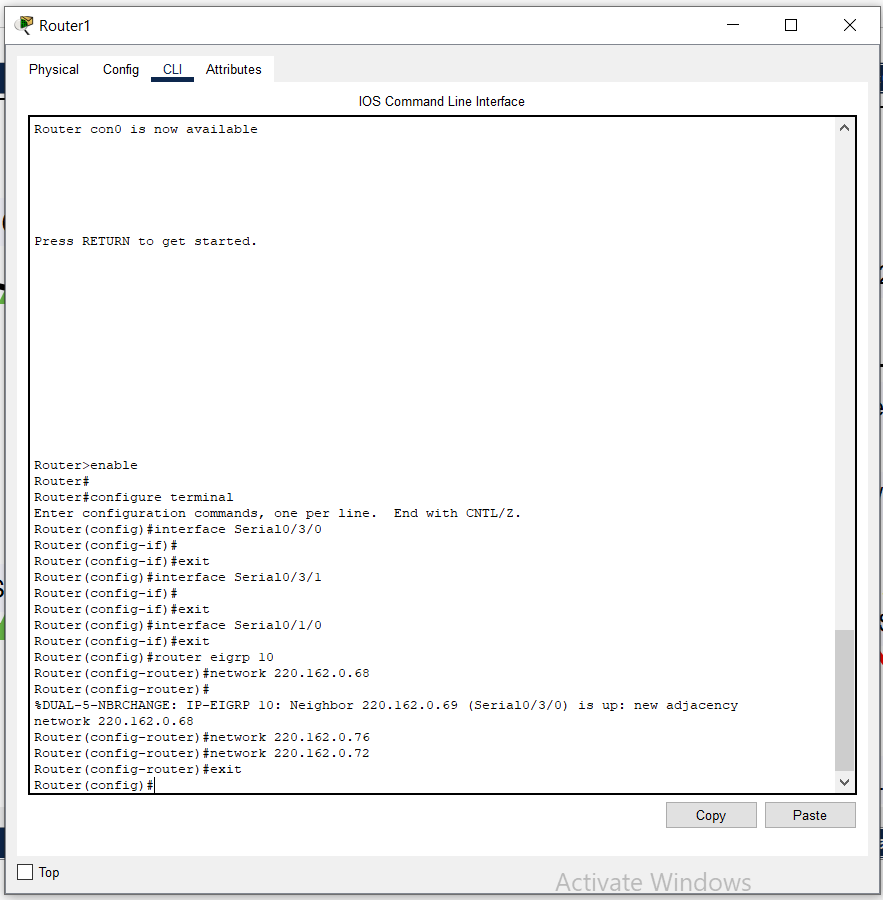


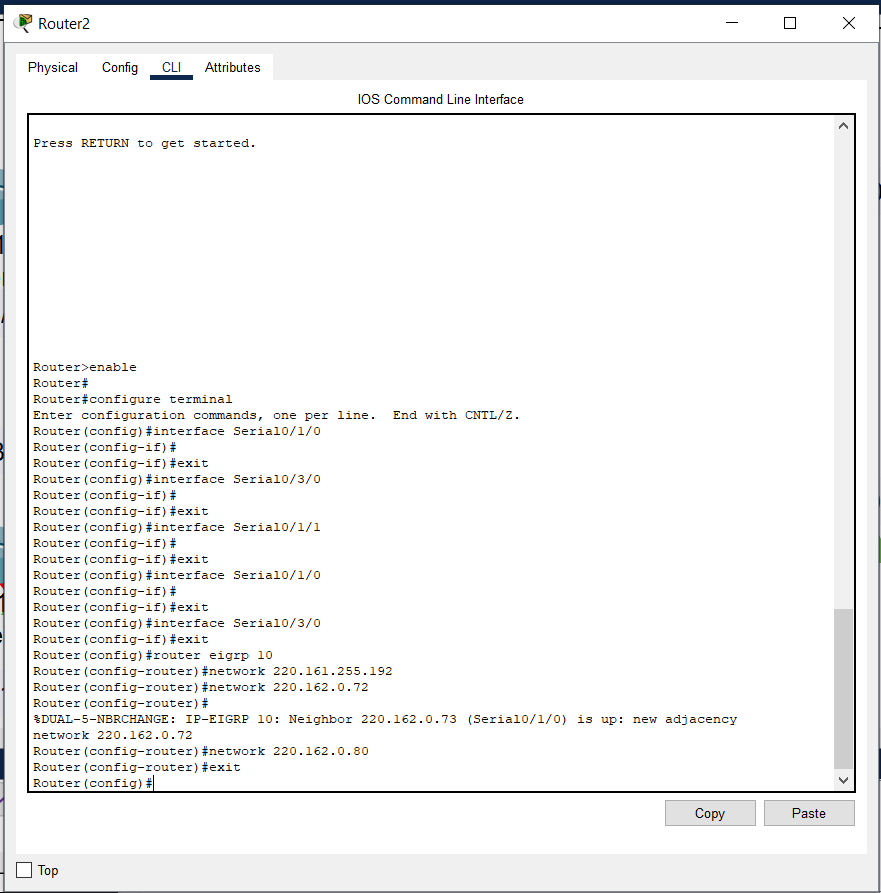
***Redistribution ospf and ospf***

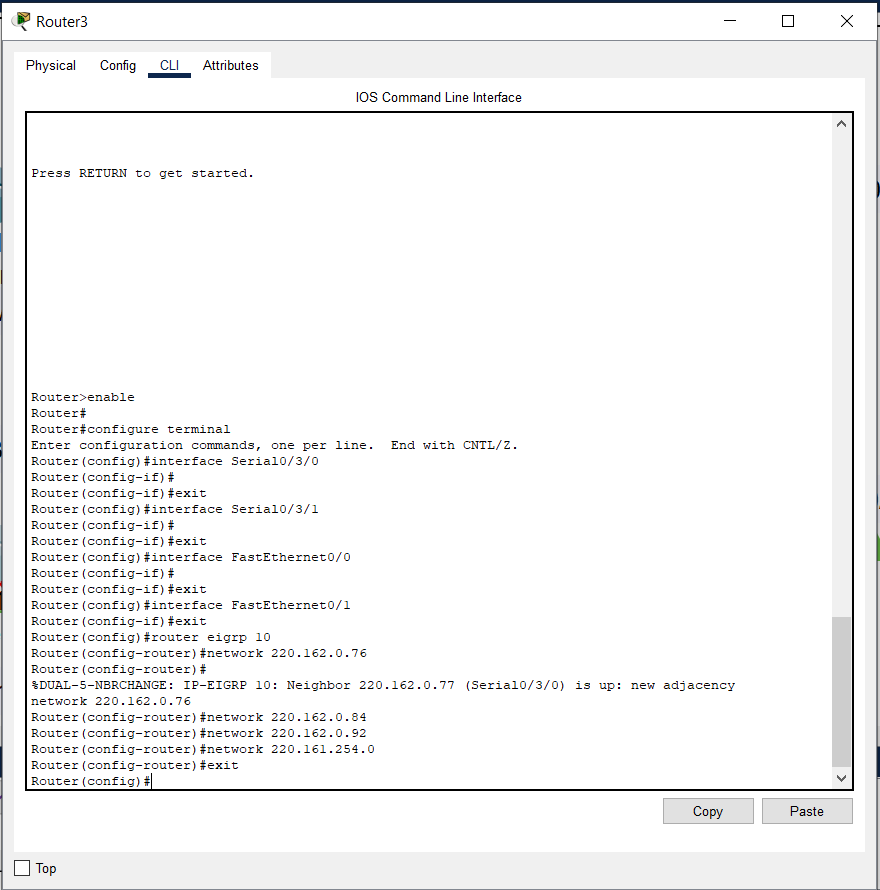


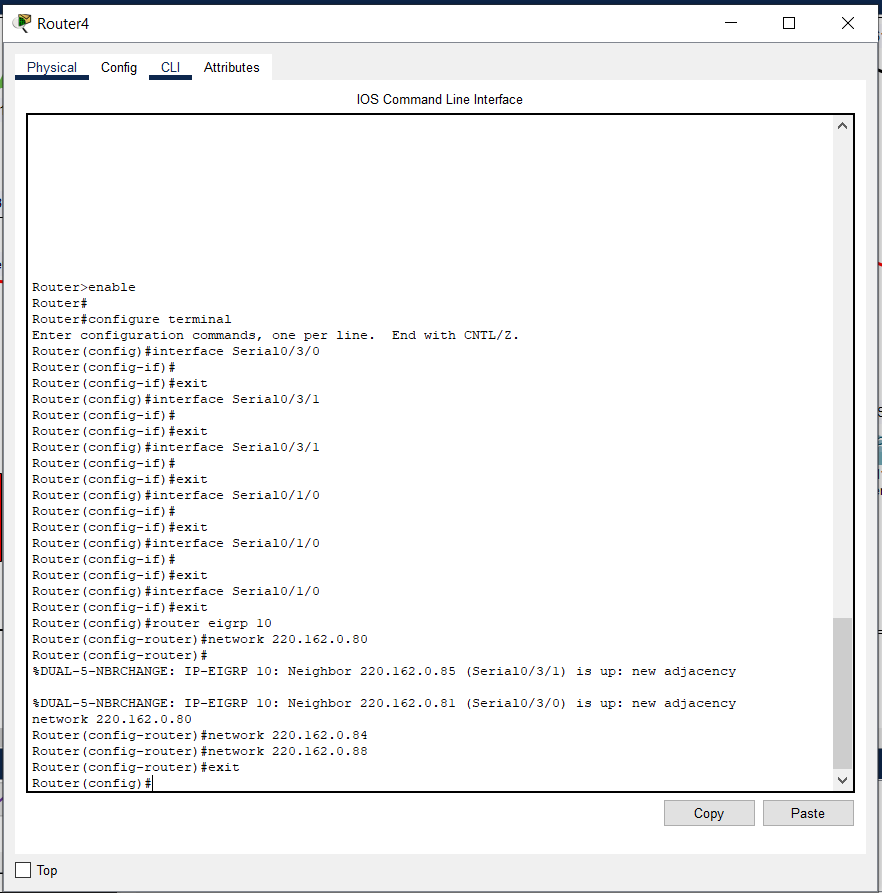
***EIGRP***

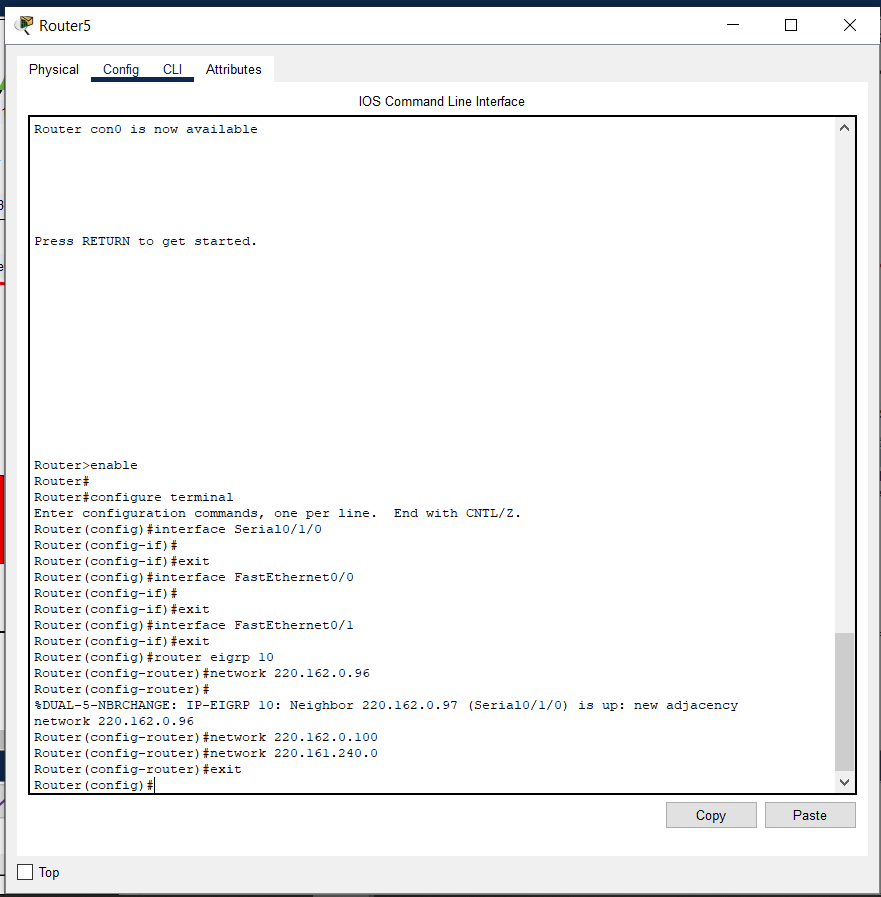


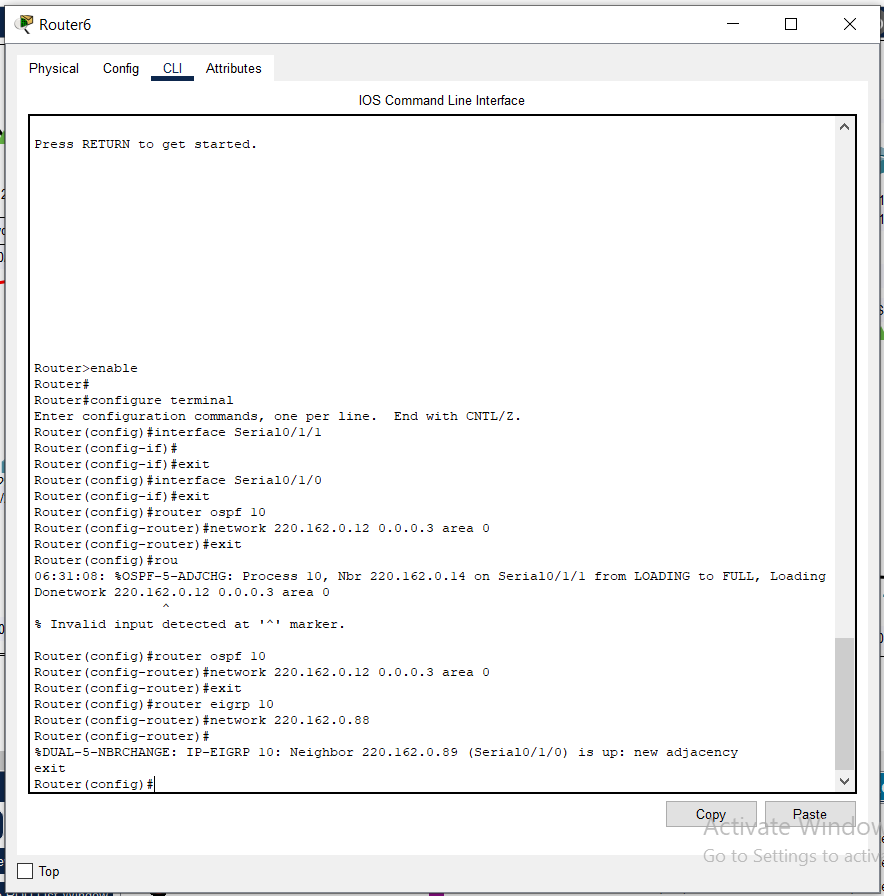




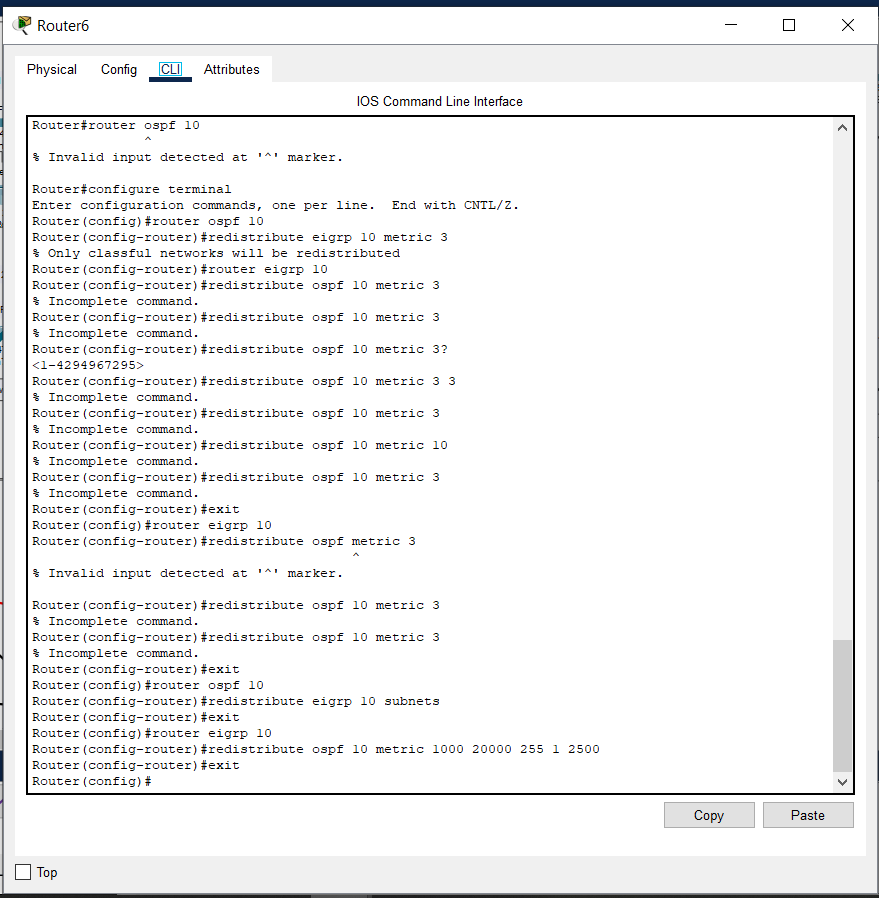








