NETW191

PROJECT

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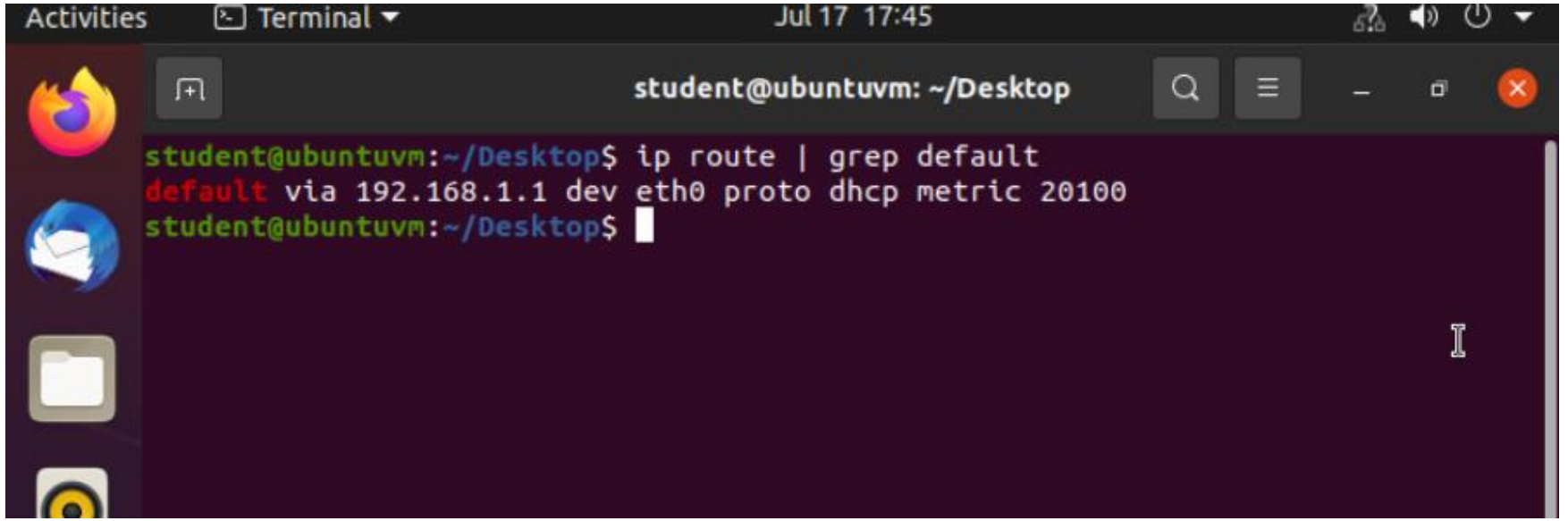
IPv4 Addressing

