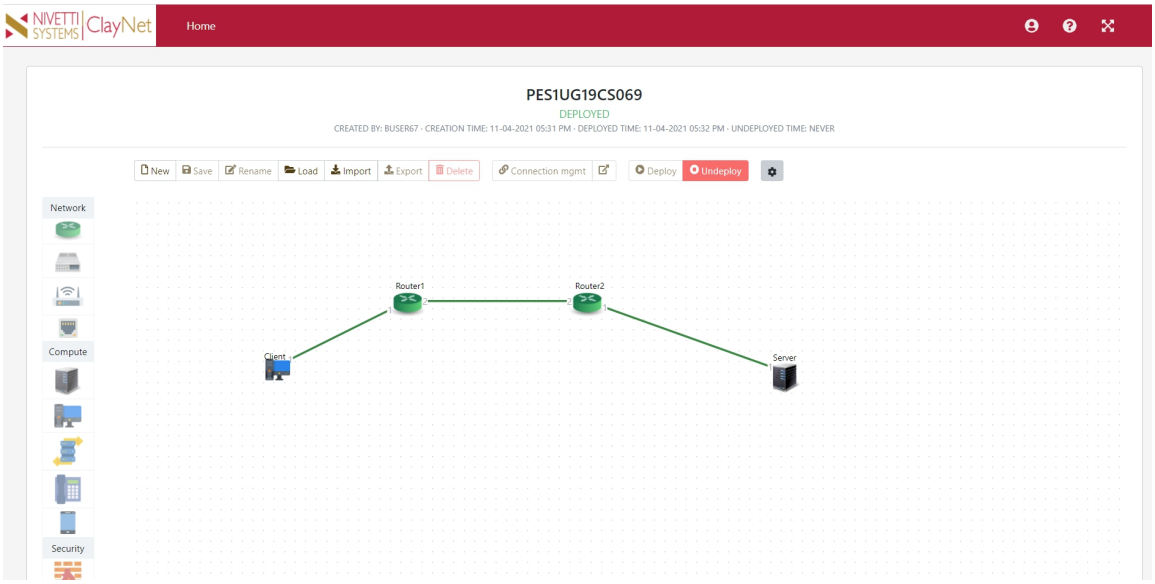
ANKITH J RAI
PES1UG19CS069
“B” Section

TASK 1 : IPv4 Addressing and Topology Creation

The following topology is created and deployed on ClayNet.



The configuration of all the end-system devices are :

End System	IP Address	Gateway
Client	10.10.10.2/24	10.10.10.1
Server	30.30.30.2/24	30.30.30.1

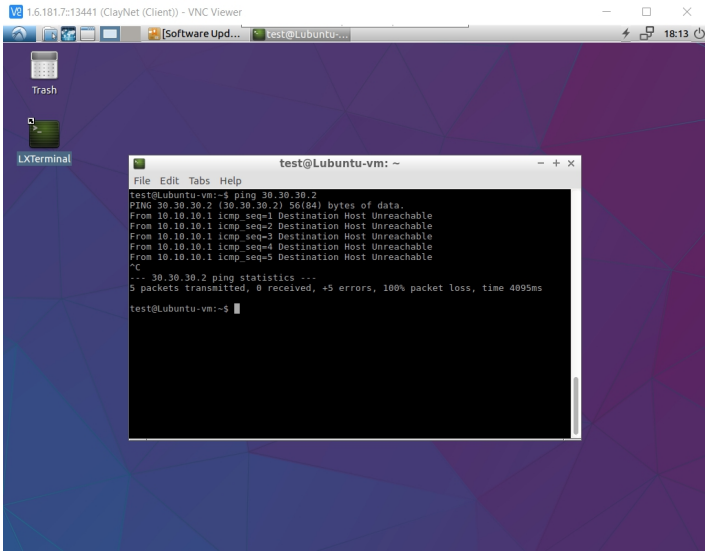
Similarly, the routers are configured as:

Router	Interface Number (port)	IP Address
Router1	1	10.10.10.1/24
Router1	2	20.20.20.1/24
Router2	1	30.30.30.1/24
Router2	2	20.20.20.2/24