***Redistribution eigrp and ospf***

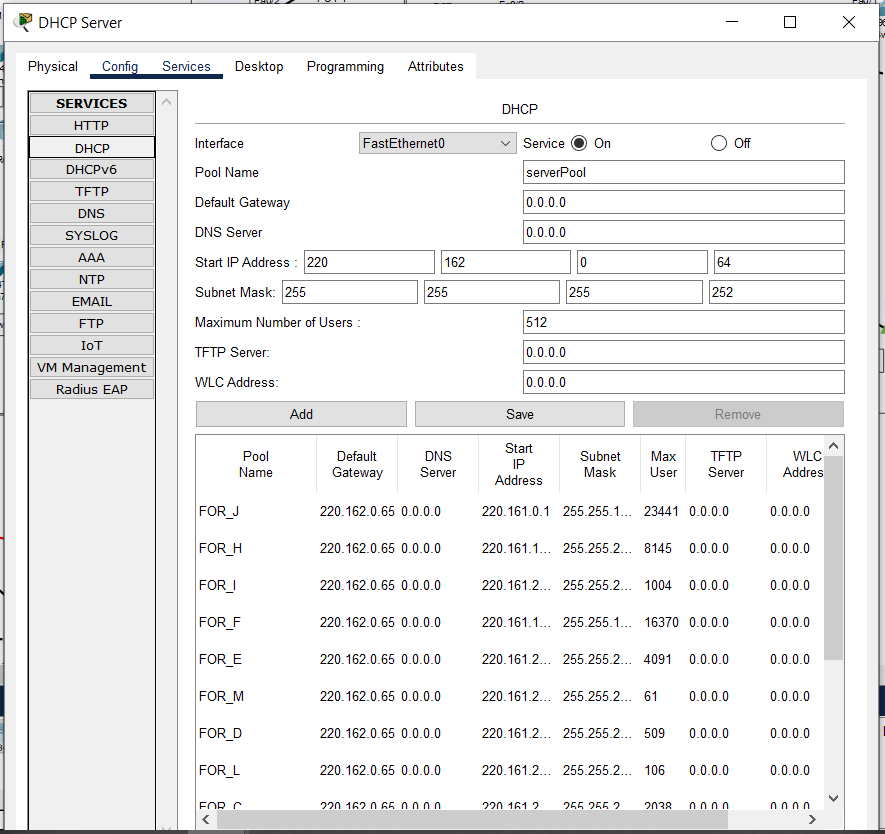


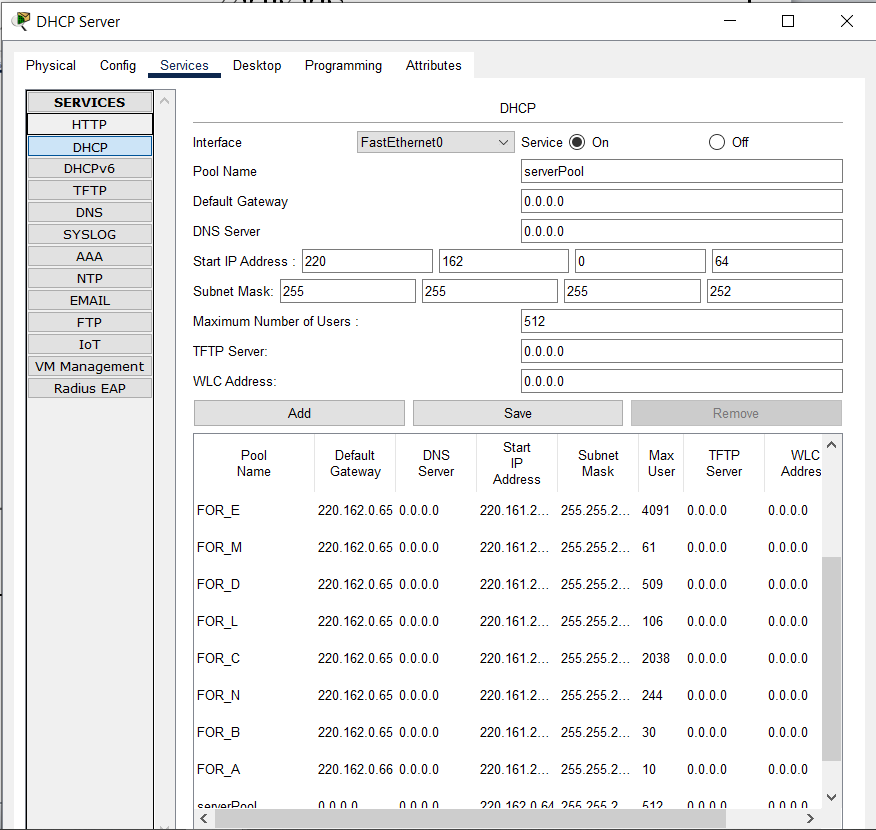
***DHCP***

**Helper-Address: -**

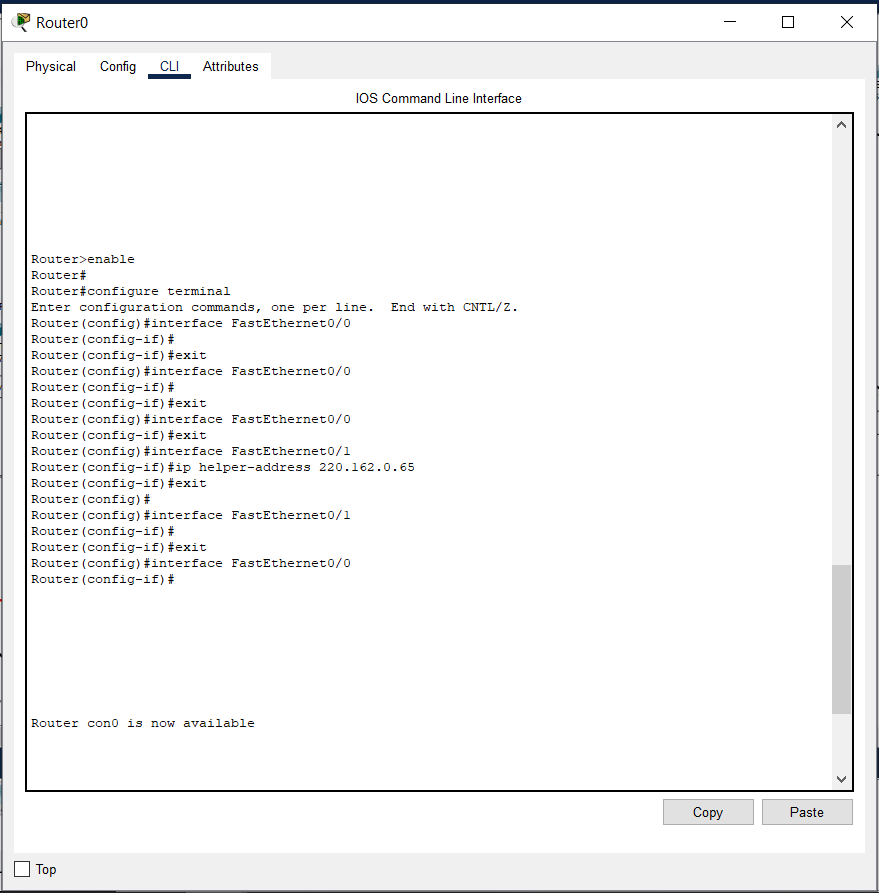
**220.162.0.65**

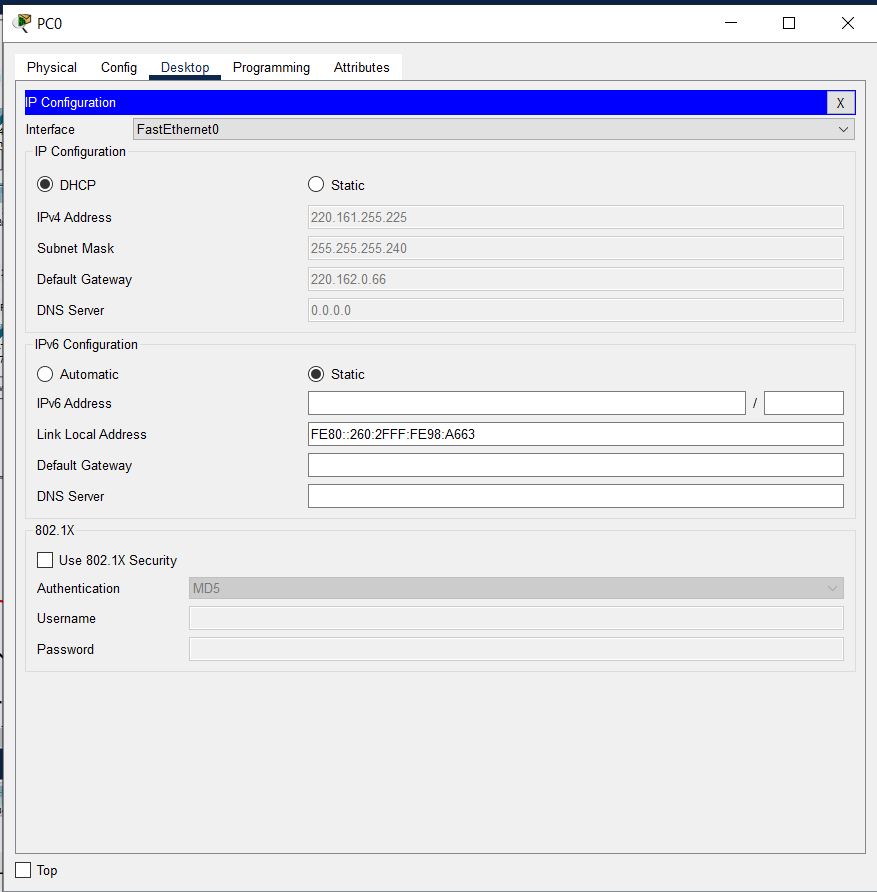
**DHCP Server: -**



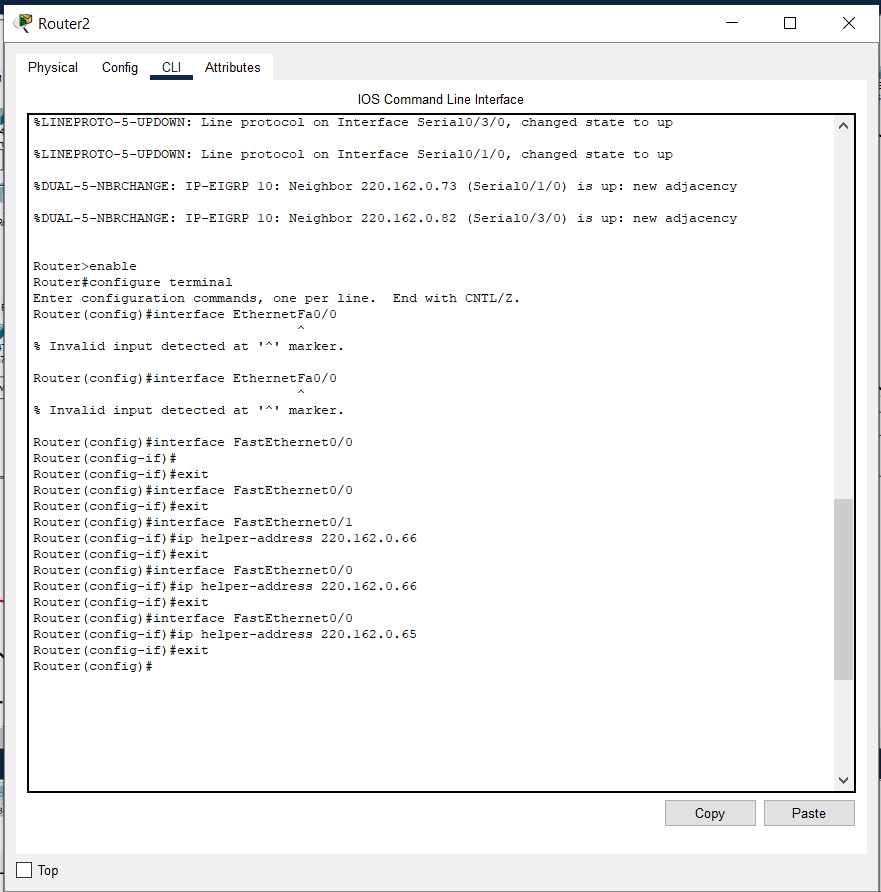


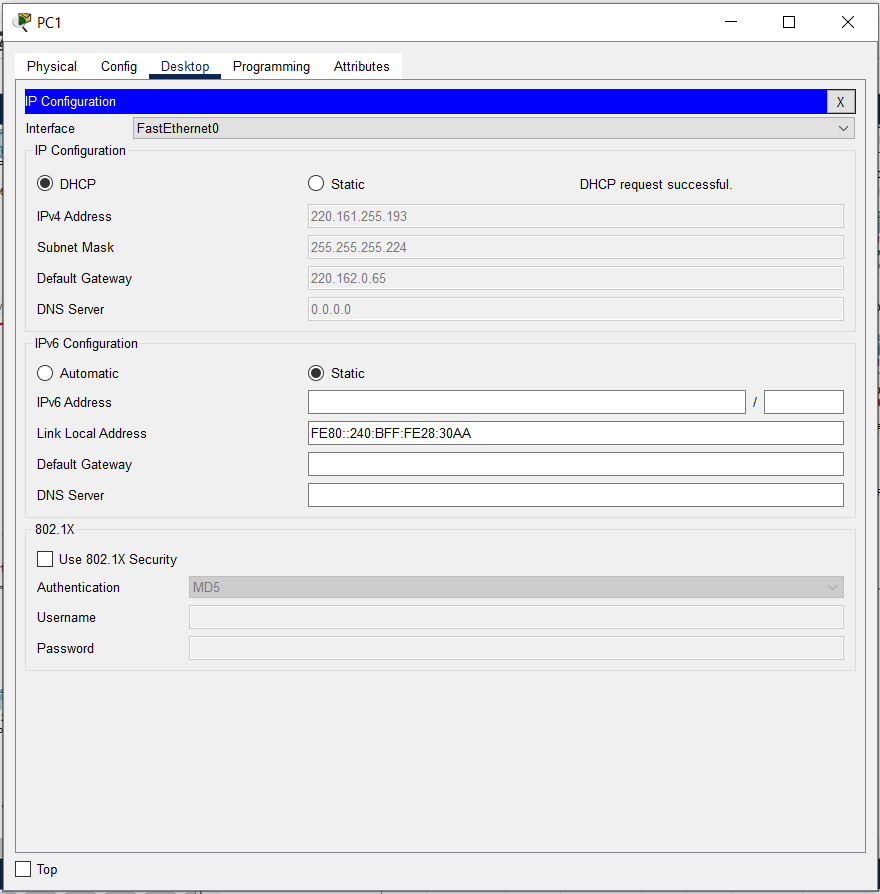
**Network A: -**



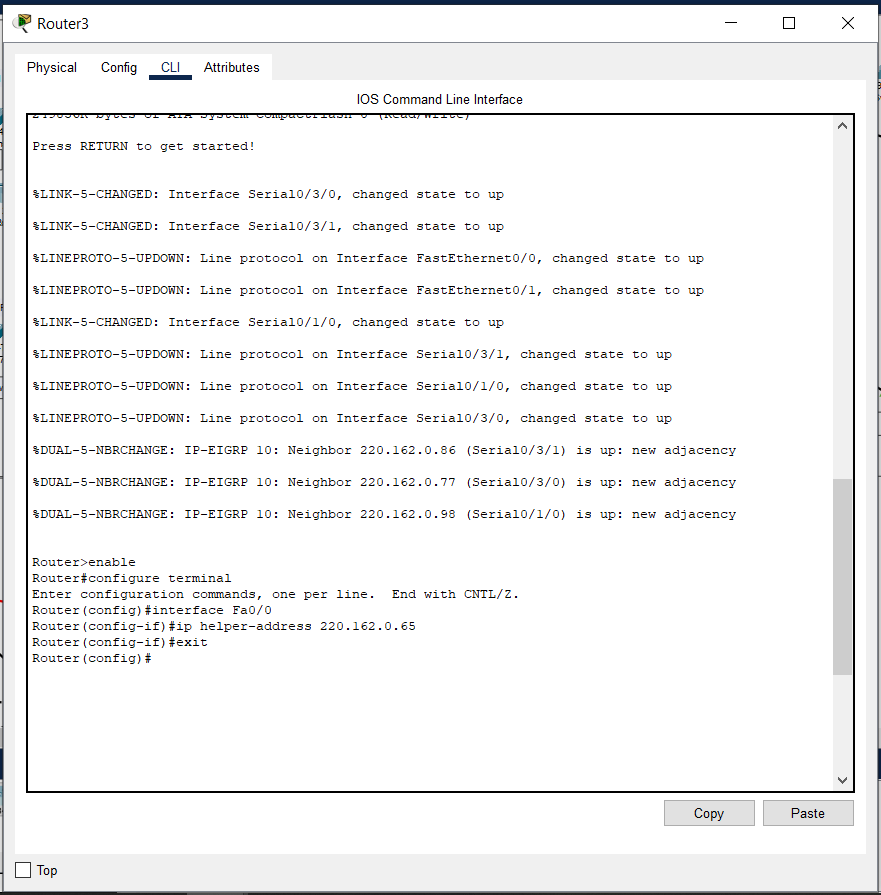


