**OSPF**

In this lab, we are interested in building the complete network topology shown below

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You should have a detailed subnetting plan for your entire network.

The next step is to run OSPF on all the four routers R1, R2, R3 and R4. For this purpose, Quagga has been installed and configured on all the router VM’s and the student should be able

to configure the ospfd using the vtysh terminal. If you wish to have a GUI after logging in do the following:

sudo su

systemctl start lightdm.service

relogin as student

Delete the static routes on all the VMs you entered from a previous lab.

ex. “up route add -net 192.168.0.0 netmask 255.255.0.0 gw 192.168.1.1“

Start up the quagga service on all the routers.

***Sudo /etc/init.d/quagga start***

Open up a terminal window and type in the command ***sudo vtysh*** to get to the vtysh prompt. Enter the command ***configure terminal*** on the vtysh shell to enter the configuration mode. To configure the ospf daemon enter the command ***router ospf***, then assign the network address’s to their respective areas and reboot. Do this for each of the routers

Once routing protocol is up and running on all the routers you should now be able to ping the machines on different subnets. Attach a screenshot of the updated routing tables (run the command ***route***) on all four routers. Try to ping all other VM’s from the Kali machine and attach screenshots.