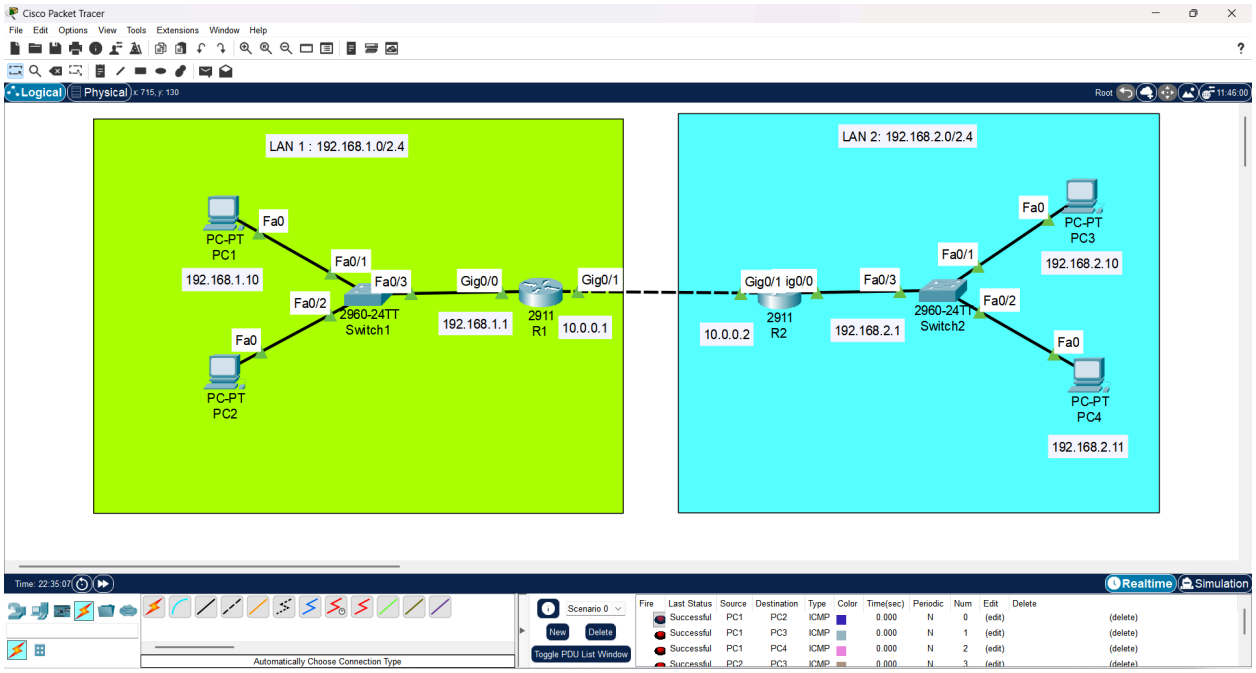
Lab 04 – Static Routing

Objective:
To connect two separate LANs using two routers to form static connection via a WAN link and verify inter-network communication.