Ping Command

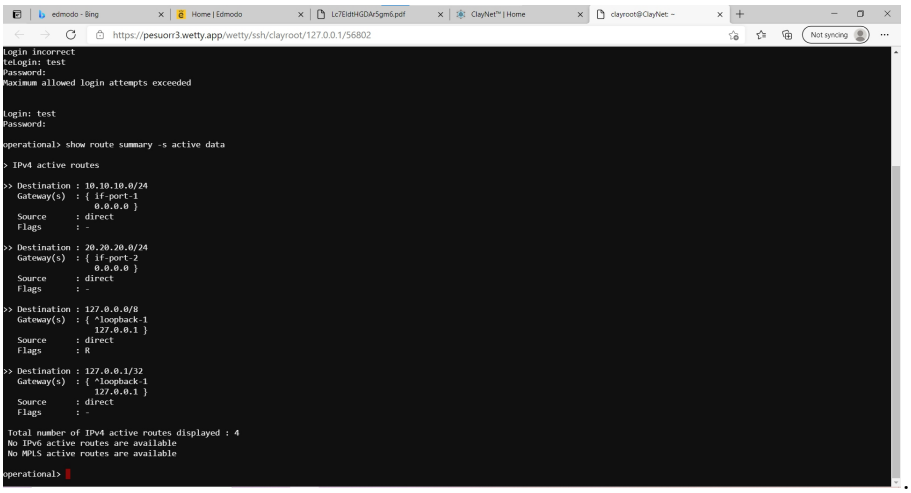
From Client, a ping command is made to Server.

However, this ping command fails because the routing table entries have not been configured for Router1 and Router2.