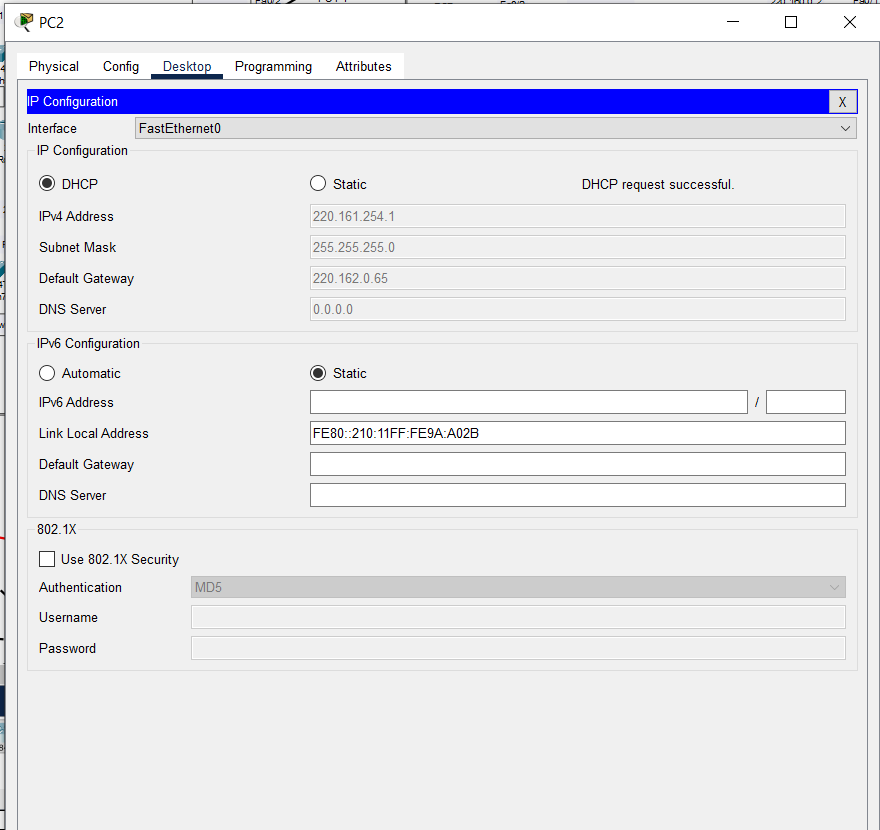
**Network B: -**



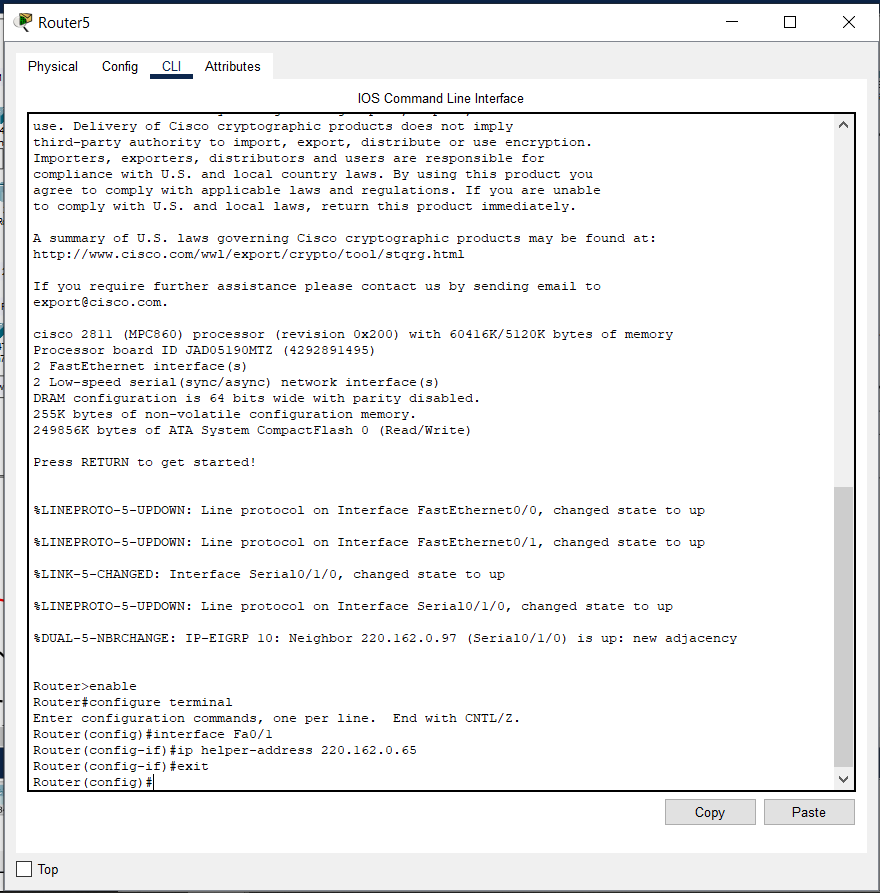


**Network N: -**

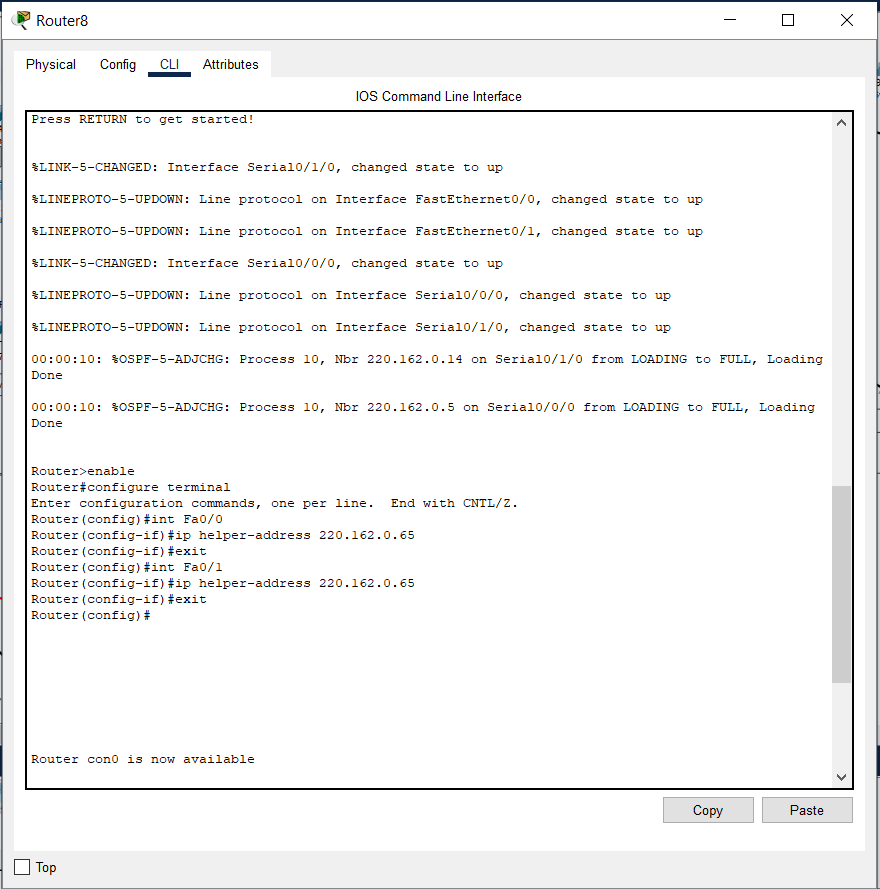


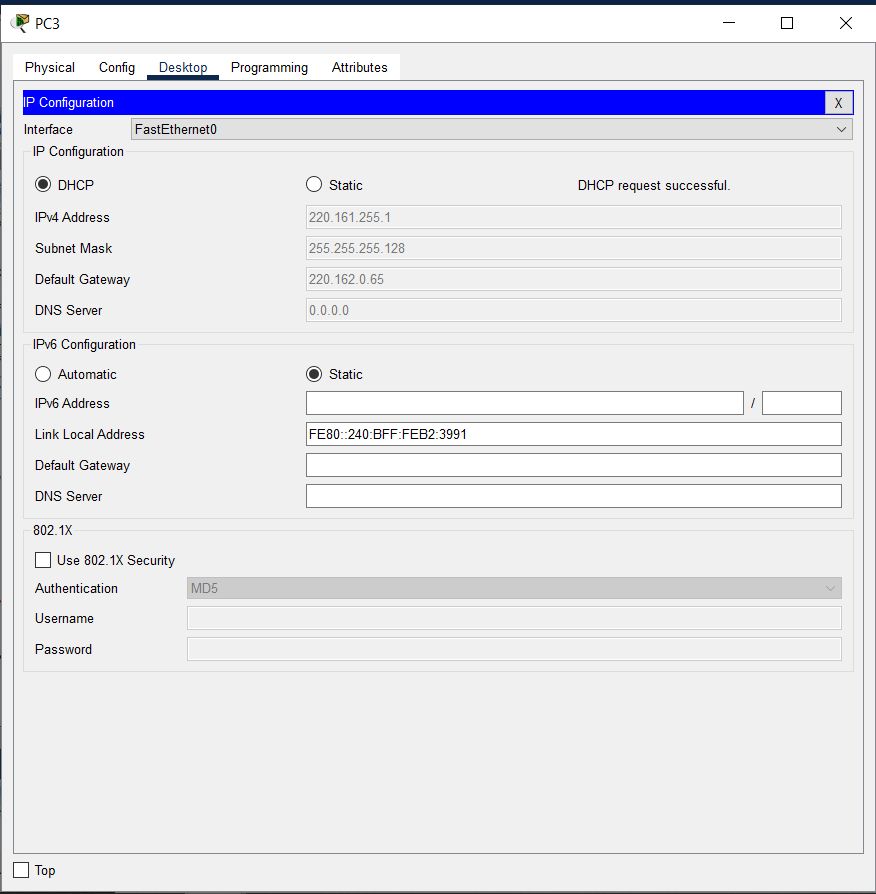


**Network C: -**

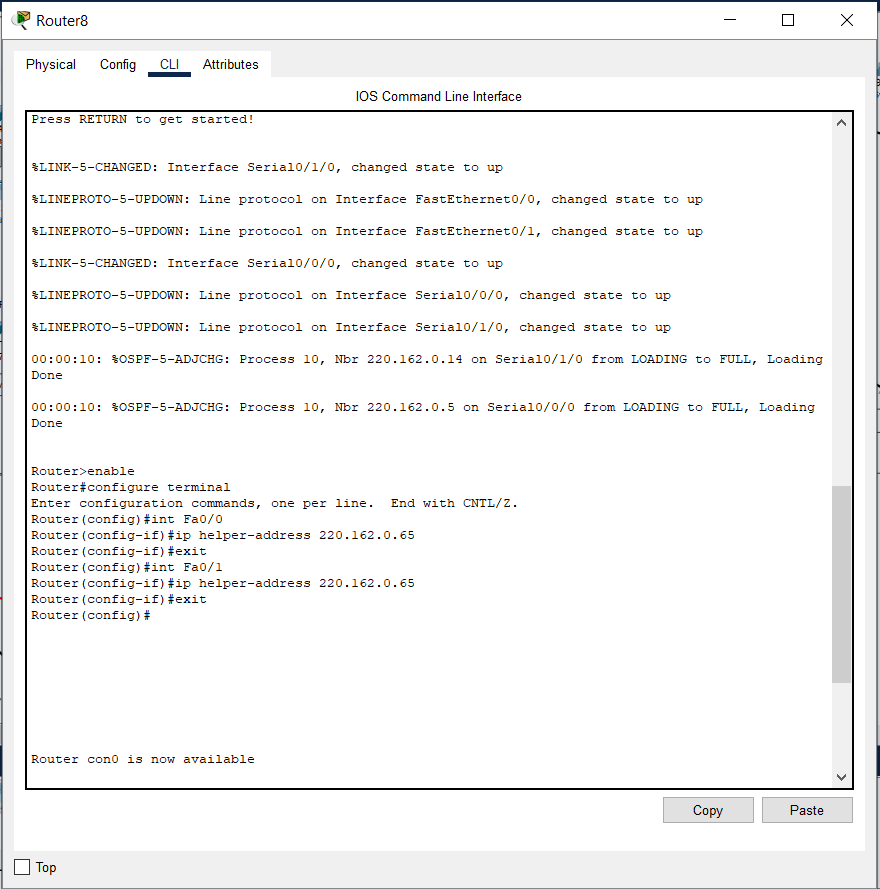


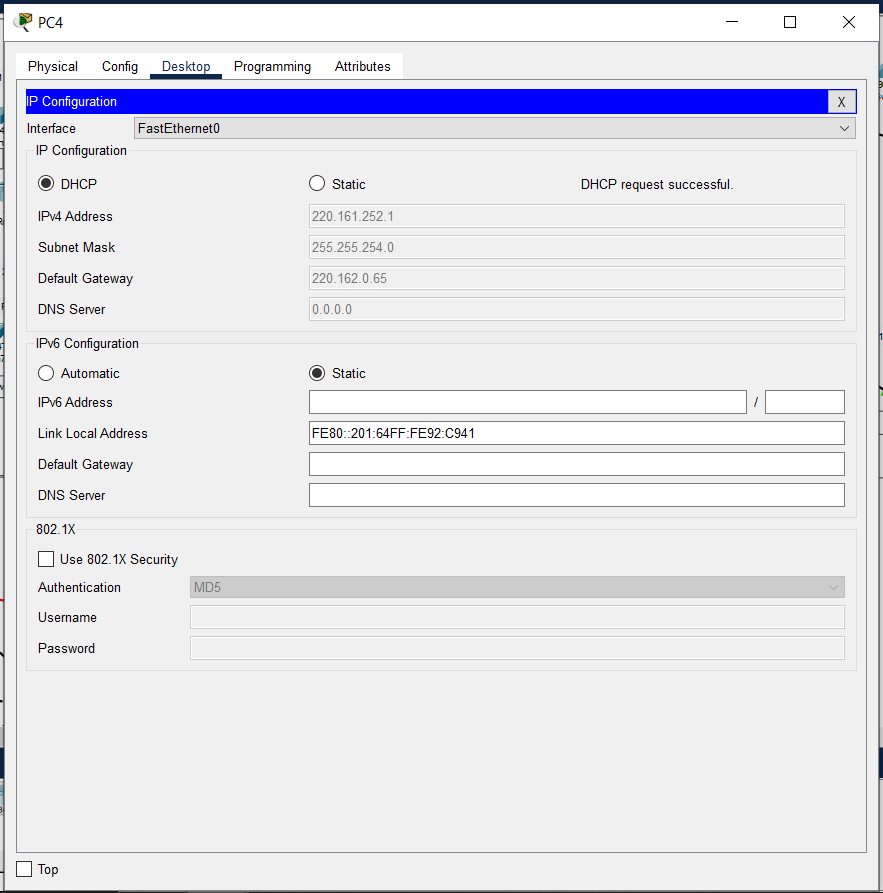
**Network L: -**



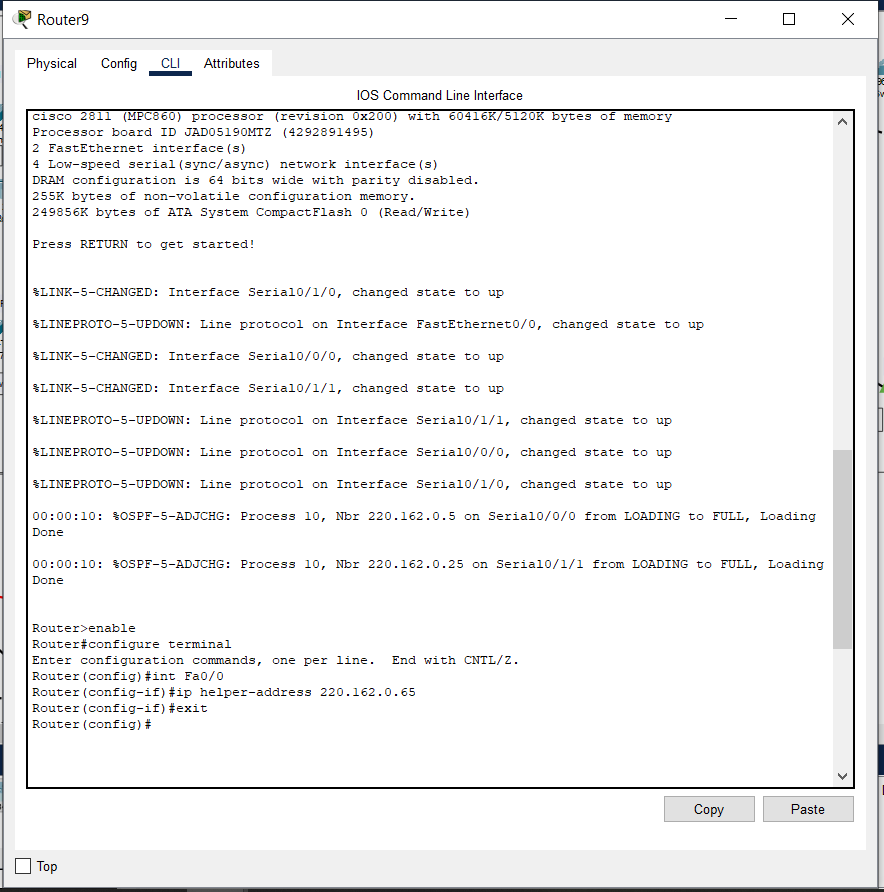