Topology:
Two LANs connected via a two routers over a crossover cable



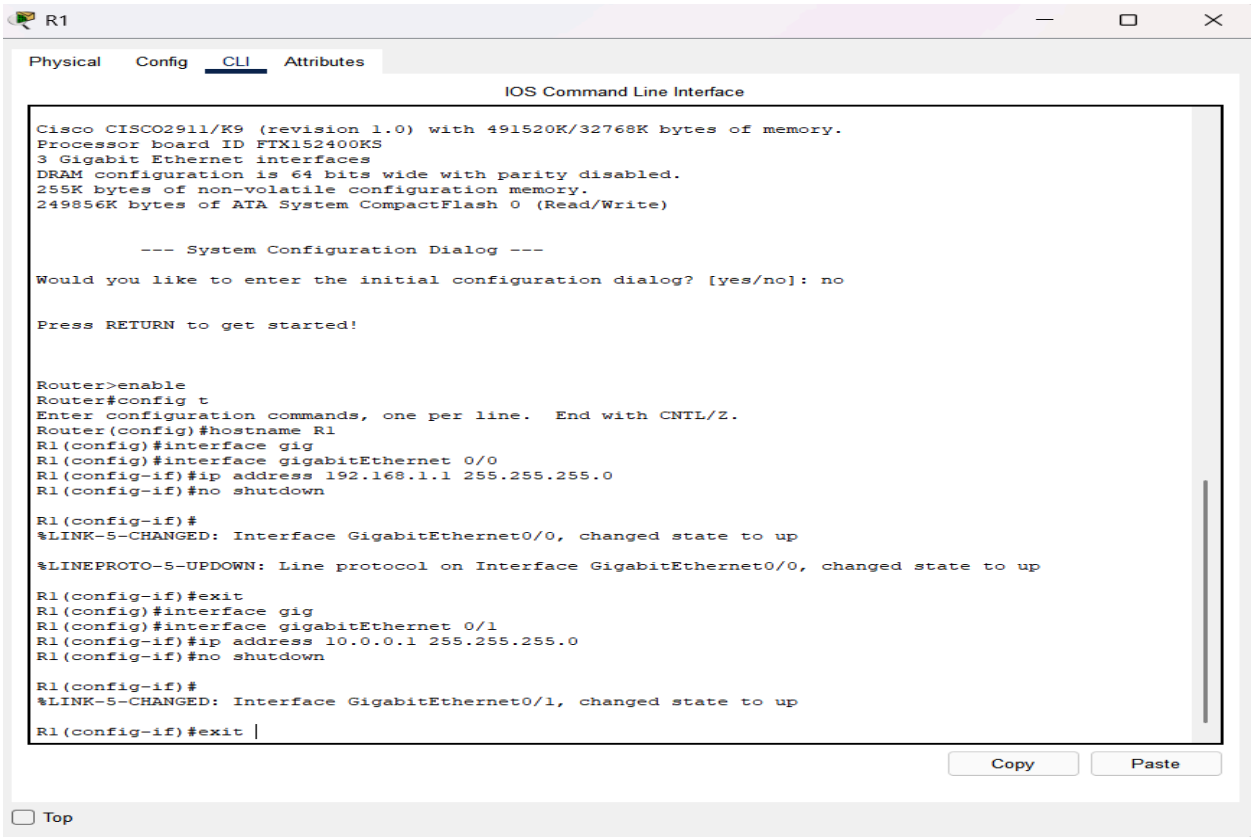
IP Addressing:

LAN 1:
PC1: 192.168.1.10 /24
PC2: 192.168.1.11 /24
Gateway: 192.168.1.1

LAN 2:
PC3: 192.168.2.10 /24
PC4: 192.168.2.11 /24
Gateway: 192.168.2.1

Router 1 Configuration:
- G0/0: 192.168.1.1
- G0/1: 10.0.0.1

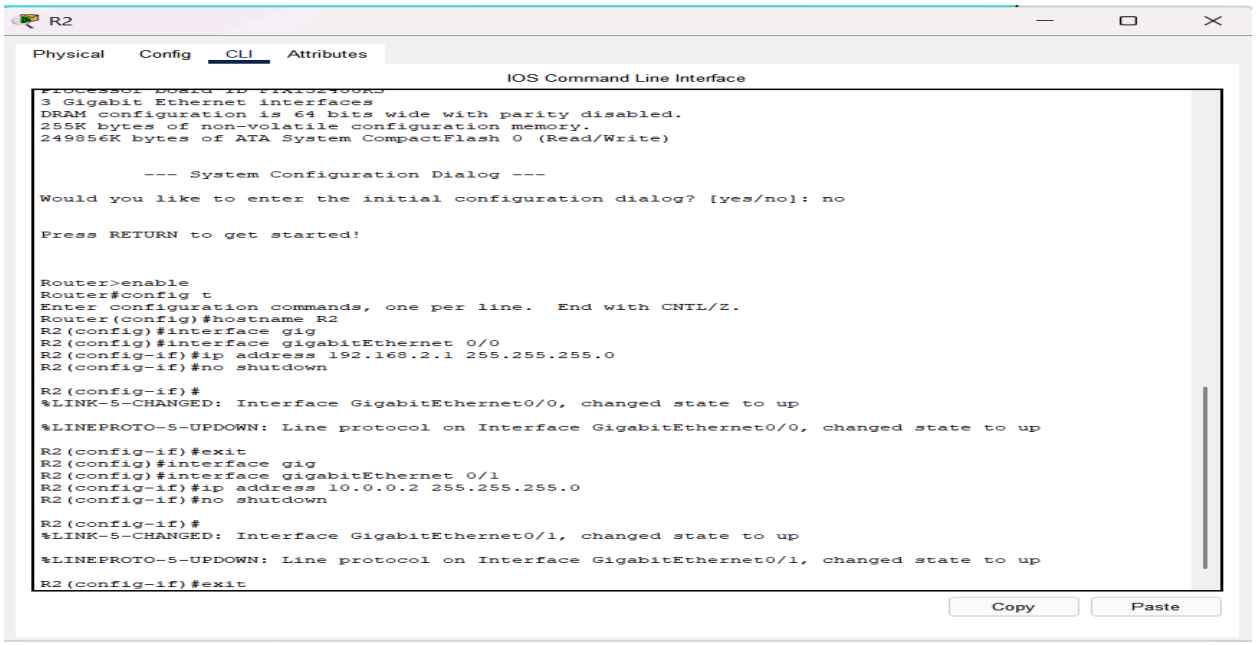
Router 1 IP Route
-ip route 192.168.2.0 255.255.255.0 10.0.0.2



Router 2 Configuration:
- G0/0: 192.168.2.1
- G0/1: 10.0.0.2

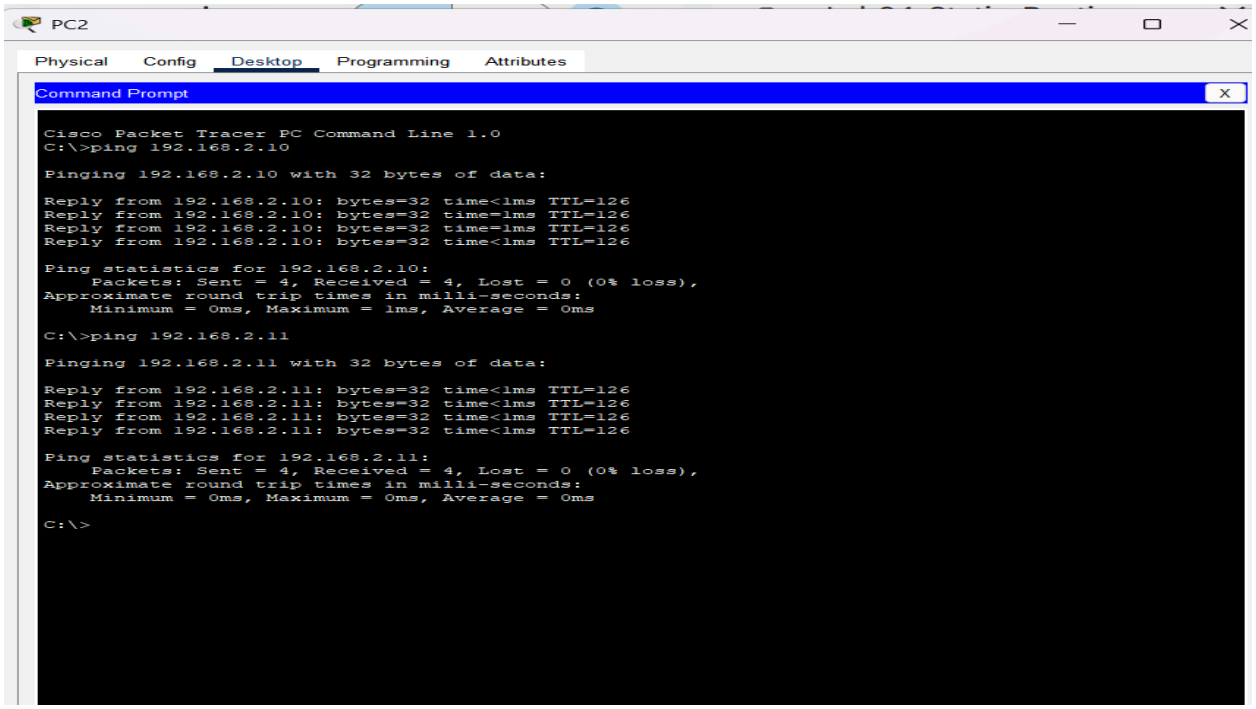
Router 2 IP Route
-ip route 192.168.1.0 255.255.255.0 10.0.0.1