Preparation

Assignment

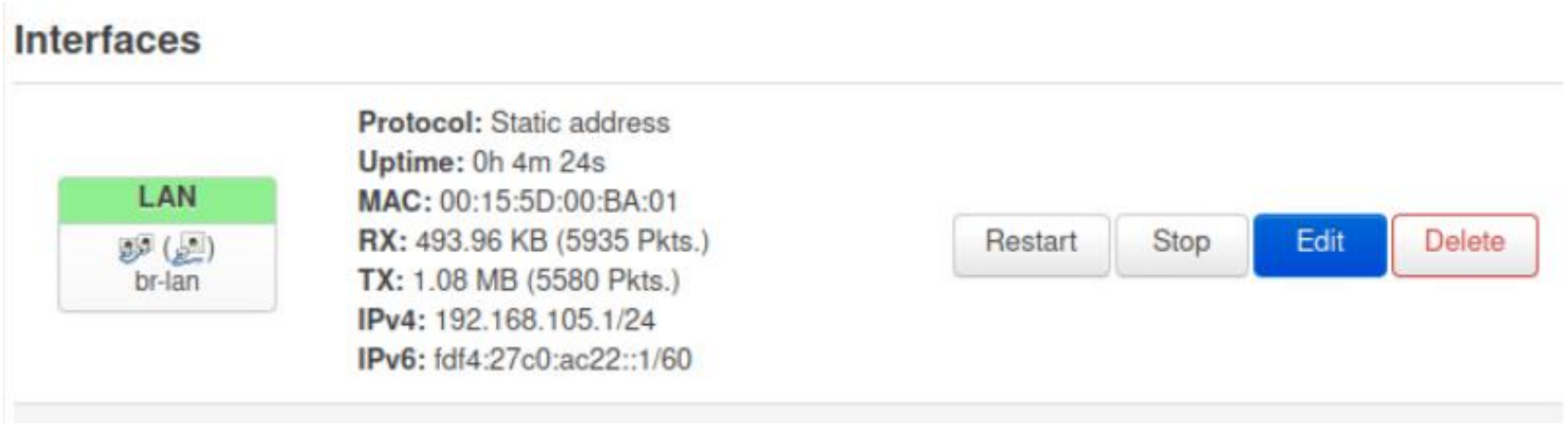
Preparation

This screenshot should include the terminal window that shows the default gateway IP address.



IPv4 Address Assignment

This screenshot should include the *Interfaces* page that shows the new IPv4 address on the LAN interface.



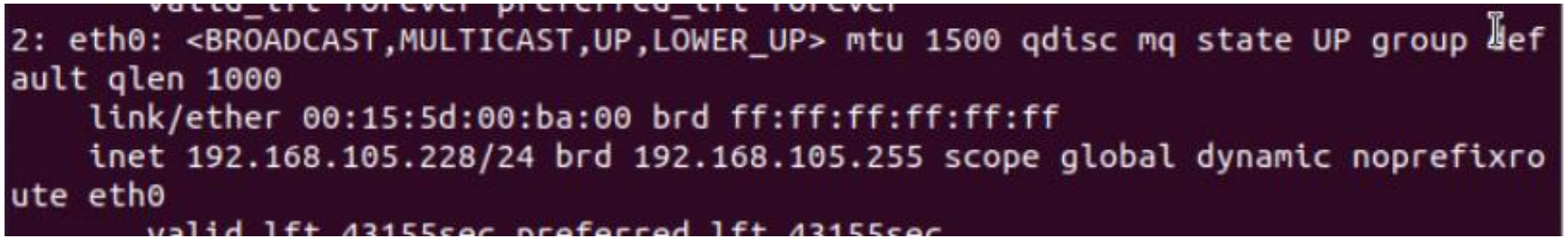
Connectivity Test

Dynamic IP Address Assignment

Connectivity Test

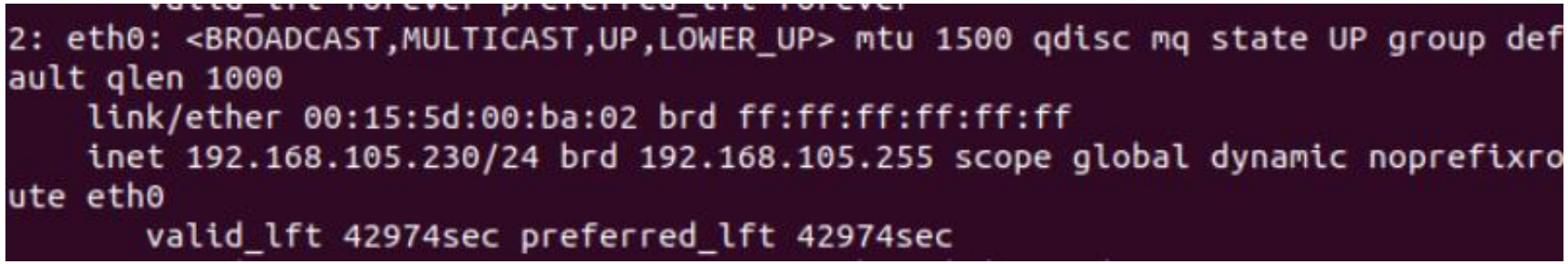
Dynamic IP Address Assignment

This screenshot should show the IPv4 address of the *Computer 1* VM.