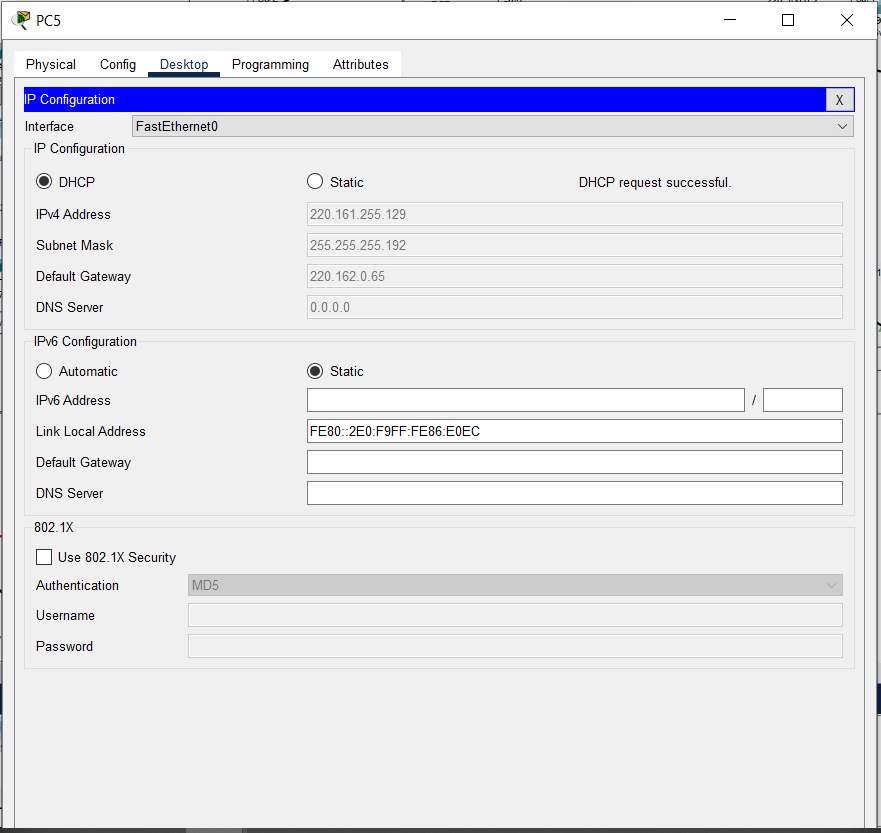
**Network D: -**



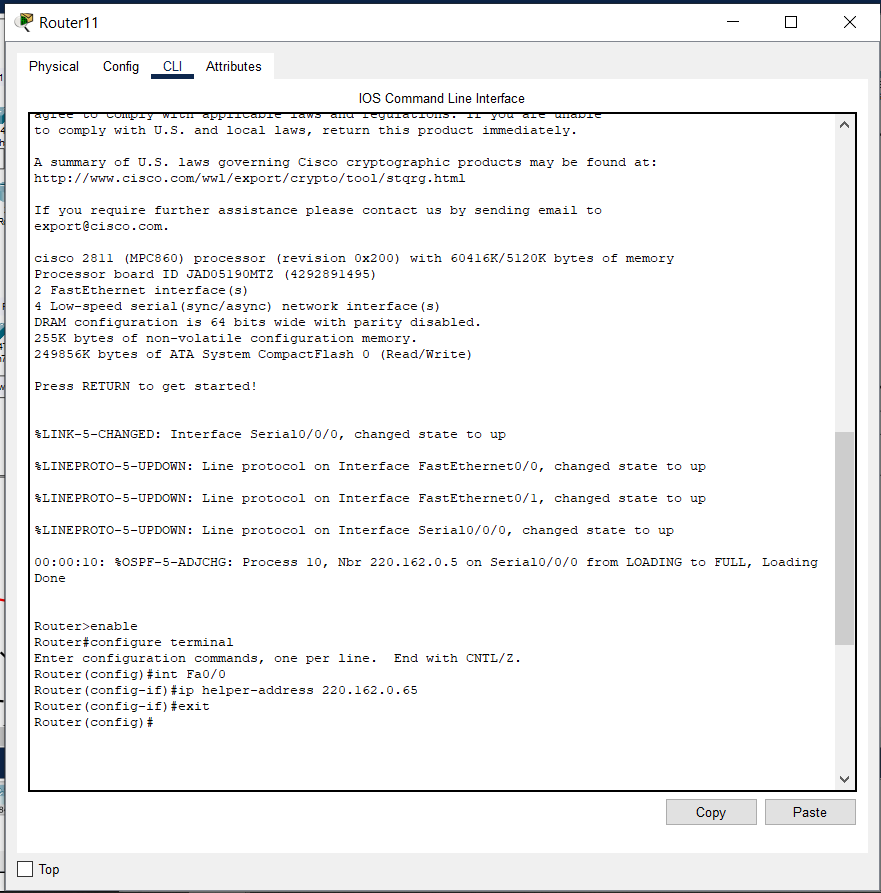


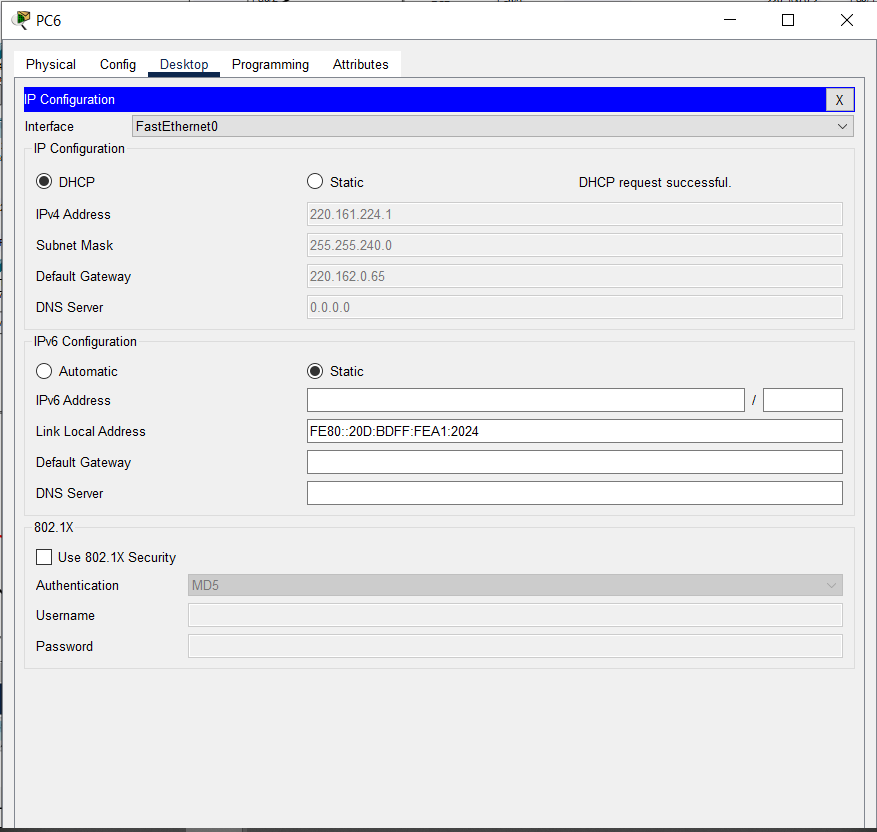
**Network M: -**



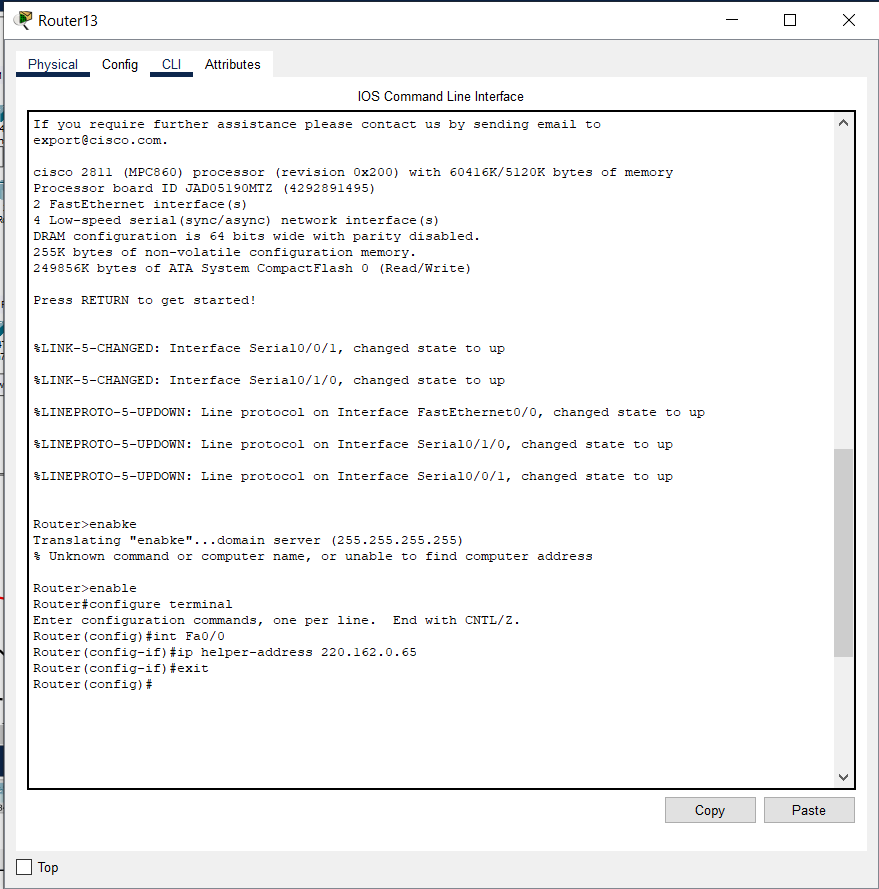


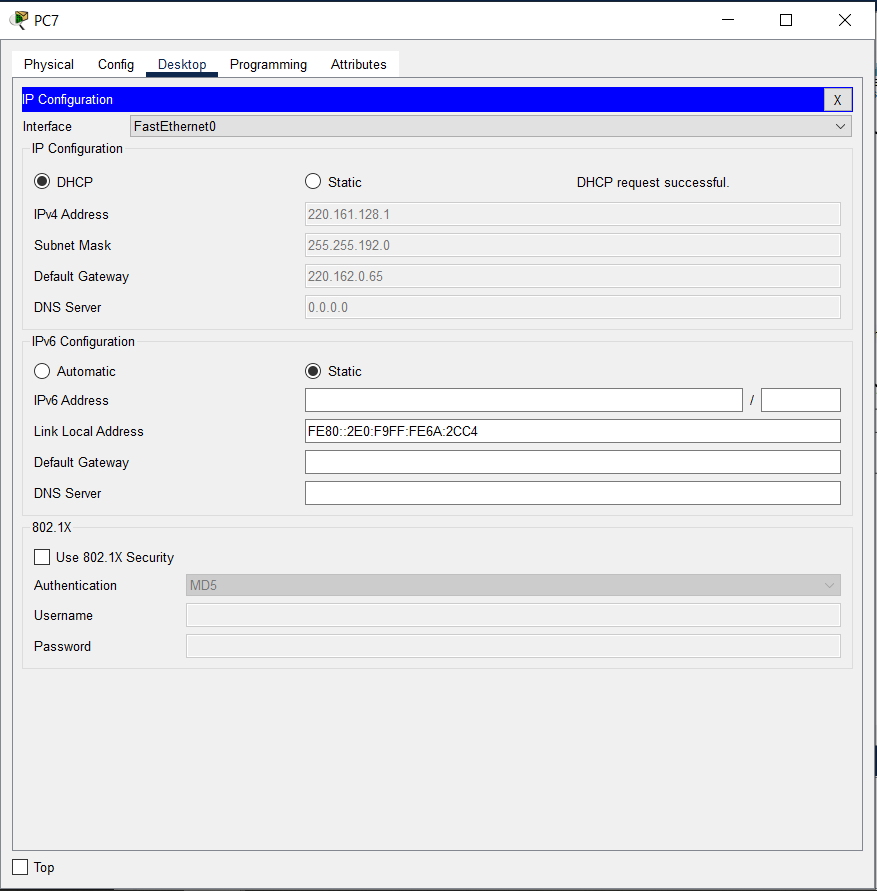
**Network E: -**



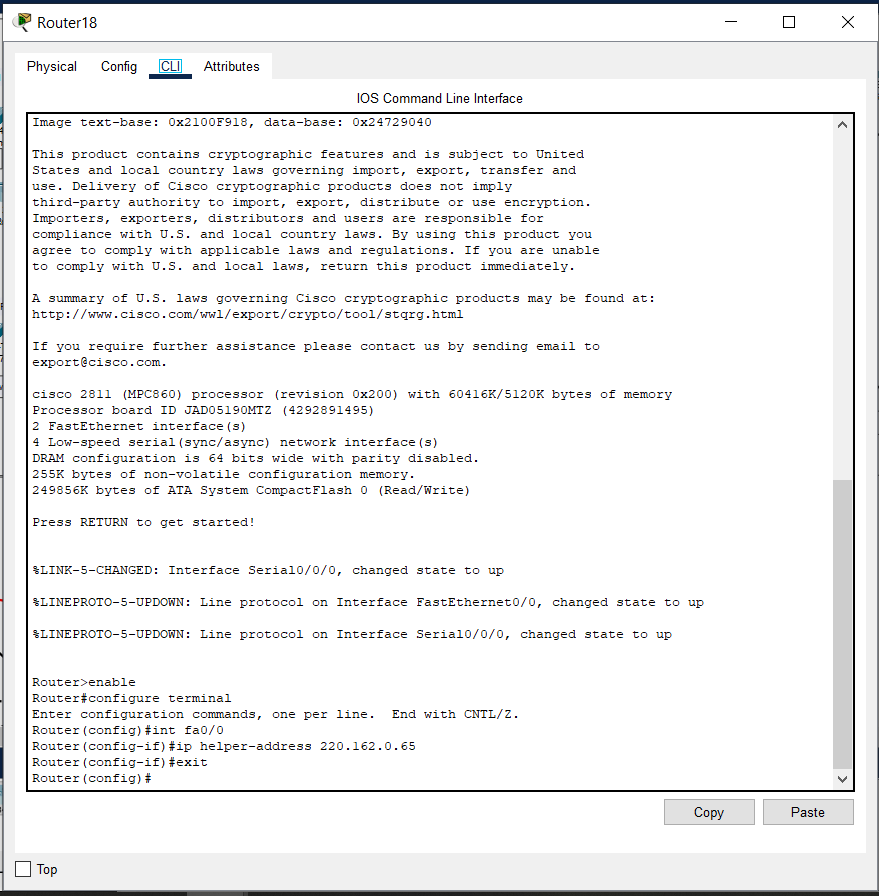


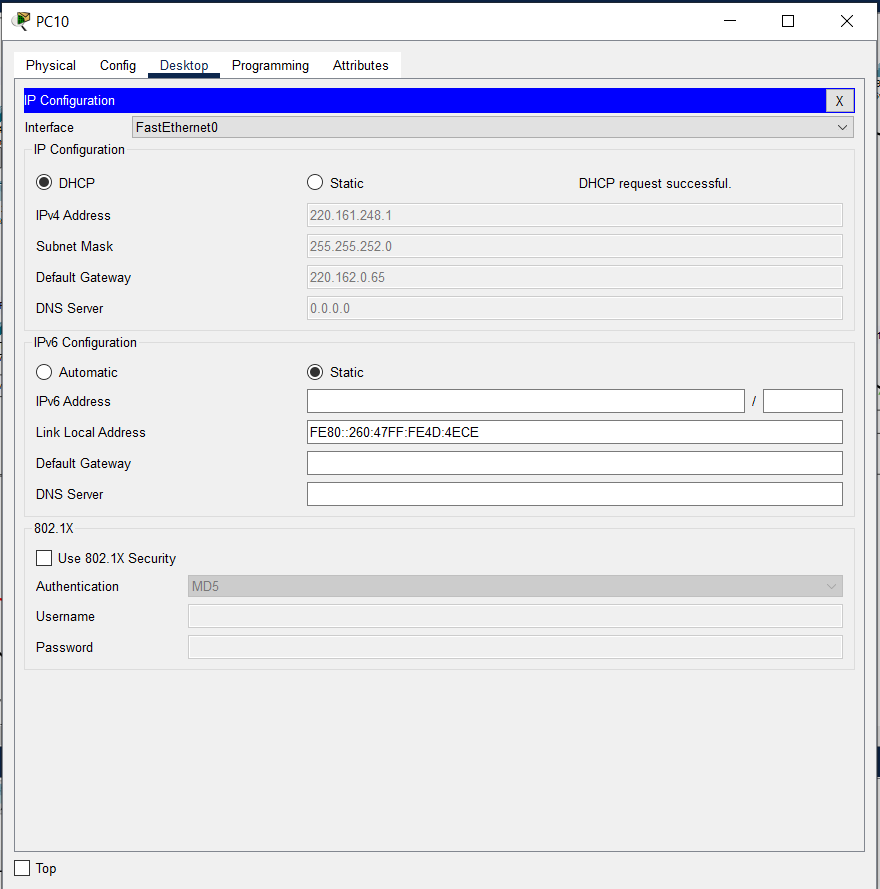
**Network F: -**



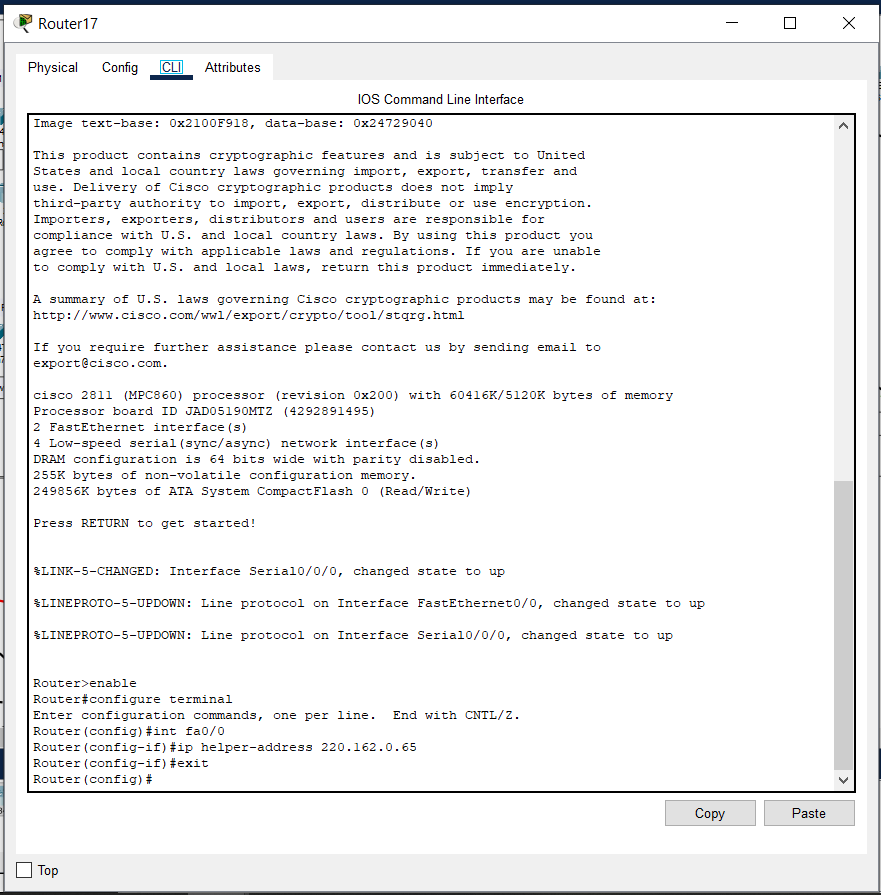