Purpose of IP Routing
-To specify the path data will travel in a static routing

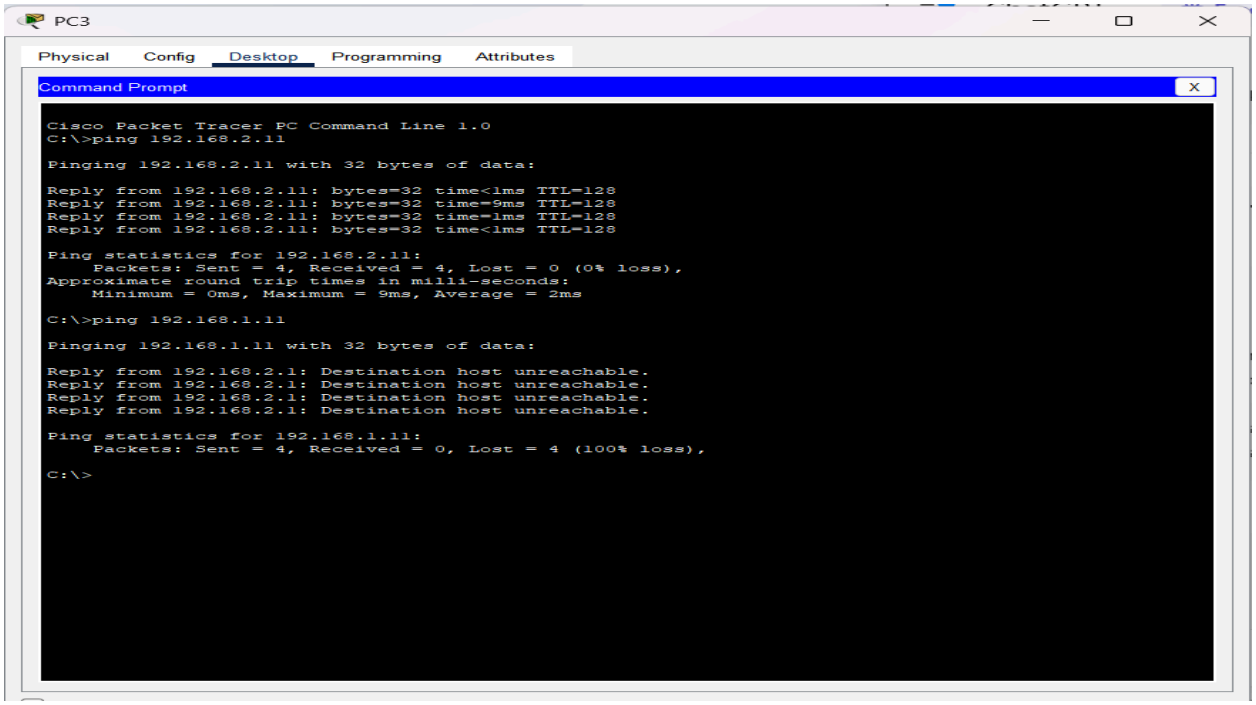


Verification:
- Successful ping between LAN 1 and LAN 2

PC2 to PCs in LAN 2



PC3 to PCs in LAN1



Lessons Learned:
- Two routers form a static connection to connect two different networks
- Default gateways allow devices to leave their LAN
- Each interface belongs to a different network
- The two routers are connected to each other via a WAN link using a crossover cable