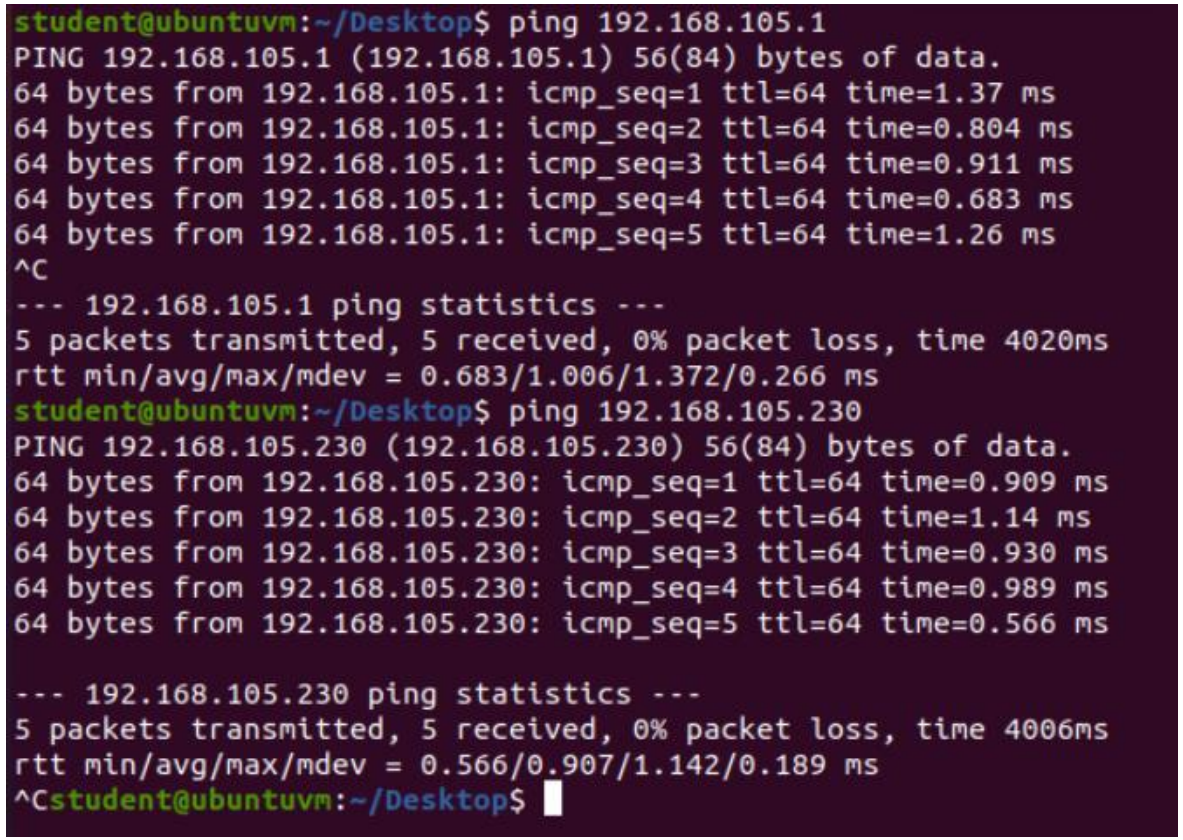
Dynamic IP Address Assignment

This screenshot should show the IPv4 address of the *Computer 2* VM.