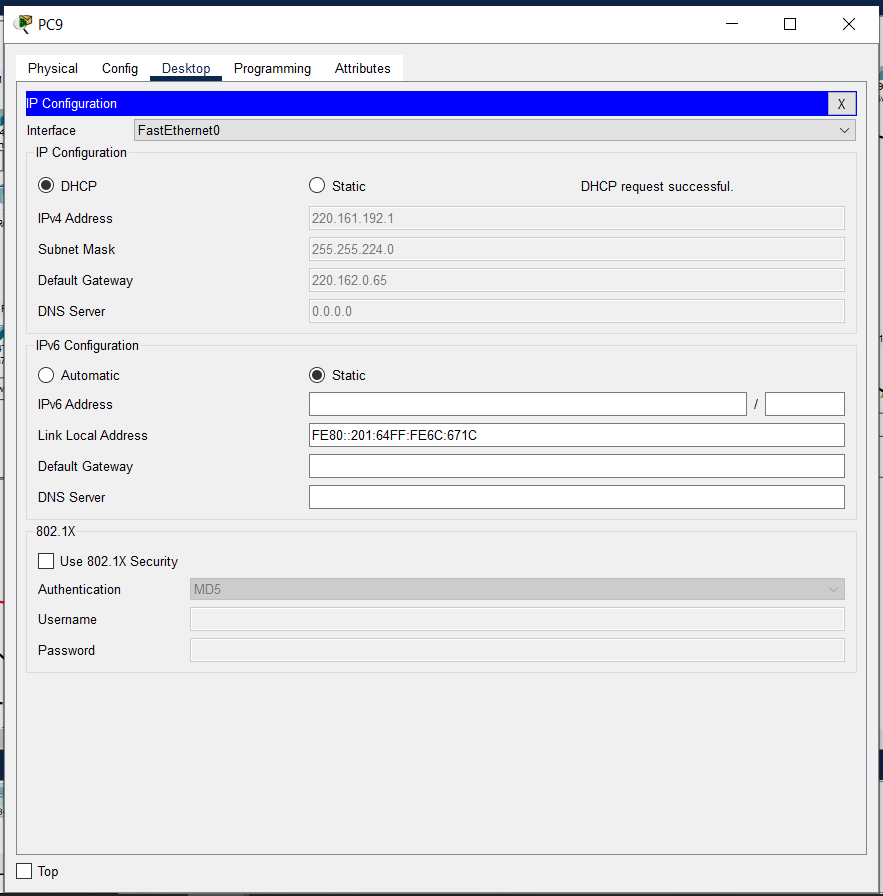
**Network I: -**



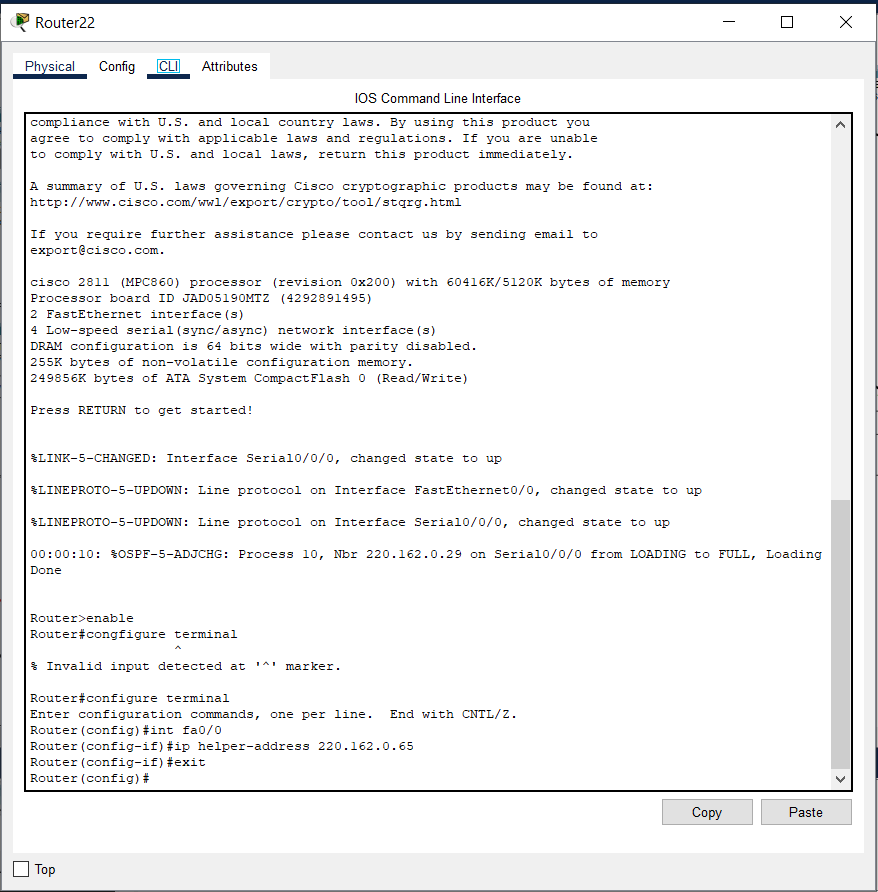


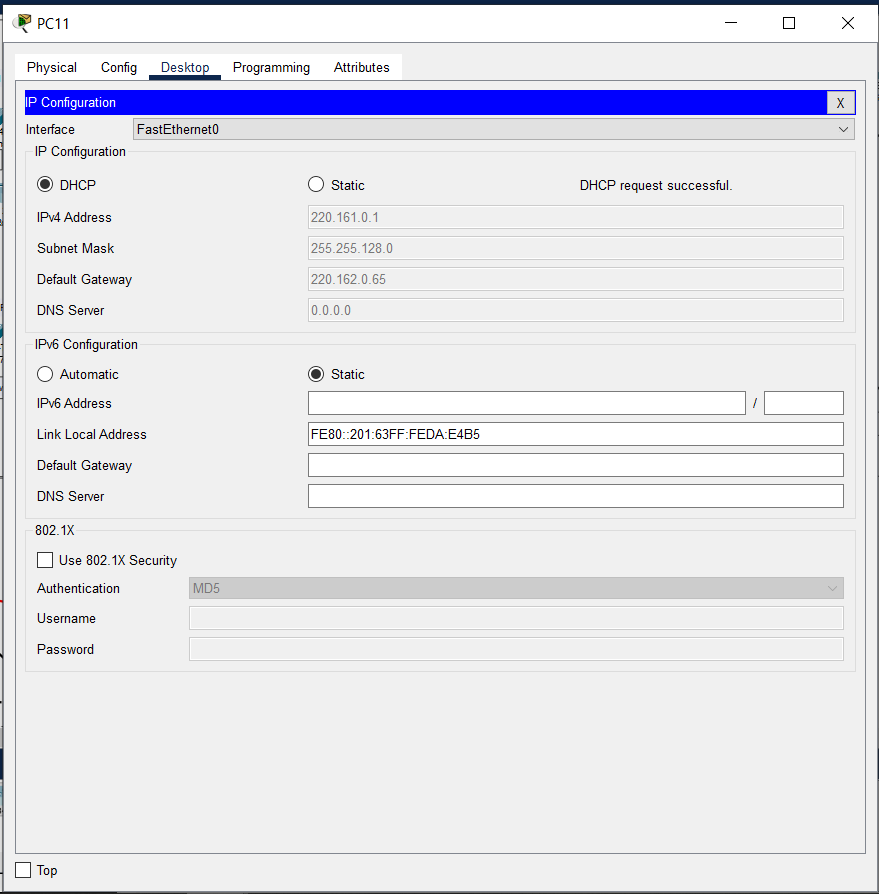
**Network H: -**



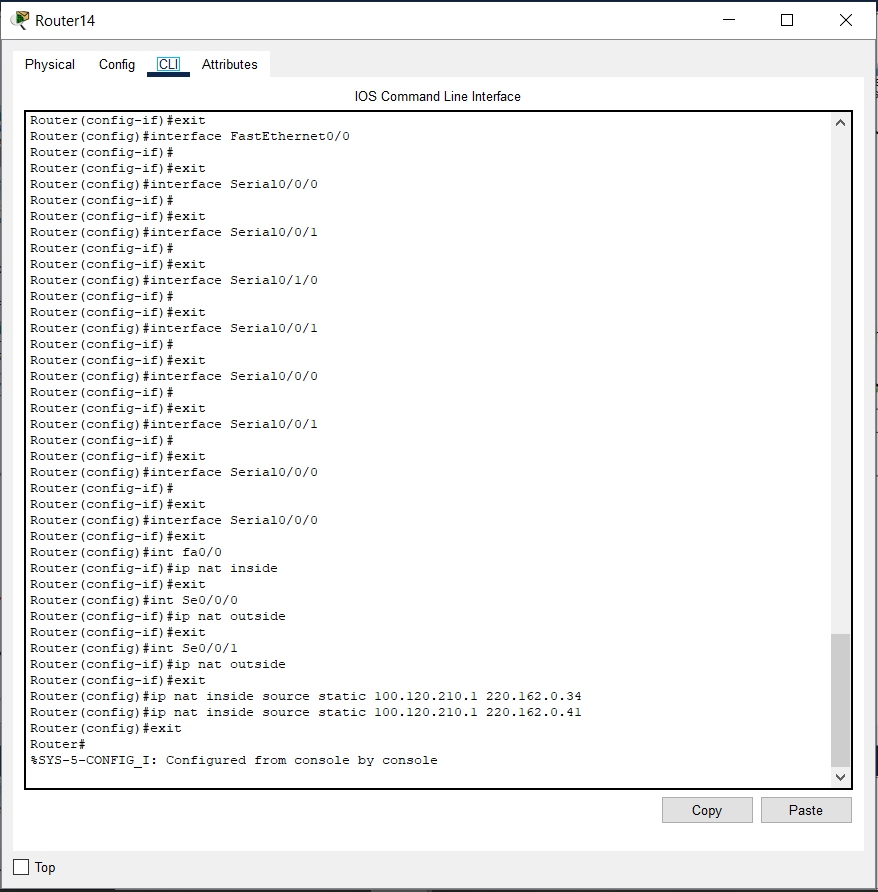


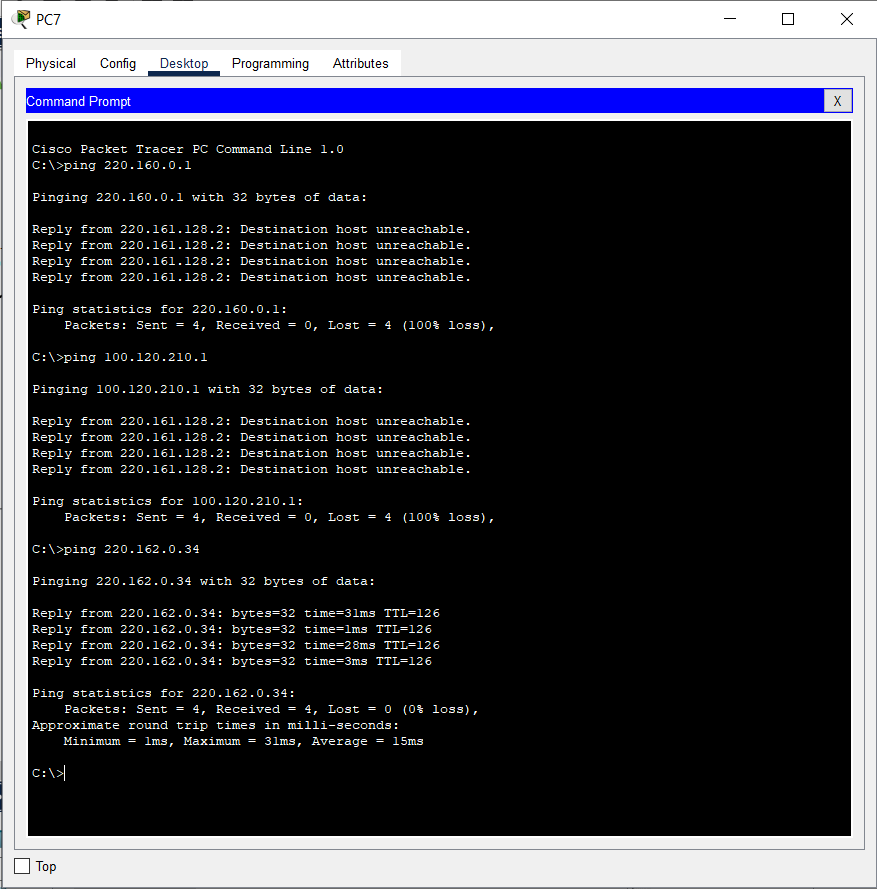
**Network J: -**

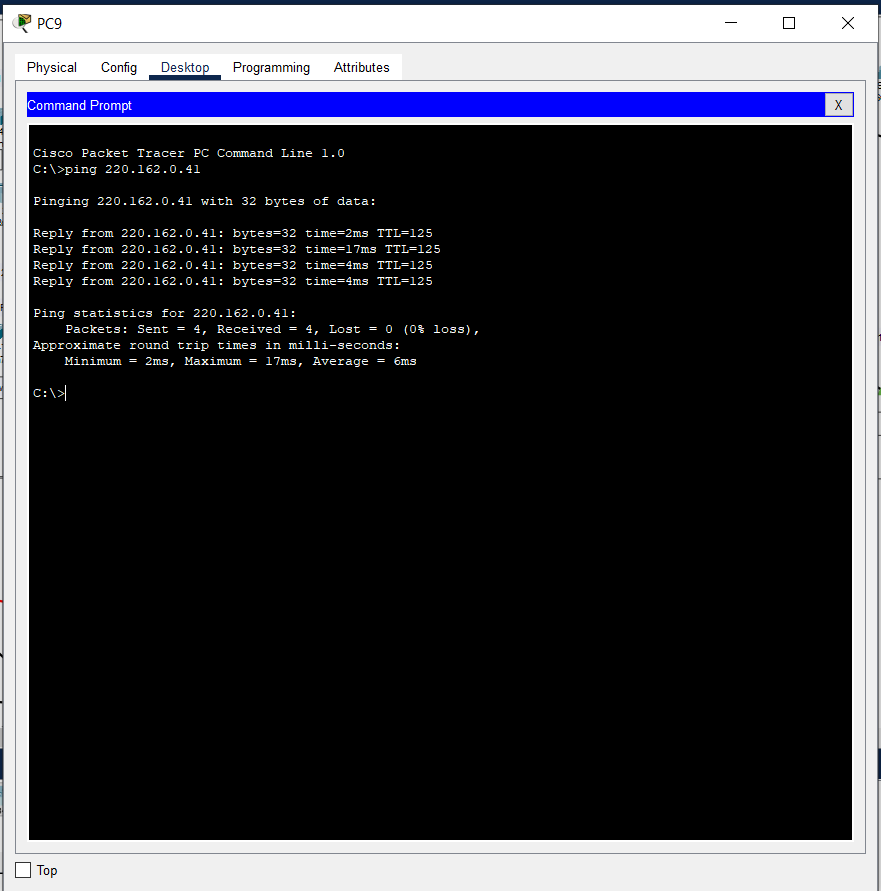




***NAT (Network G)***

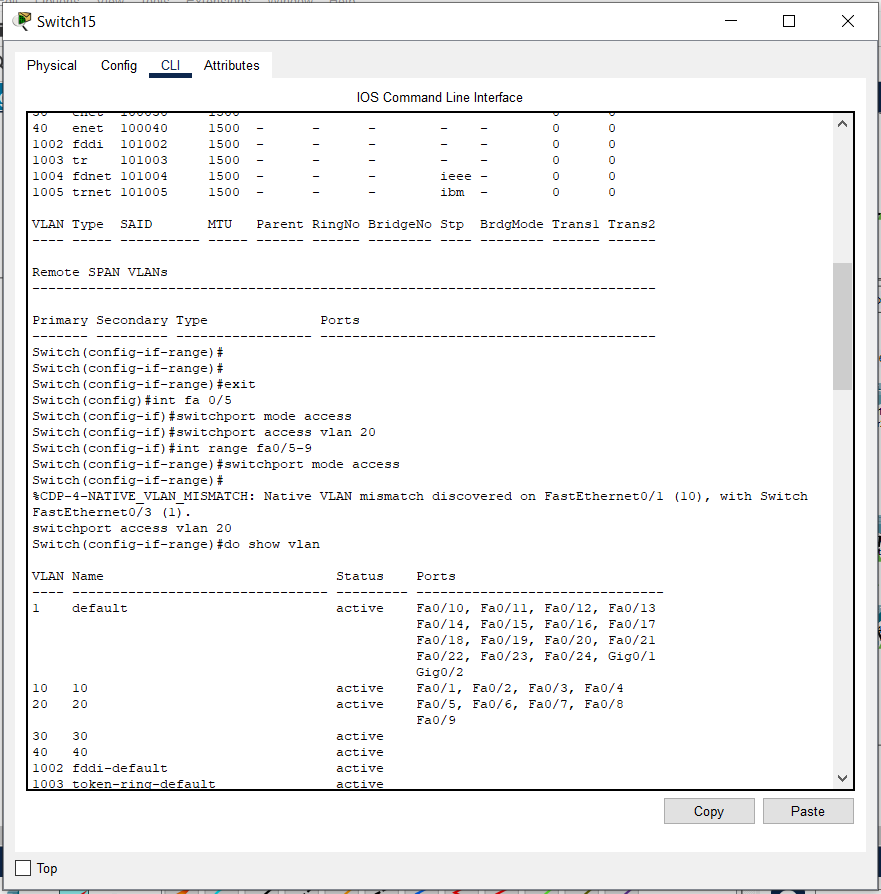