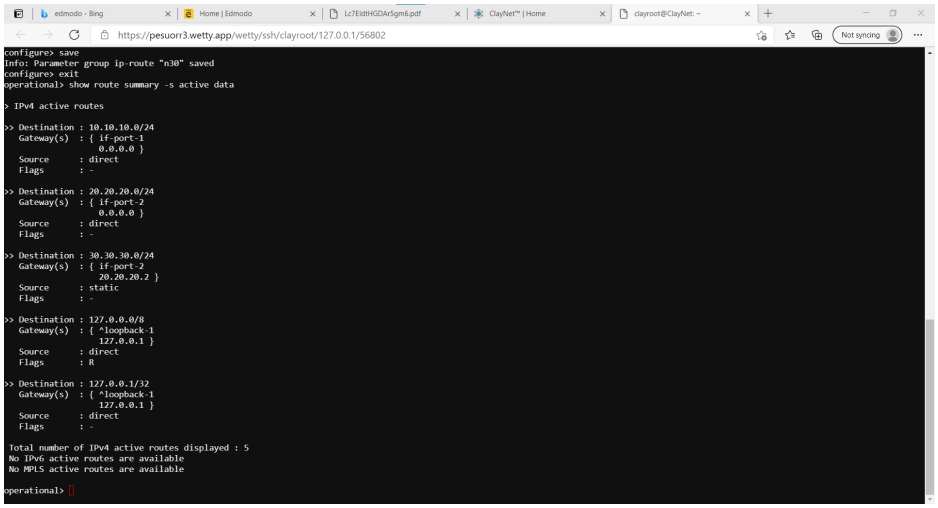


Configuration of Routing Table Entries

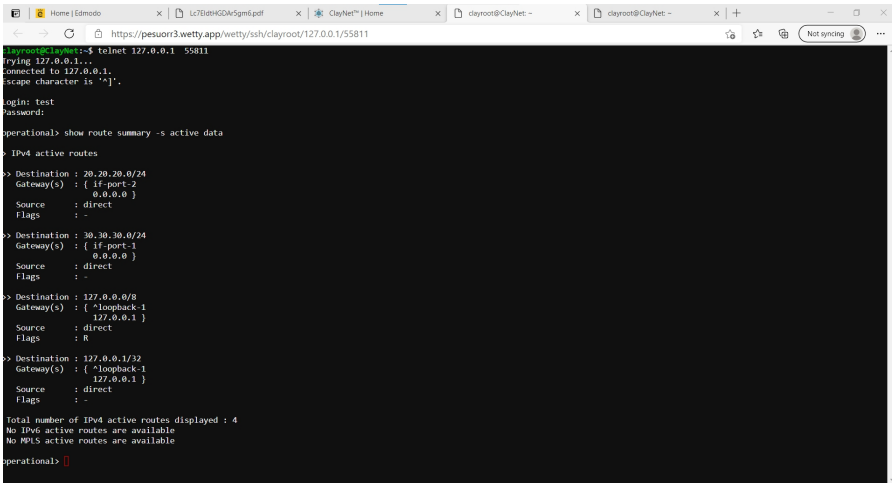
Router 1



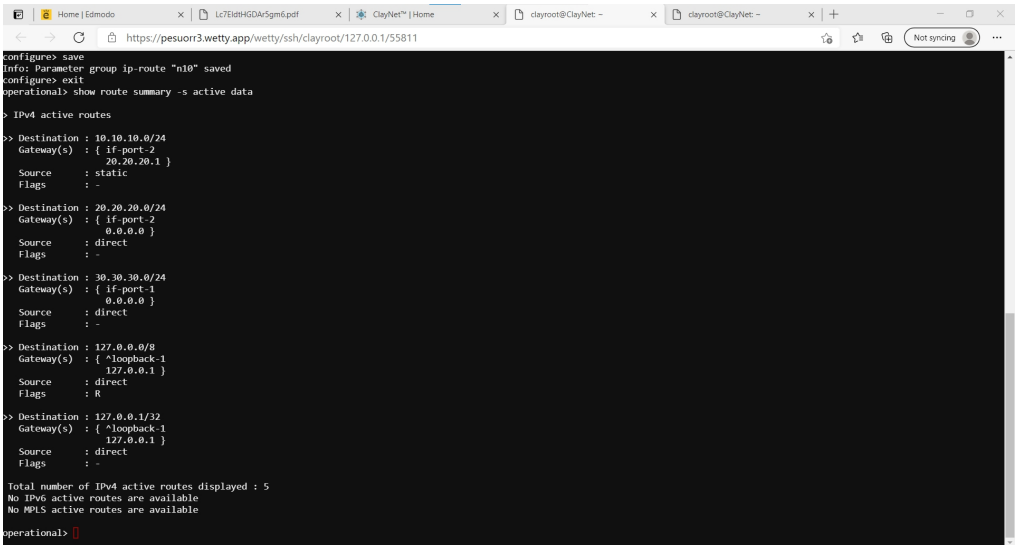
Routing Table Entry after configuration.



Router 2

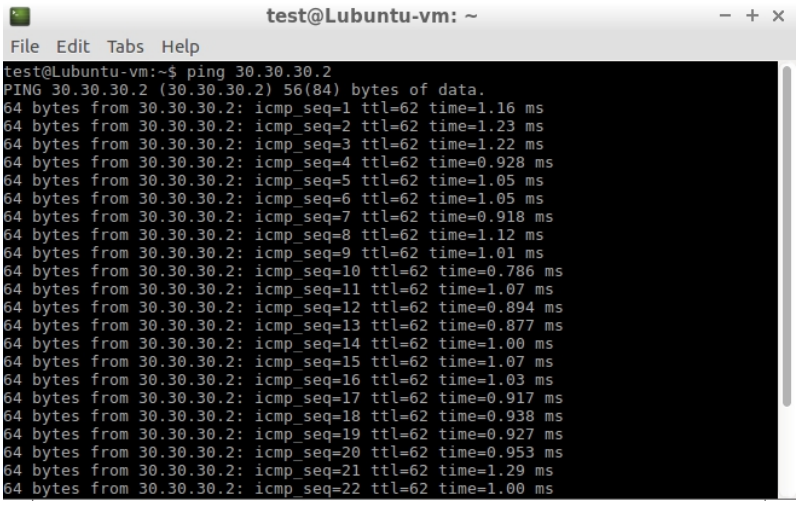


Routing Table Entry after configuration

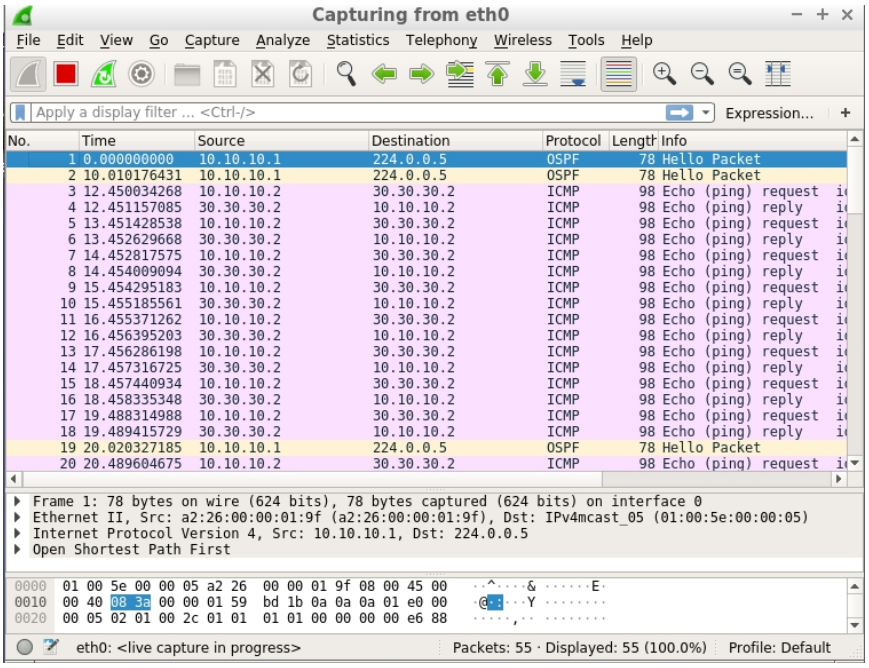


Observations

Client and Server are now reachable from each other.To verify this, the ping command is again used to ICMP request packets to the other.



The following Wireshark Packet Capture shows ICMP request packets being sent from Client to Server.



The following screenshot displays the outcome of the traceroute command from Client to Server.