Project Report

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CYBER – A

Contents

Introduction:

The project is implemented using all the concepts of computer networks the networks are made and configured to communicate to the other networks as per the requirements of the project

Subnets calculation

vlsm is calculated by a tool and also implemented on the router networks

| Name	Hosts Needed	Hosts Available	Unused Hosts	Network Address	Slash	Mask	Usable Range	Broadcast	Wildcard
Host1	71036	131070	60034	192.168.0.0	/15	255.254.0.0	192.168.0.1 - 192.169.255.254	192.169.255.255	0.1.255.255
Host2	64281	65534	1253	192.170.0.0	/16	255.255.0.0	192.170.0.1 - 192.170.255.254	192.170.255.255	0.0.255.255
Host3	57810	65534	7724	192.171.0.0	/16	255.255.0.0	192.171.0.1 - 192.171.255.254	192.171.255.255	0.0.255.255
Host4	57391	65534	8143	192.172.0.0	/16	255.255.0.0	192.172.0.1 - 192.172.255.254	192.172.255.255	0.0.255.255
Host5	30627	32766	2139	192.173.0.0	/17	255.255.128.0	192.173.0.1 - 192.173.127.254	192.173.127.255	0.0.127.255
Host6	29105	32766	3661	192.173.128.0	/17	255.255.128.0	192.173.128.1 - 192.173.255.254	192.173.255.255	0.0.127.255
Host7	21096	32766	11670	192.174.0.0	/17	255.255.128.0	192.174.0.1 - 192.174.127.254	192.174.127.255	0.0.127.255
Host8	17503	32766	15263	192.174.128.0	/17	255.255.128.0	192.174.128.1 - 192.174.255.254	192.174.255.255	0.0.127.255
Host9	13984	16382	2398	192.175.0.0	/18	255.255.192.0	192.175.0.1 - 192.175.63.254	192.175.63.255	0.0.63.255
Host10	12783	16382	3599	192.175.64.0	/18	255.255.192.0	192.175.64.1 - 192.175.127.254	192.175.127.255	0.0.63.255
Host11	9842	16382	6540	192.175.128.0	/18	255.255.192.0	192.175.128.1 - 192.175.191.254	192.175.191.255	0.0.63.255

Topology:
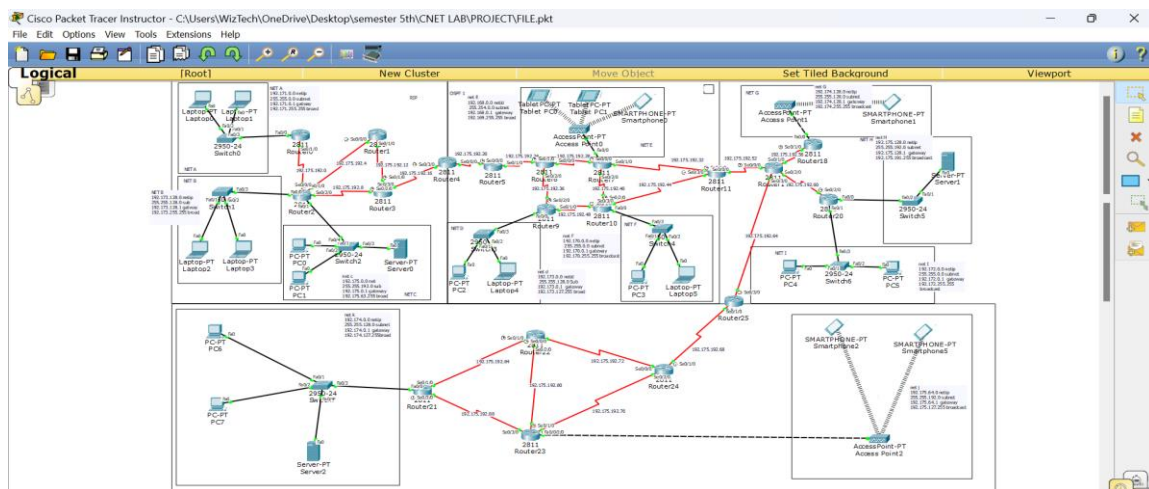
Configuration:

RIP

RIP version 2 is used to enter all of the networks on the routers specifically and it works perfectly with in he RIP zone before redistribution

OSPF

OSPF 10 is configured in the central area and it is working properly within the network D, E, F.