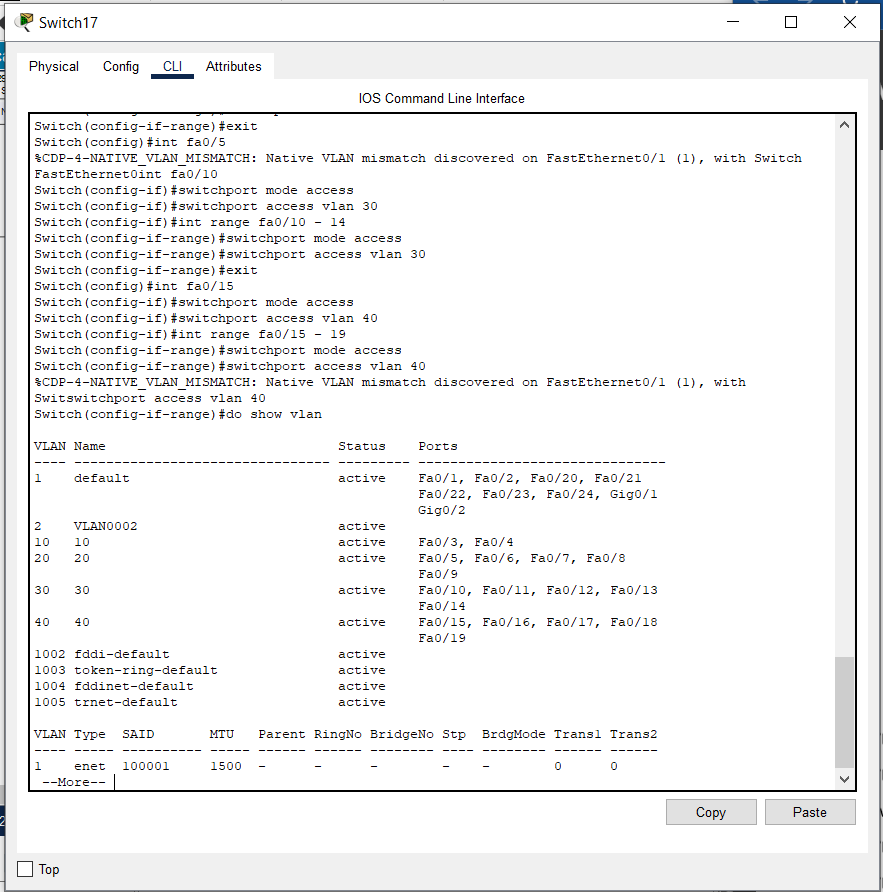
***VLAN***

**Switch 15:**

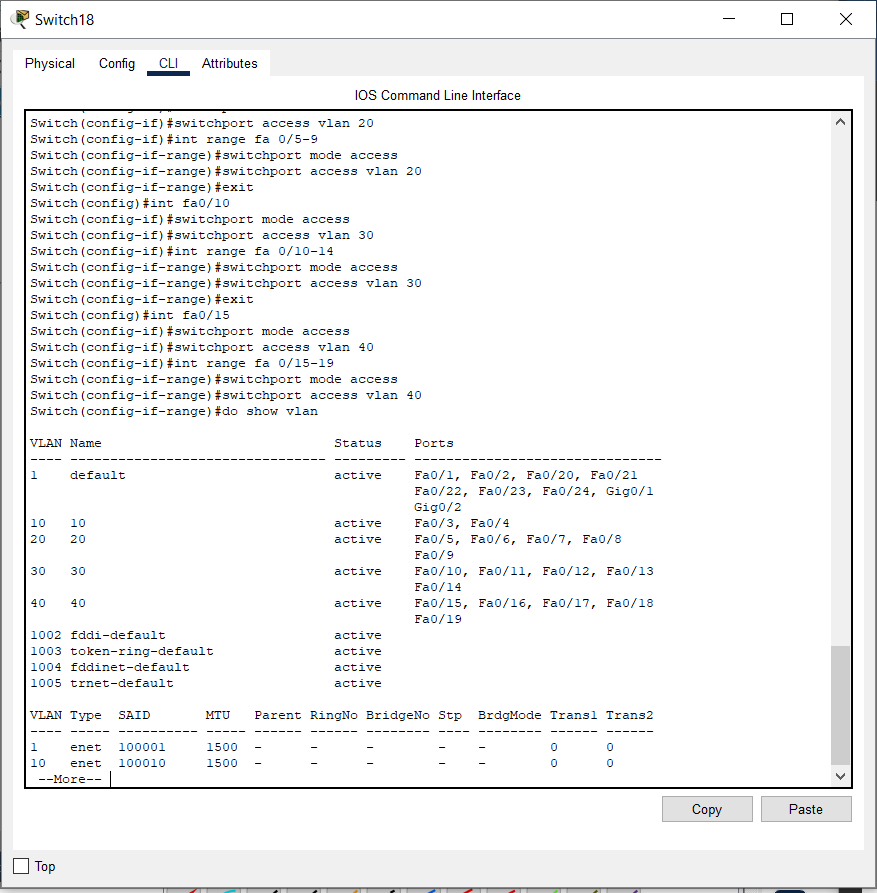




**Switch 17:**

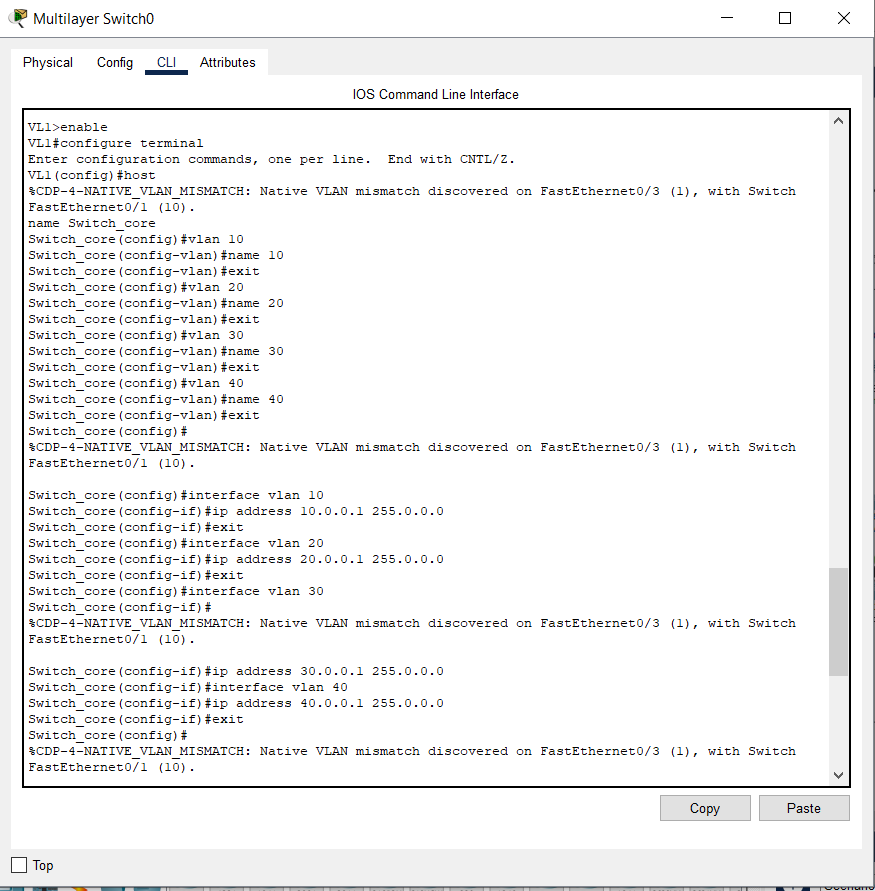


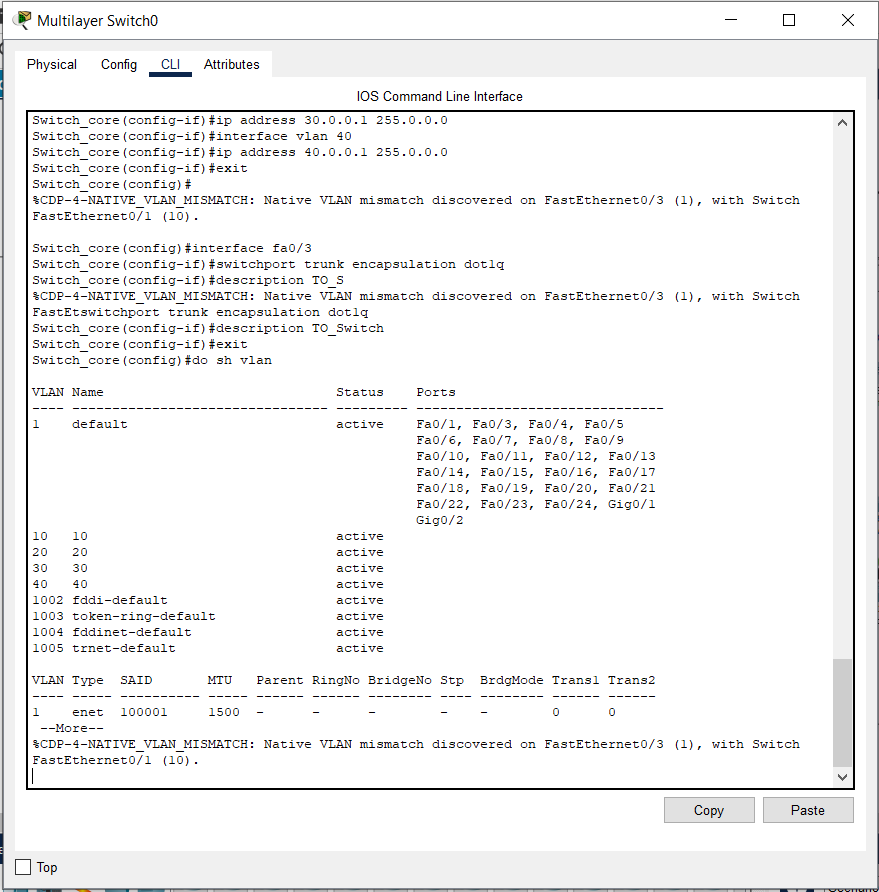
**Switch 18:**

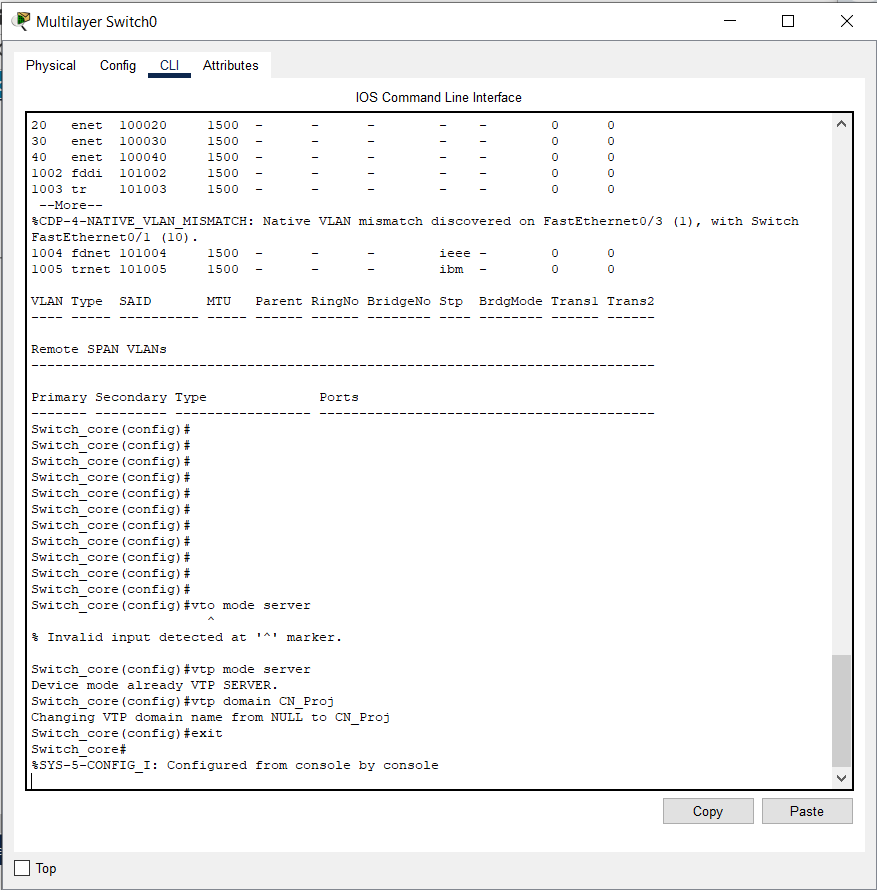


***VTP&Routing on Multi-level switch***

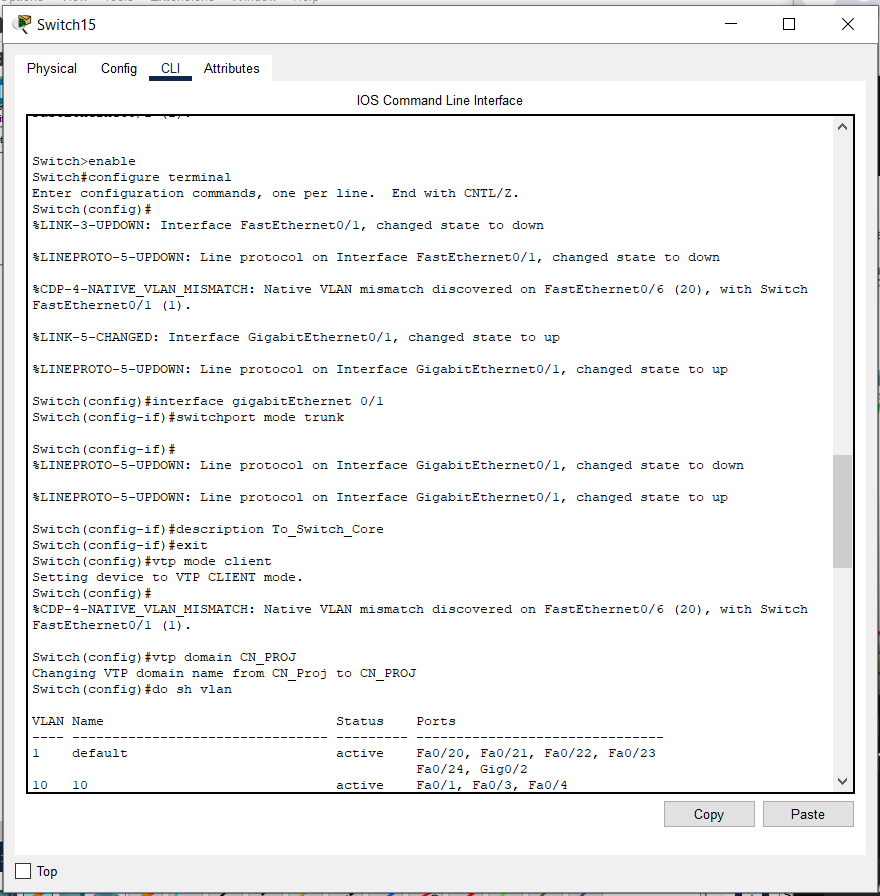
