Course Code: BCSE353E

Course Name: Information Security Analysis and Audit

Assessment – 3

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Cisco Packet Tracer to simulate a firewall

**Step 1:** First, open the Cisco packet tracer desktop and select the devices given below:

S.NO	Device	Model Name	Quantity
1.	PC	PC	3
2.	server	PT-Server	1
3.	switch	PT-Switch	1

IP Addressing Table:

S.NO	Device	IPv4 Address	Subnet Mask
1.	Server	1.0.0.1	255.0.0.0
2.	PC0	1.0.0.2	255.0.0.0
3.	PC1	1.0.0.3	255.0.0.0
4.	PC2	1.0.0.4	255.0.0.0

Then, create a network topology as shown below the image.
Use an Automatic connecting cable to connect the devices with others.
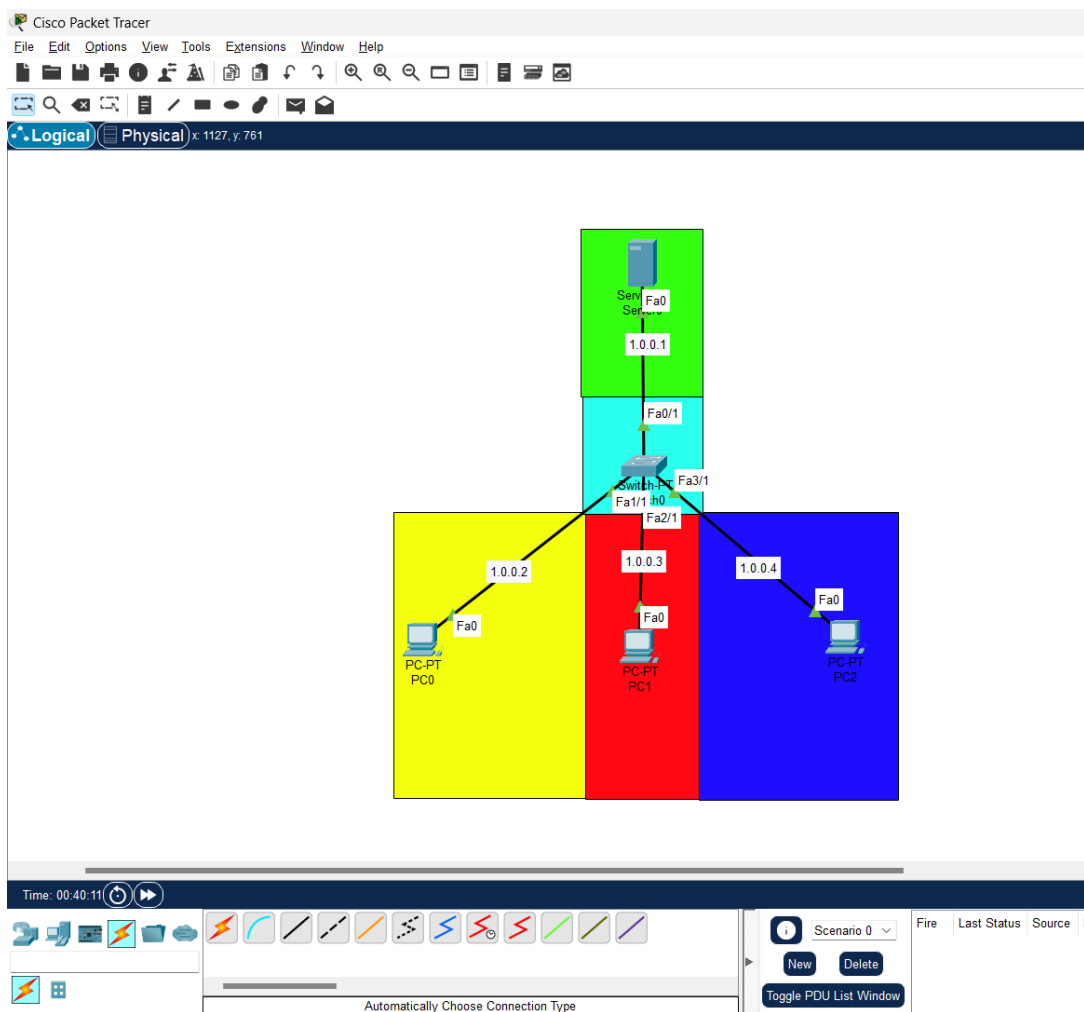
Step 2: Configure the PCs (hosts) and server with IPv4 address and

Subnet Mask according to the IP addressing table given above.