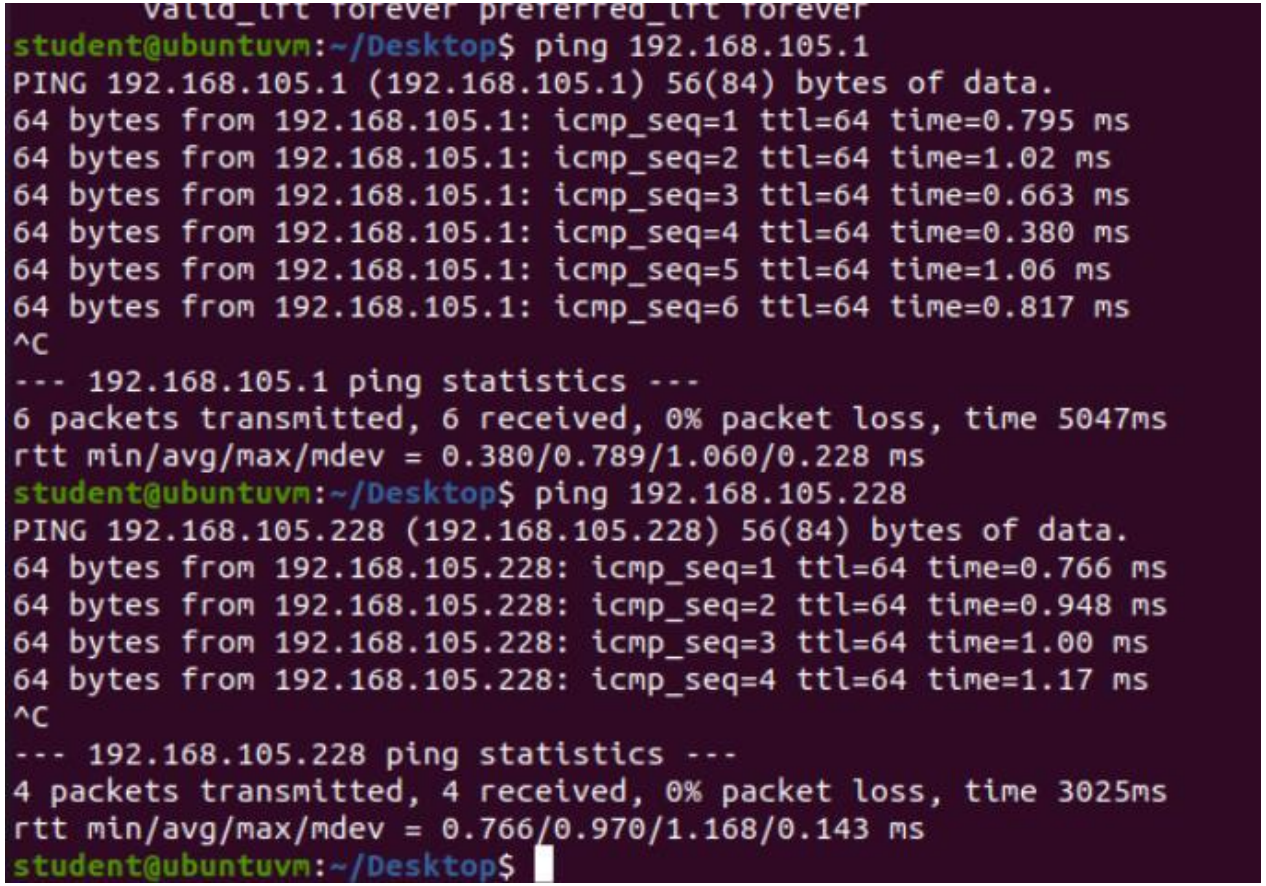
Connectivity Test

This screenshot should show the connectivity tests between the *Computer 1* VM and the other two devices (i.e., the *SOHO Router* VM and *Computer 2* VM).



Connectivity Test

This screenshot should show the connectivity tests between the *Computer 2* VM and the other two devices (i.e., the *SOHO Router* VM and *Computer 1* VM).