**Multilayer Switch 0:**



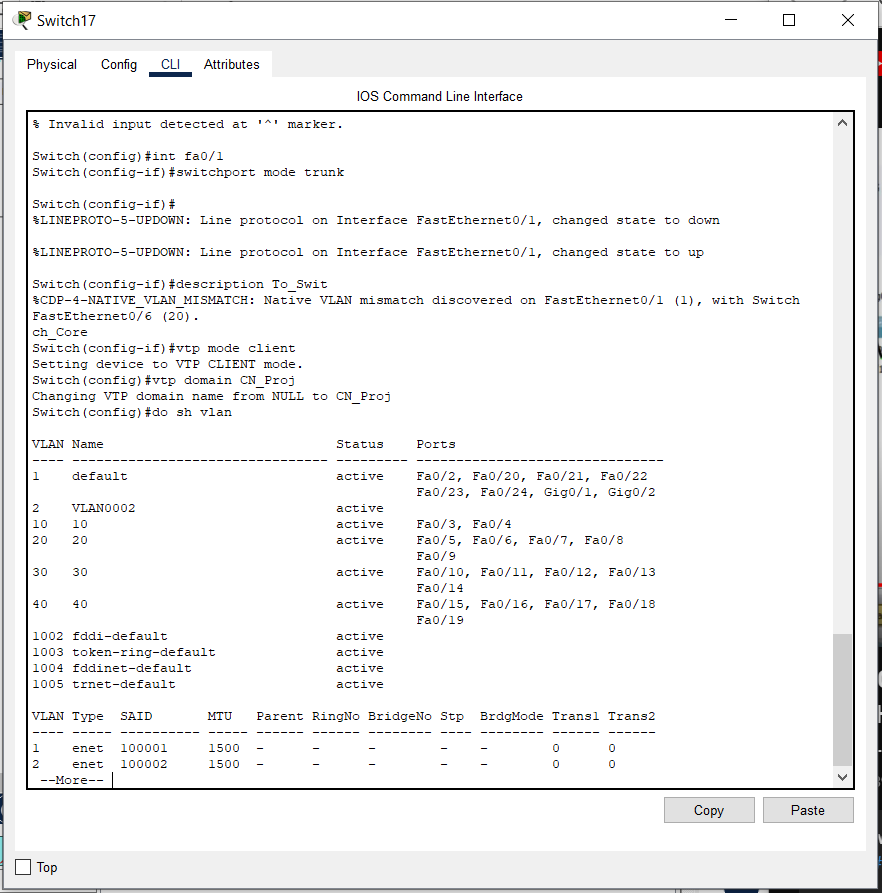




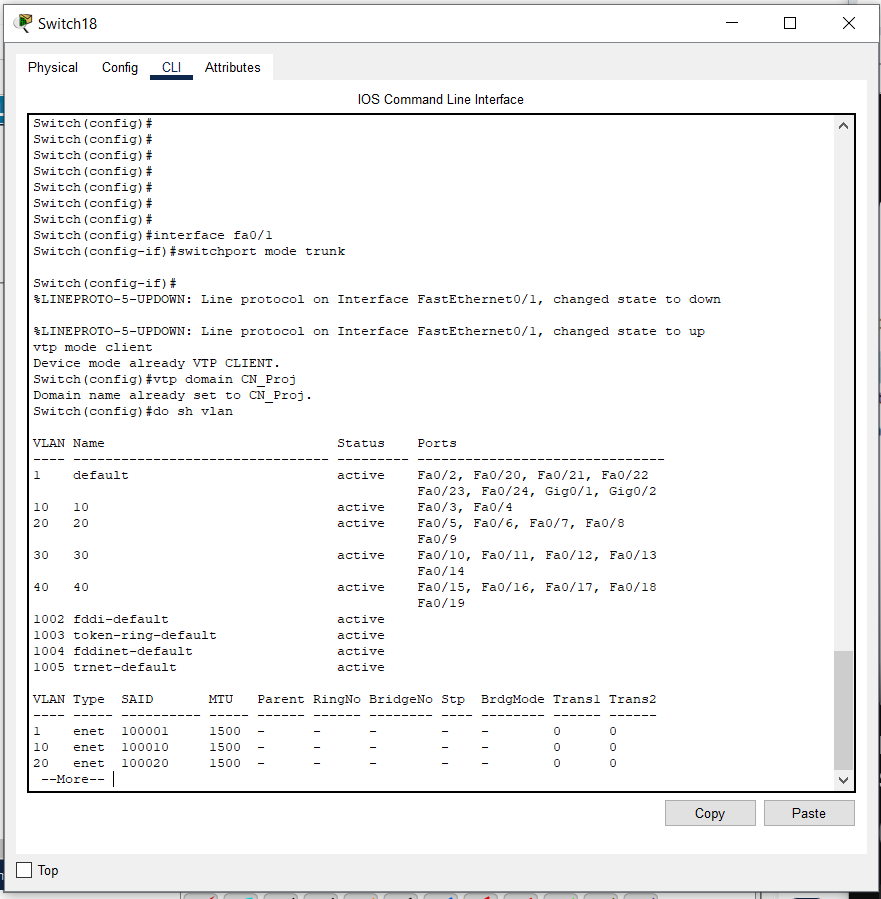
**Switch 15:**



**Switch 17:**

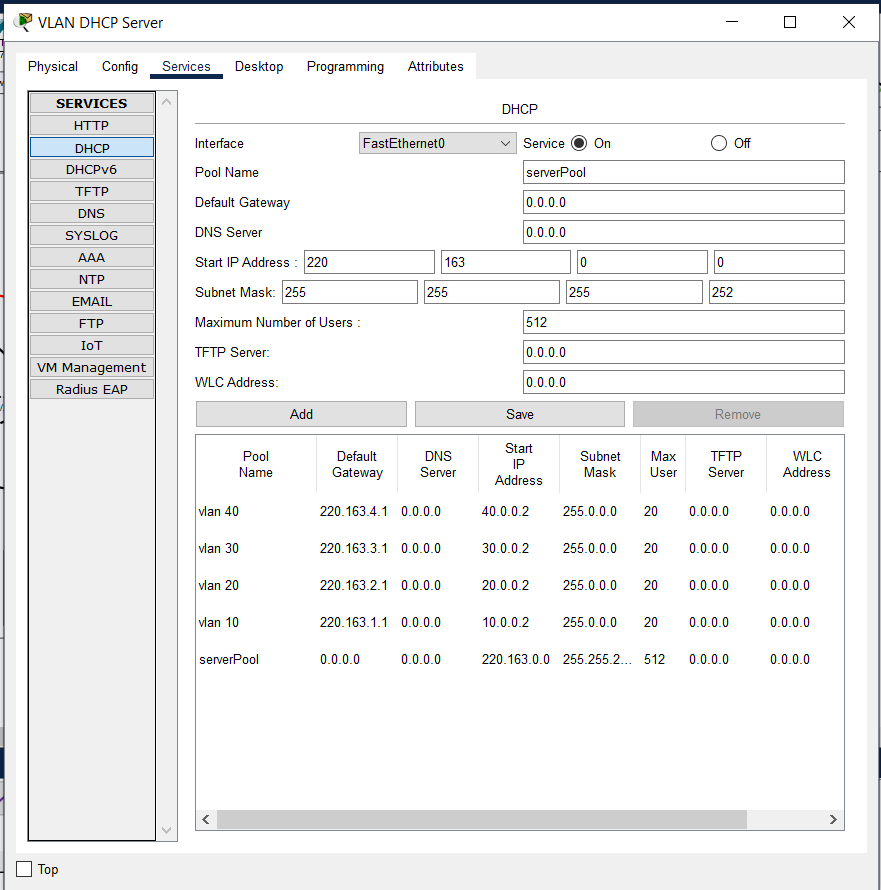


**Switch 18:**

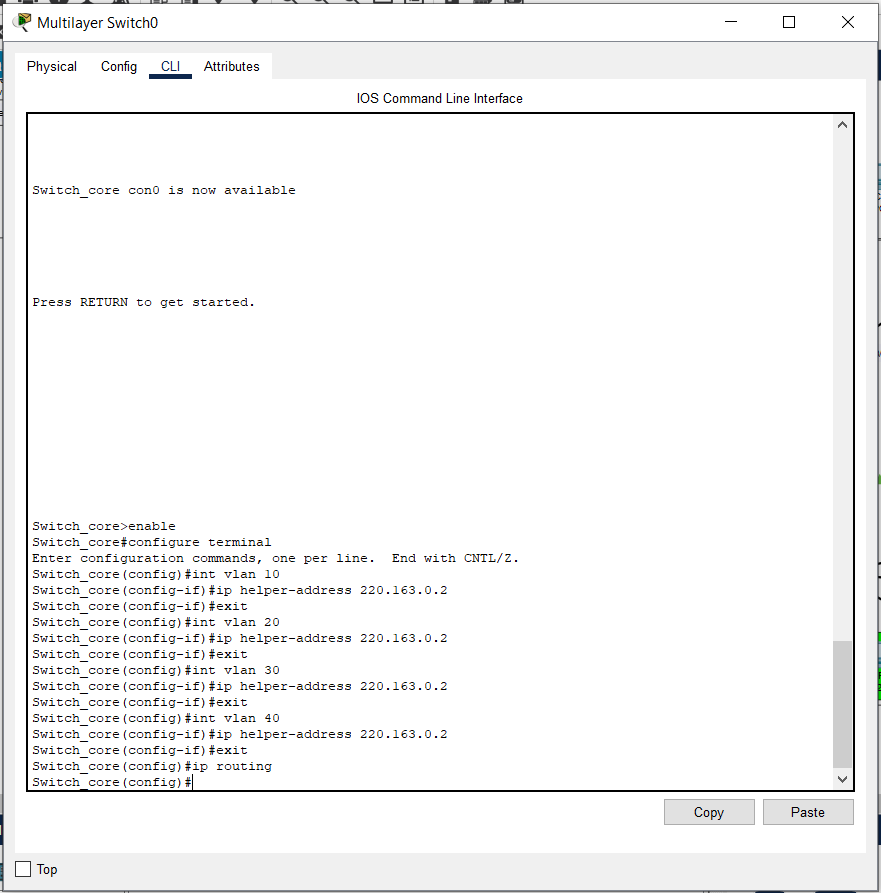


***DHCP Vlan***

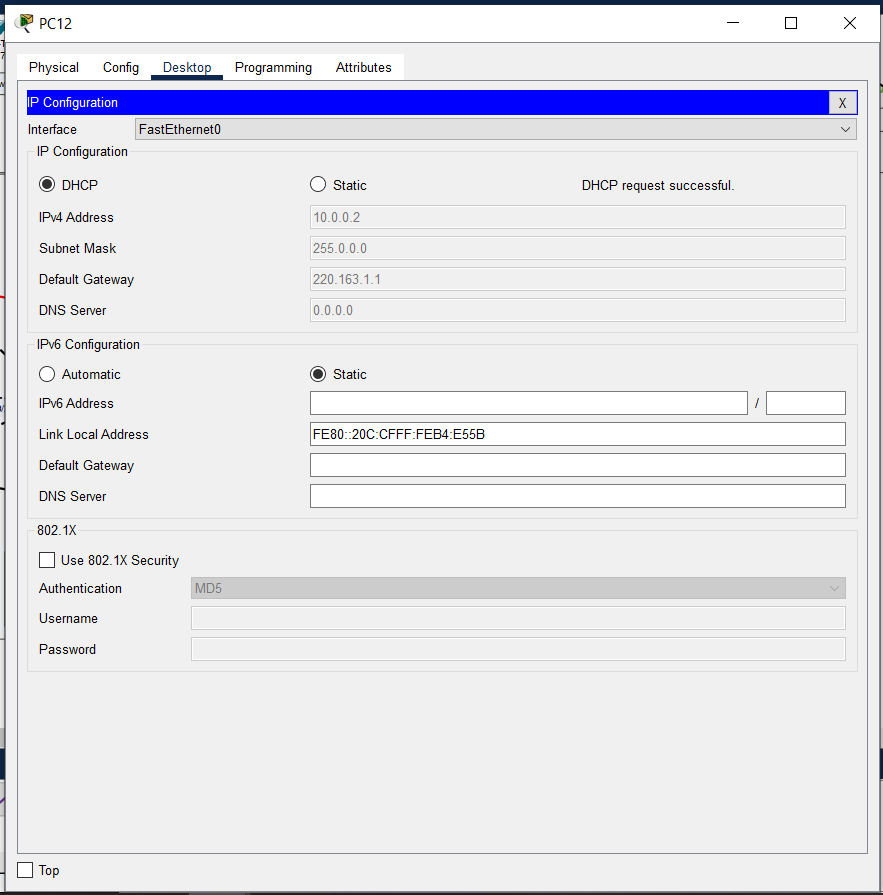
**VLAN DHCP Server:**

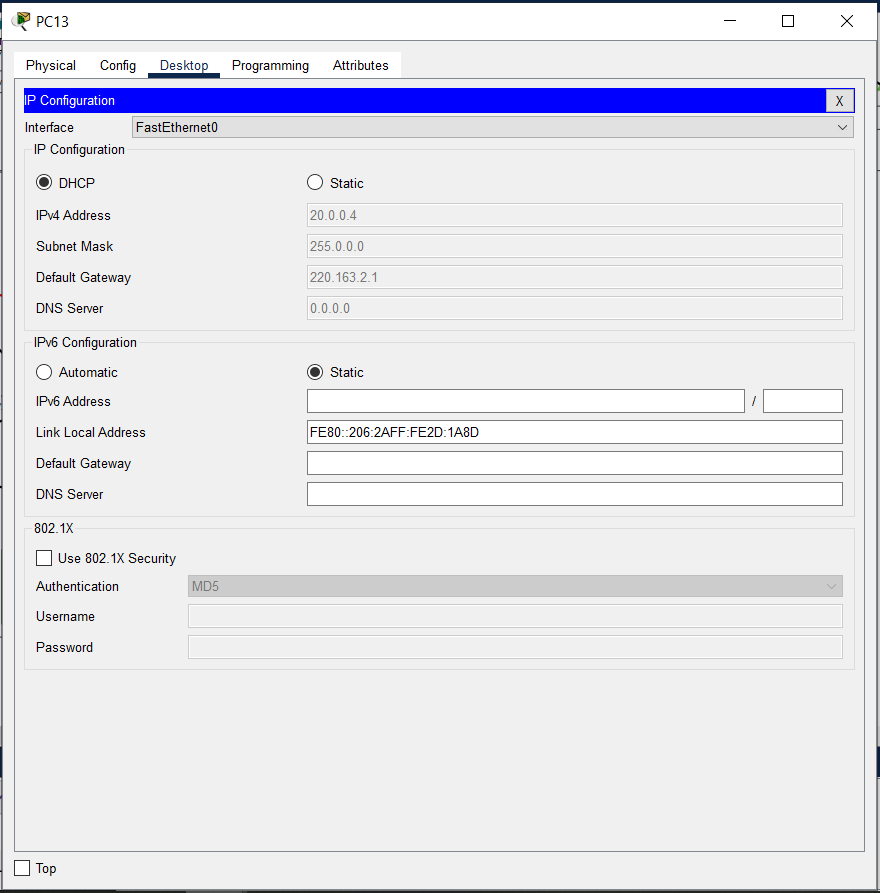