- To assign an IP address in PC0, click on PC0.
- Then, go to desktop and then IP configuration and there you will

IPv4 configuration.

- Fill IPv4 address and subnet mask.
- Repeat the same procedure with the server

Step 3: Configuring the firewall in a server and blocking packets and allowing web browser.

- Click on server0 then go to the desktop.
- Then click on firewall IPv4.
- Turn on the services.
- First, Deny the ICMP protocol and set remote IP to 0.0.0.0 and Remote wildcard mask to 255.255.255.255.
- Then, allow the IP protocol and set remote IP to 0.0.0.0 and Remote wildcard mask to 255.255.255.255 and add them.
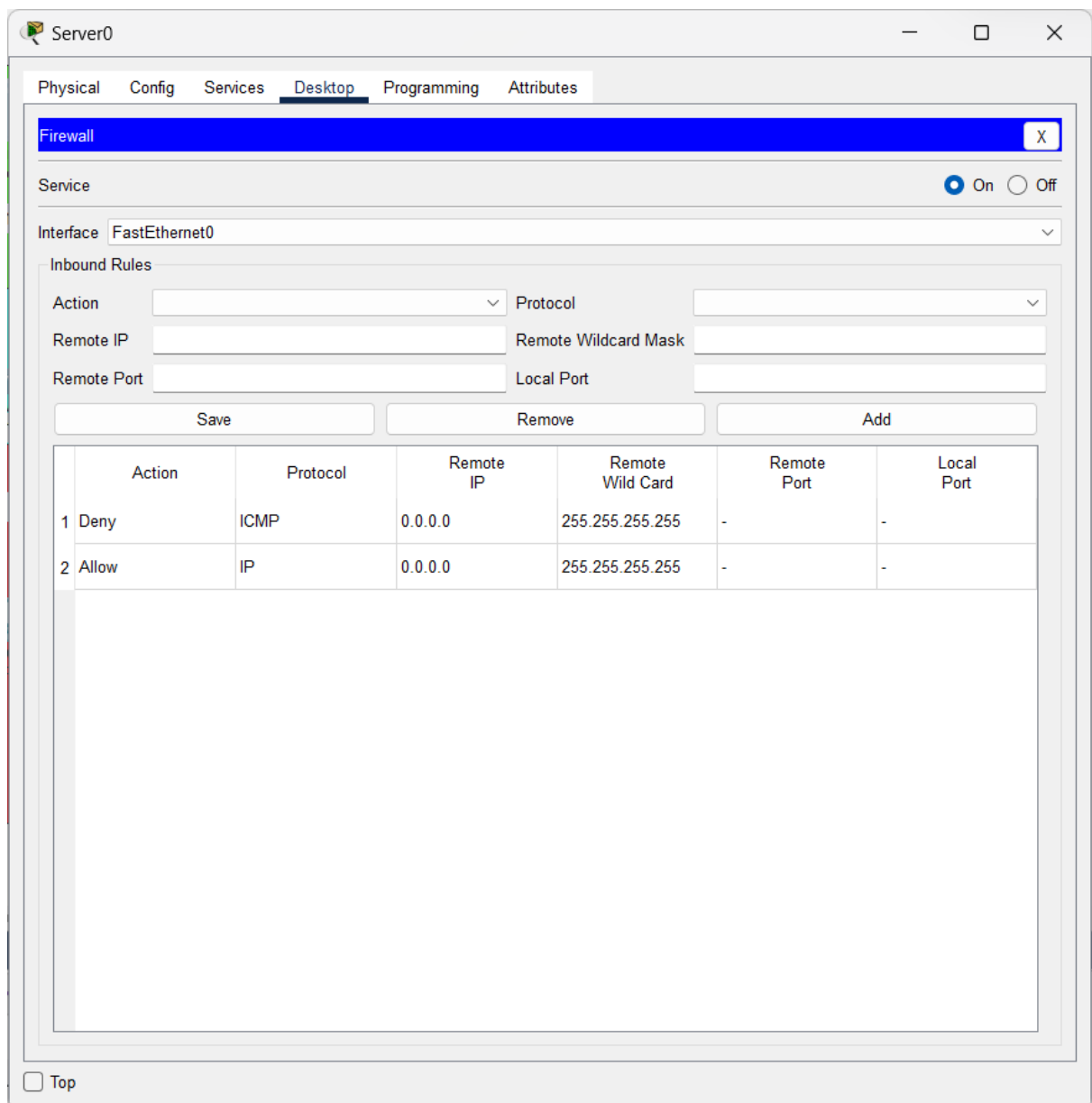
Step 4: Configuring the firewall in PC0 and verifying:
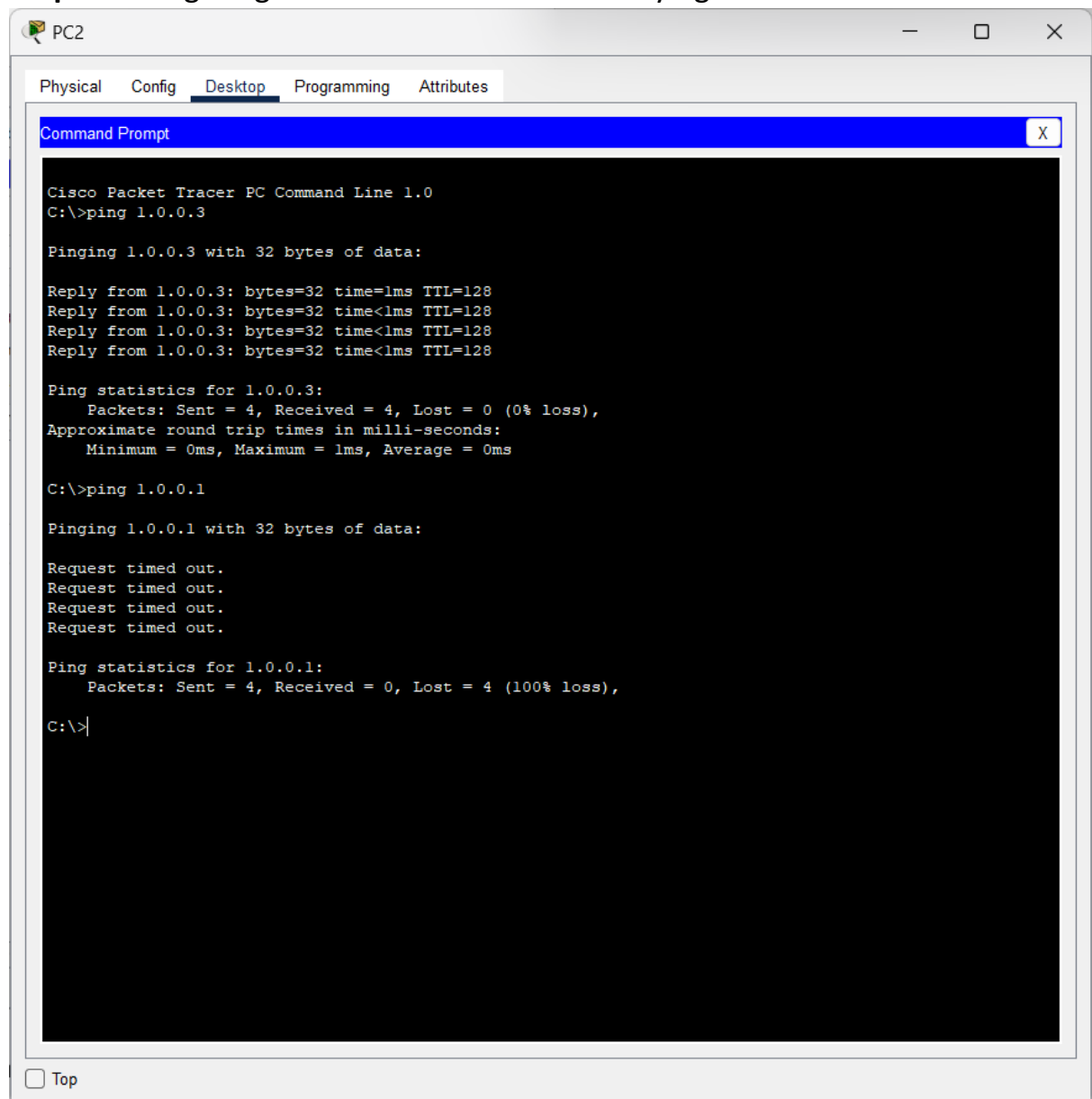
Hence Verified as we get reply from the 1.0.0.3 IP ping but not from 1.0.0.1 .