Subnetting and Loopback Interfaces

IP Subnetting

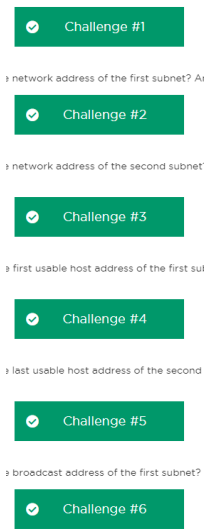
Loopback Interfaces

Connectivity Tests

Subnetting Table

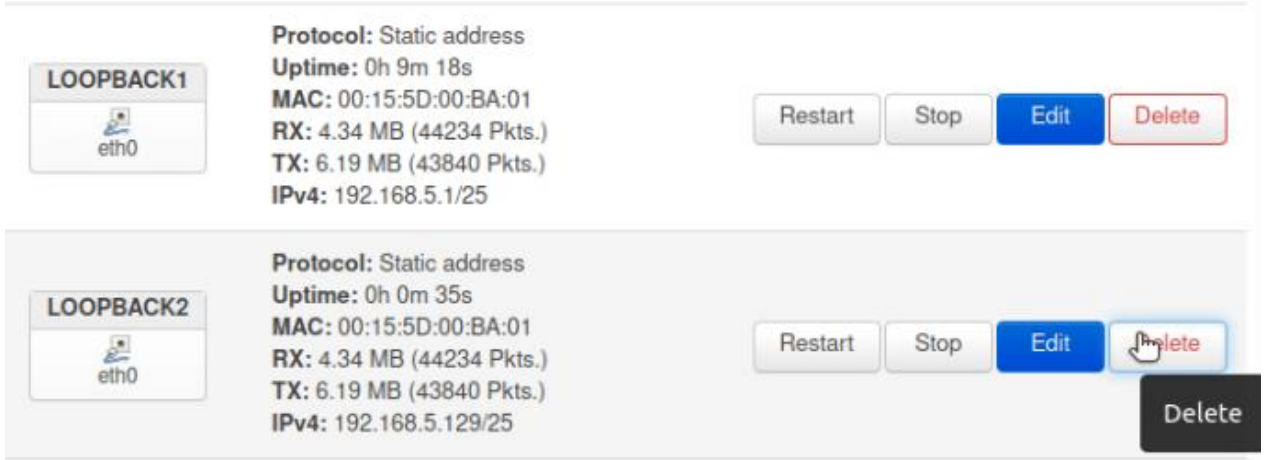
This table should include two /25 subnets, listing the subnet notation, network address, first usable host address, last usable host address, and broadcast address of each subnet.

Subnet	Subnet Notation	Network Address	First Usable Host Address	Last Useable Host Address	Broadcast Address
The First Subnet	**192.168.5.0/25**	192.168.5.0	192.168.5.1	**192.168.5.126**	192.168.5.127
The Second Subnet	192.168.5.1/25	192.168.5.128	**192.168.5.129**	192.168.5.254	**192.168.5.255**



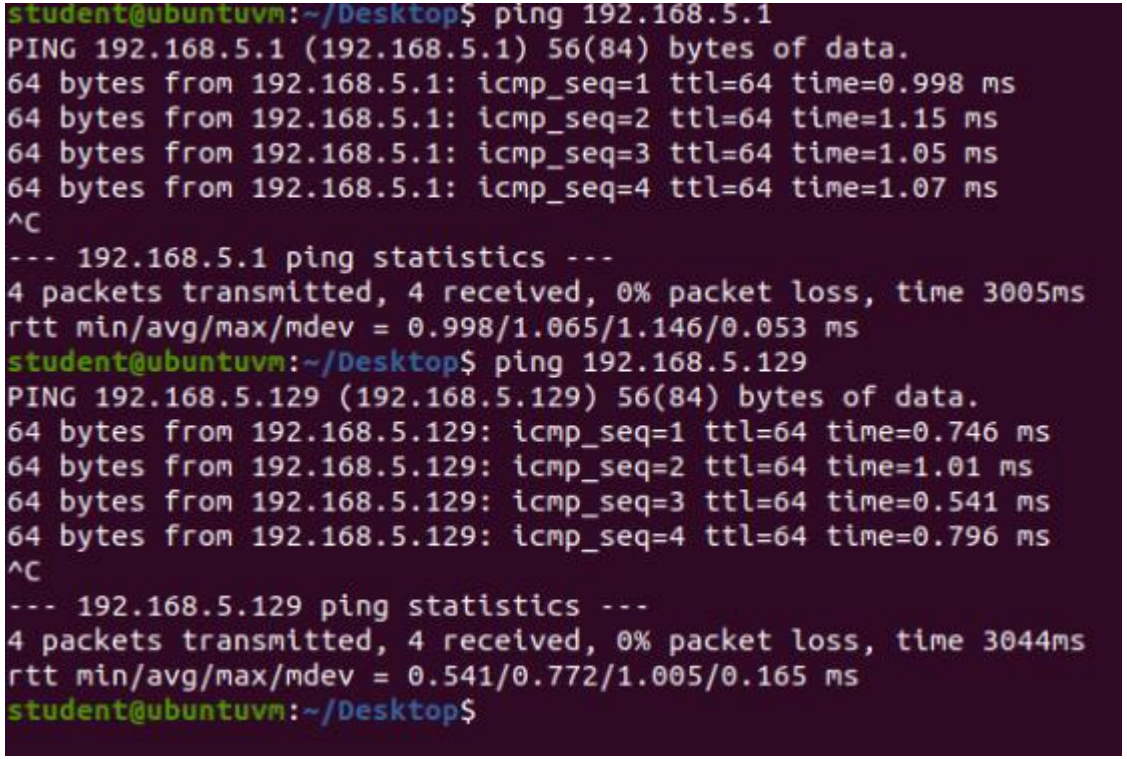
Loopback Interfaces

This screenshot should show both Loopback1 and Loopback2 interfaces and their correct IPv4 addresses.



