

Internet Technology: Project 5 Report

1) Team Details

Clearly state the names and needs of your team members (There are 2 of you)

Name: Prachiti Atigre **NetID:** pka24

Name: Ujani Patel **NetID:** ukp10

2) Collaboration:

Who did you collaborate with on this project? What resources and references did you consult? Please also specify on what aspect of the project you collaborated or consulted.

We did not collaborate with any other individuals on this project.

3) Briefly discuss how you implemented each function: setting up interface configurations, setting up default routes, and setting up the routes for each destination.

To set up the interface configurations, we used the “ip addr add” command to connect the IP addresses to their respective hosts.

Any external communication uses a default route, which moves the packets towards the gateway router r1. To set up those default routes, we used the command “ip route add default”, to connect the network interfaces to their respective IP addresses. For example, all the traffic arriving at host h1 must use the interface/device h1-eth0 to reach any destination other than itself.

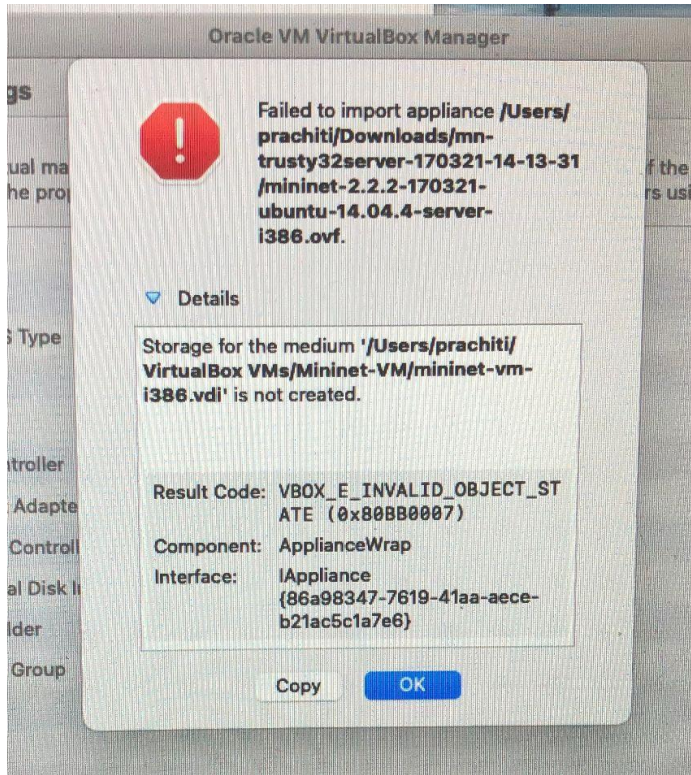
Lastly, to set up the routes for each destination, we used the “ip route add” command again where the IP addresses were used and the host is r1.

4) Is there any portion of your code that does not work as required in the description above?

No. All the requirements from the document have been implemented in our code

5) Did you encounter any difficulties? If so, explain.

Yes, we did encounter some difficulties. While setting up the virtual machine on the virtual box, we had issues importing the ovf file. It gave an error “Failed to import appliance”.



- 6) Describe one technical observation or facts you learned while working on this project. Please answer in specific and precise terms. Your observations could relate to topics involving the network layer in general, your implementation of network configuration in this project, the specific commands you used, or other topics that are relevant to your implementation of this project. Please ensure your responses are clear, specific, and technical.

While writing the commands, we noticed that while setting up the routes, we could either use the hostnames (h1, h2, h3, h4) or the IP addresses and it would do the same thing. For example, `r1 ip route add 10.0.0.1 dev r1-eth1` would do the same thing as `r1 ip route add h1 dev r1-eth1`.