EIGRP

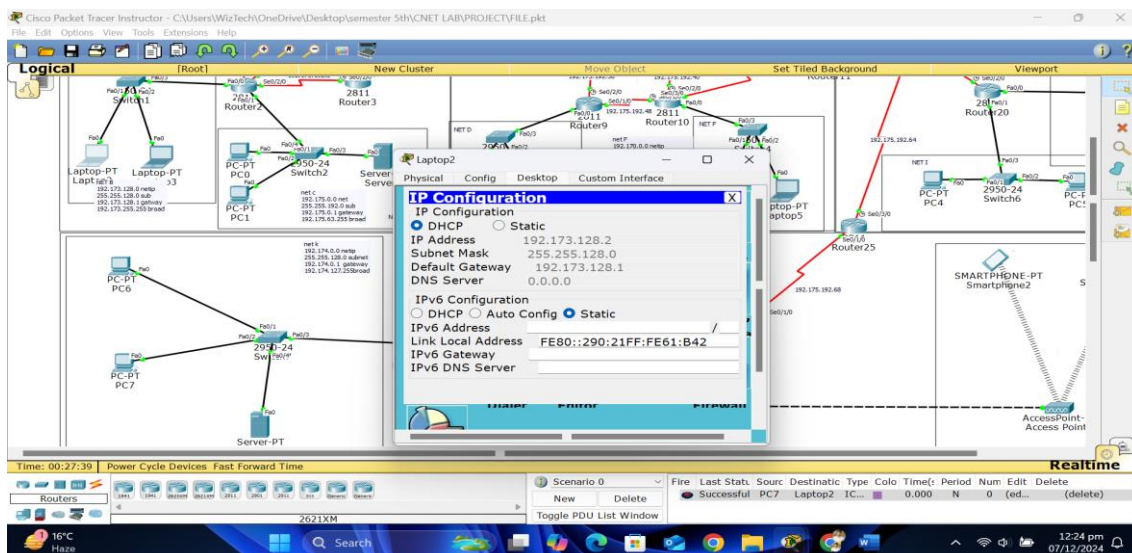EIGRP is configured just like the OSPF but it uses the wild card mask instead of subnet.
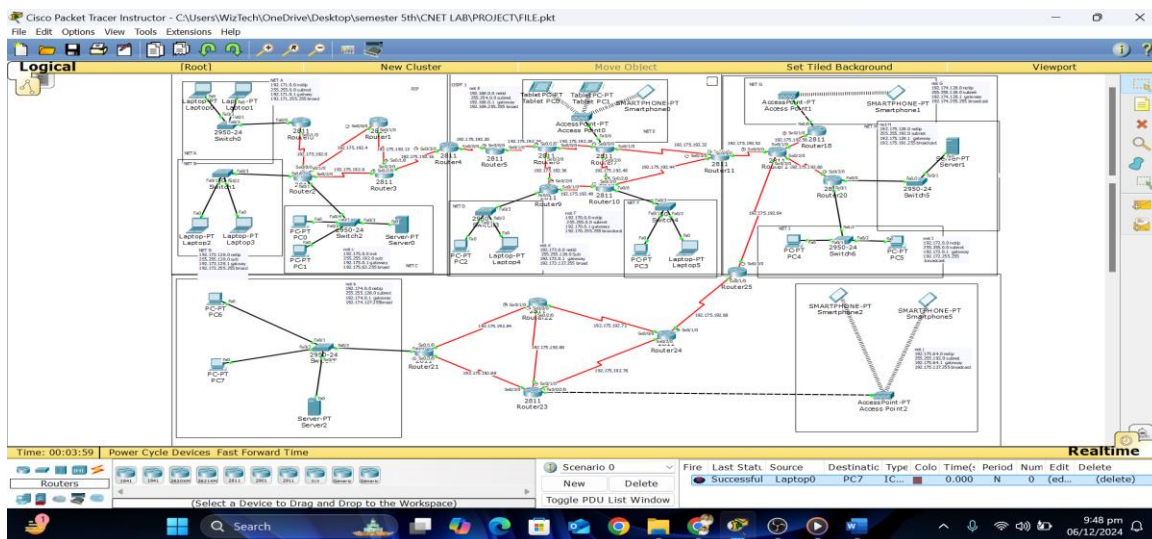
Redistribution:

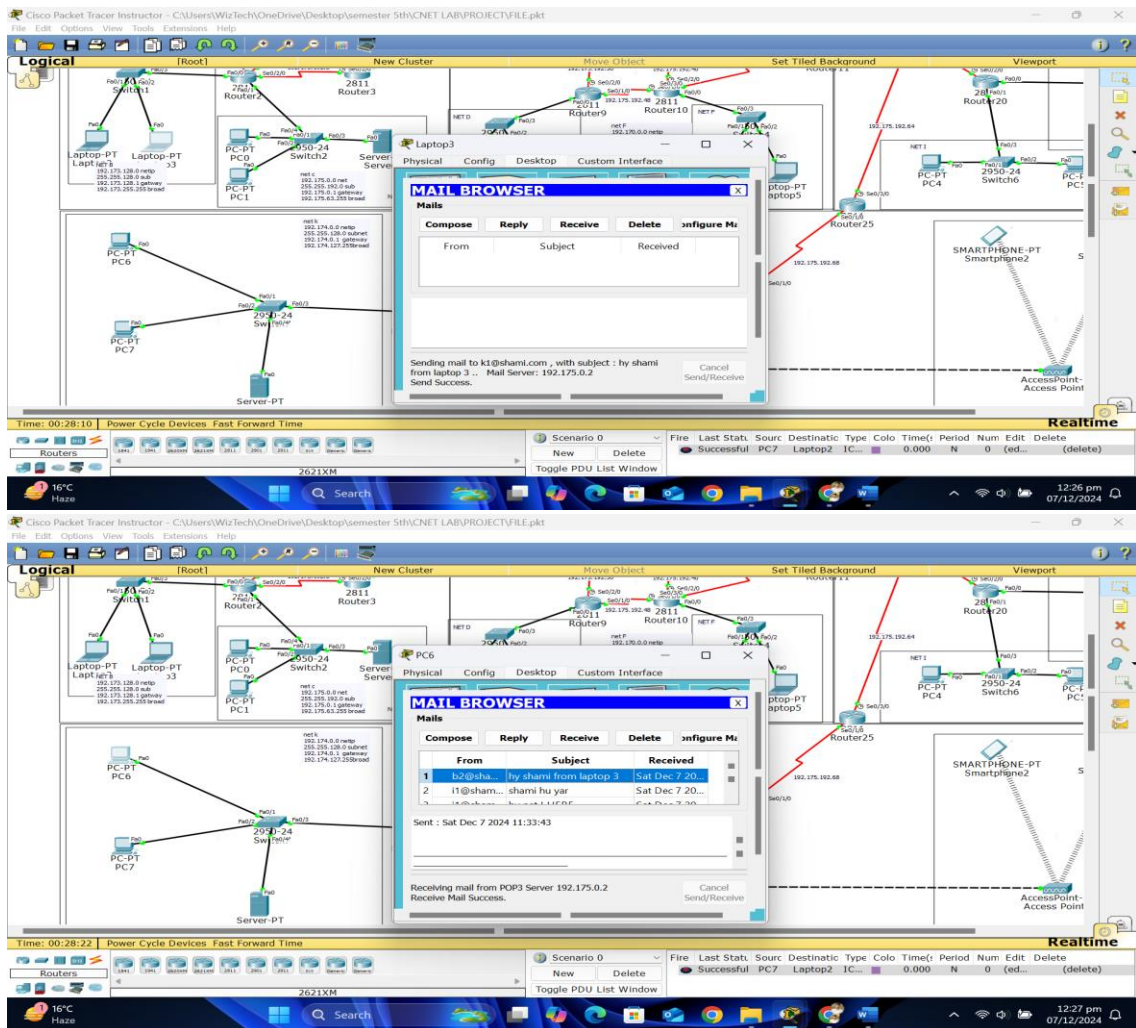Redistribution is done on the mutual routers of different algorithms