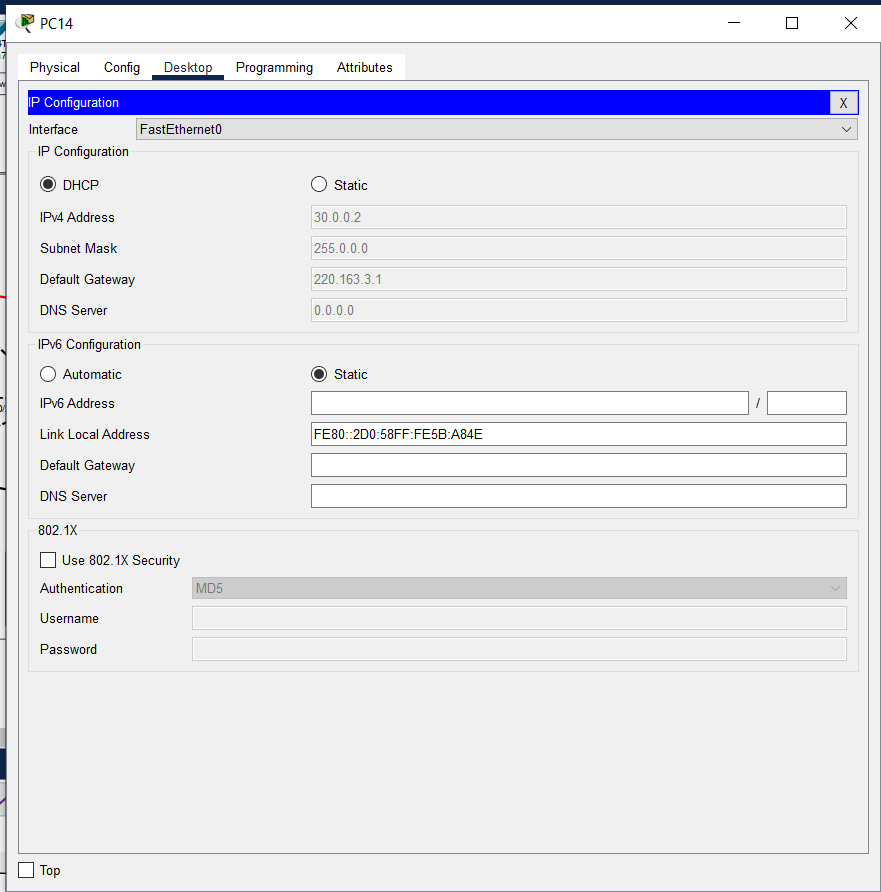
**Multilayer Switch 0:**

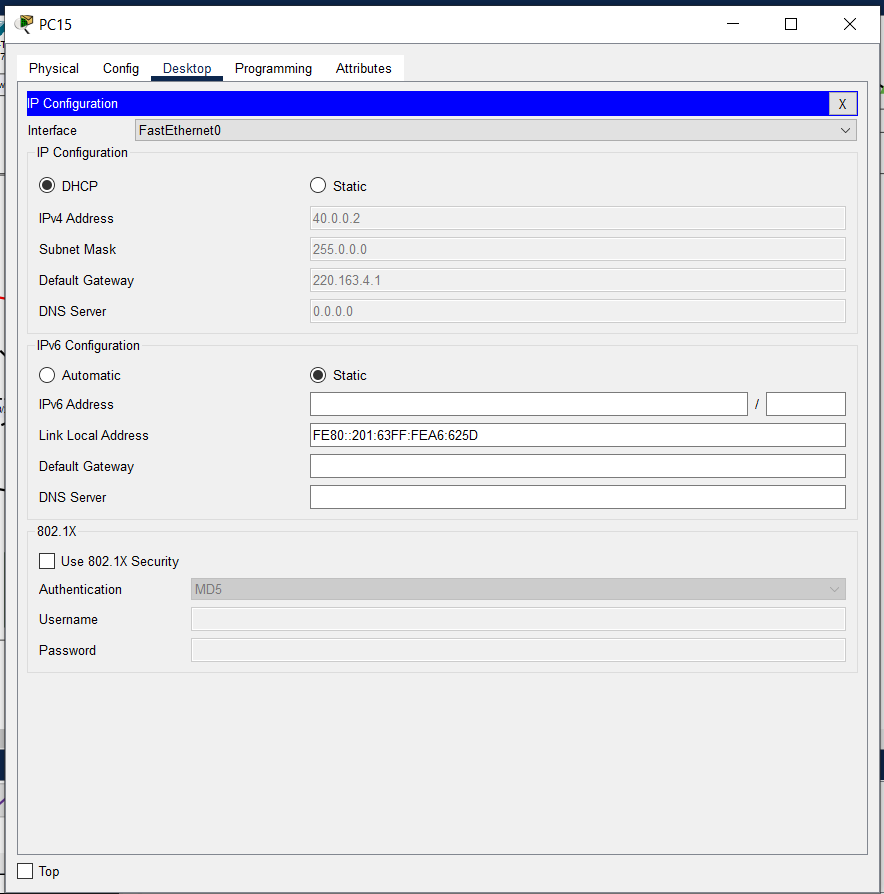


**PCs connected with Switch 15:**

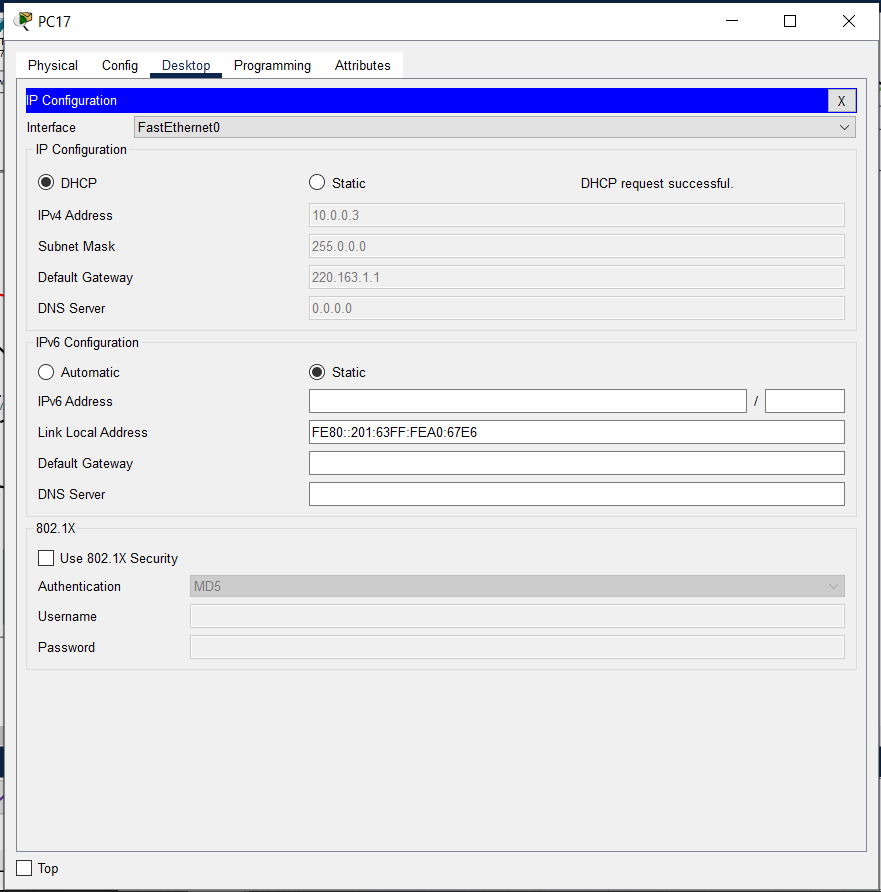


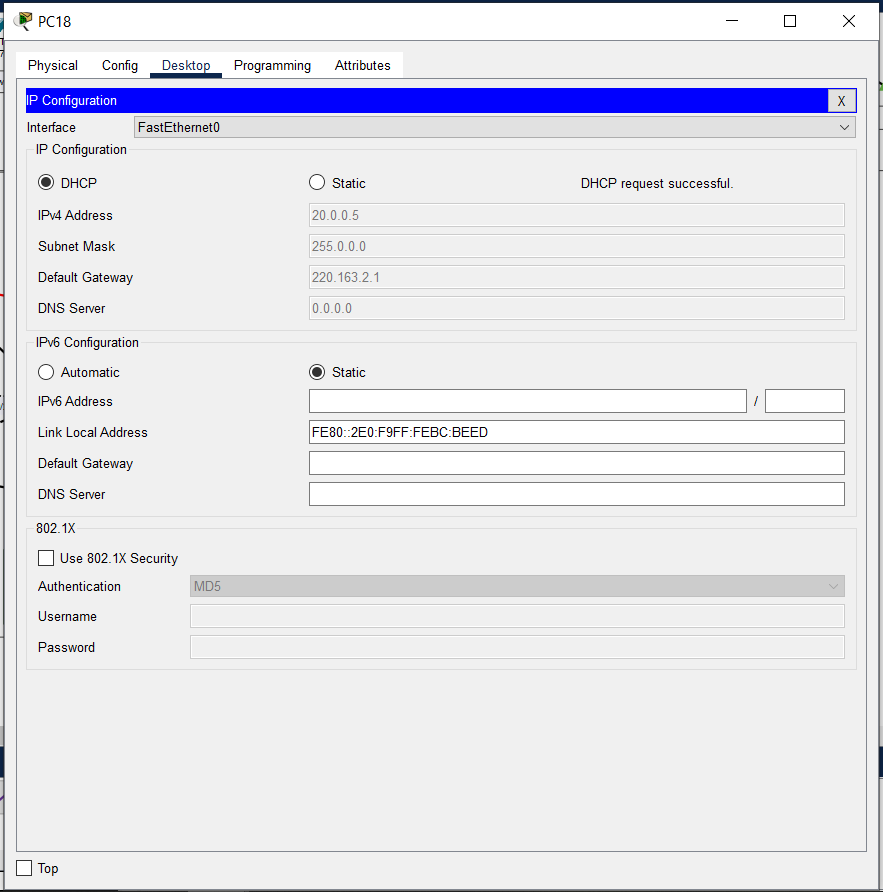


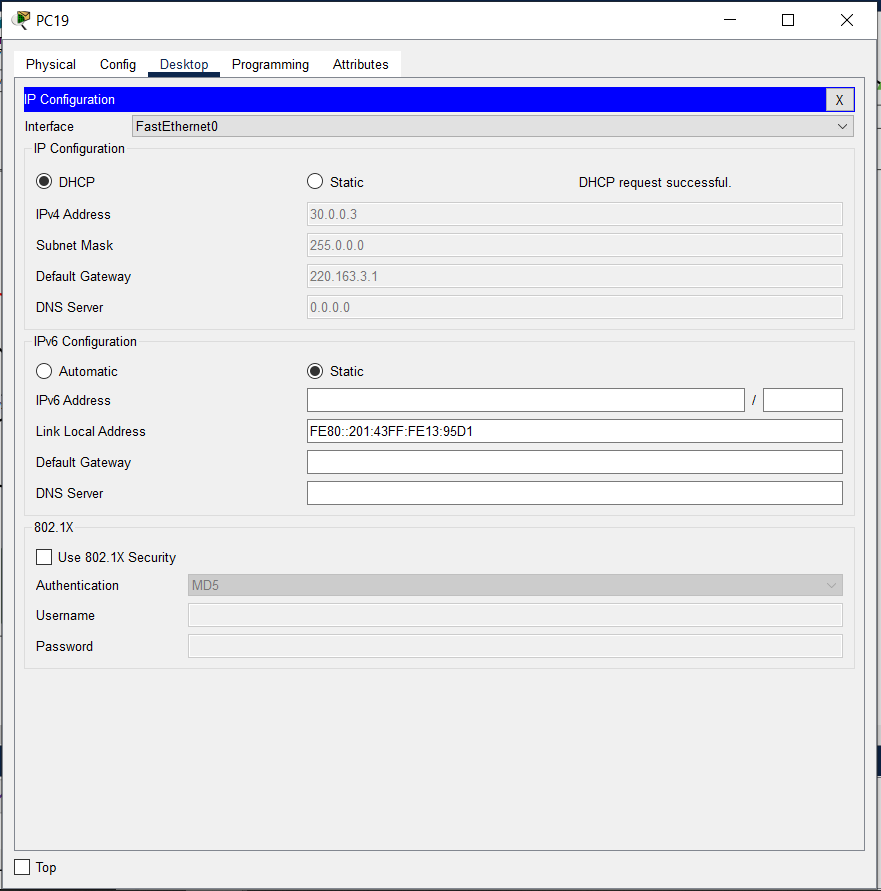


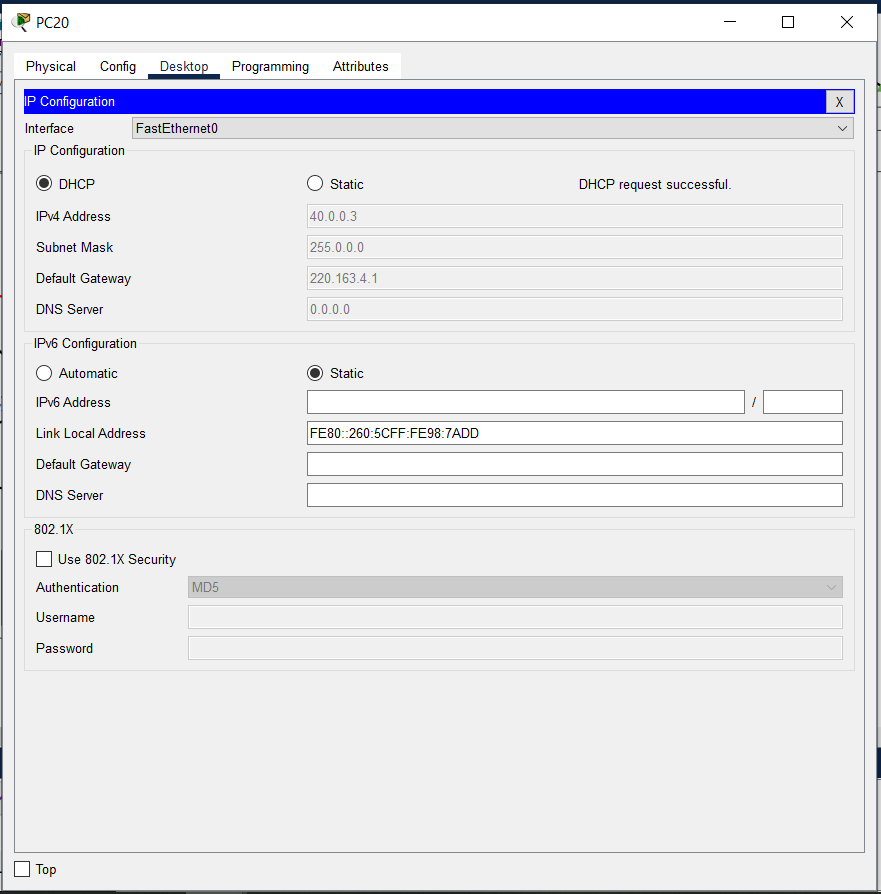


**PCs connected with Switch 17:**









**PCs connected with Switch 18:**