DHCP

DHCP is configured in the network k block that helps to assign the ip addresses to all of the host across the different networks.

Email server:

Email server is setup in the first block and it delivers best email service to all of the clients of different networks
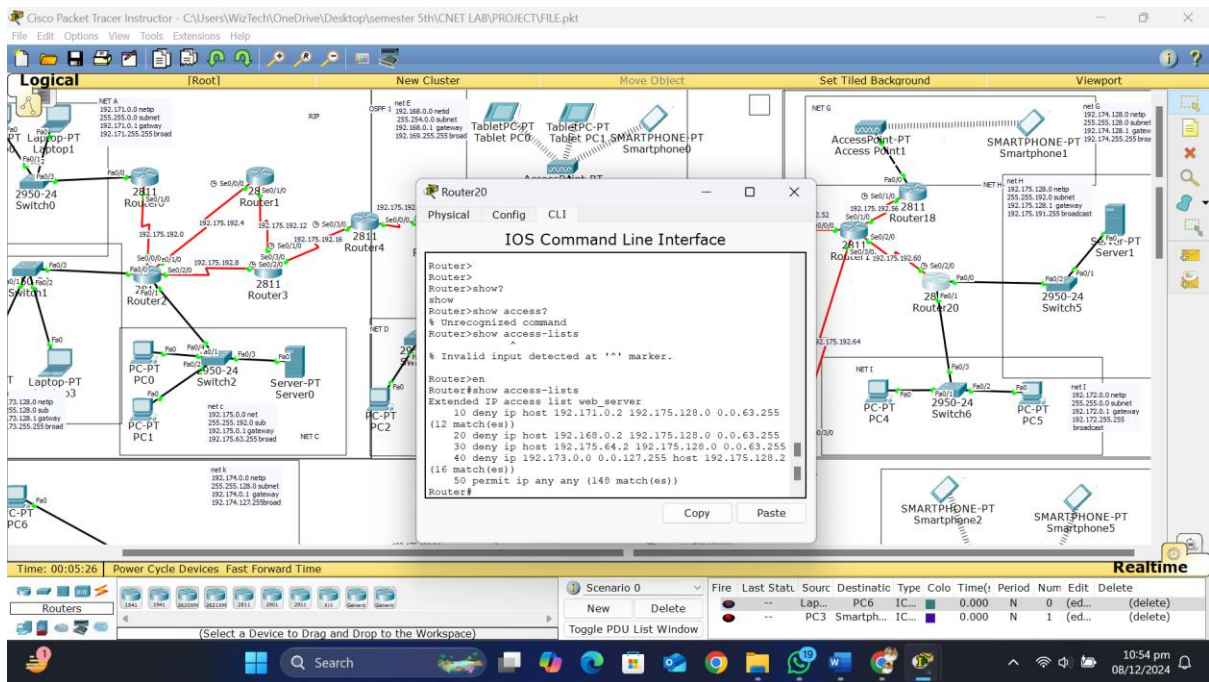
Web server:

web server is deployed in the network H and it will be restricted to allowed computer of multiple networks according to requirements it will be done by implementing ACLS.

ACLs:

Starting IPs of required networks are blocked through ACLs on the adjacent router of the server

NAT:

Nat has been configured on the required routers and it is showing malfunctional behaviour to some extent