Connectivity Tests

This screenshot should show two successful ping tests from the *Computer 1* VM to the *Loopback 1* and *Loopback 2* interfaces.

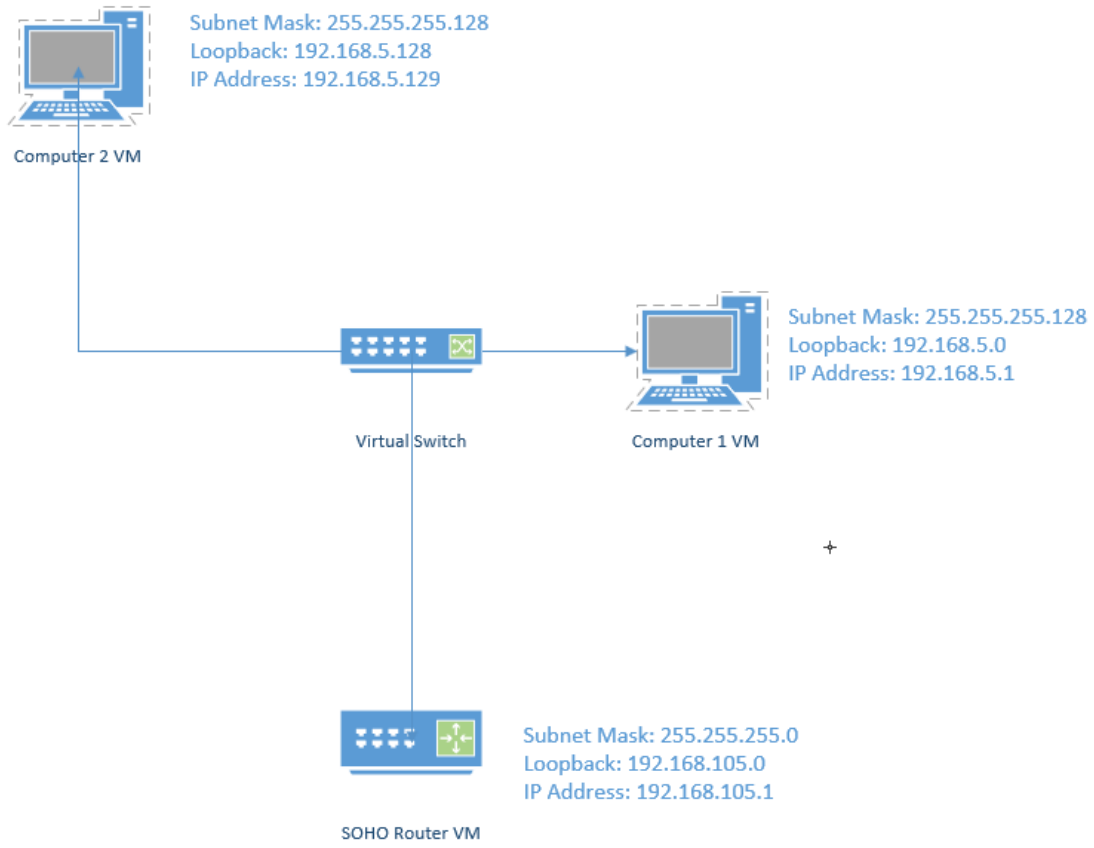


Microsoft Visio Network Diagram

Diagram

Microsoft Visio Network Diagram

This diagram should illustrate the interconnection of the *Computer 1* VM, the *Computer 2* VM, and the *SOHO Router* VM.



SOHO Wireless Network Security

- Q & A

SOHO Wireless Network Security

1. What are the factory default username and password of a TP-Link router? Why is it important to change the default username and password of a SOHO router?
Answer: admin; because you can find the default username and password of a SOHO router online.

2. To protect a SOHO wireless network with a small number of devices, which address management method provides more control, configuring the device IP addresses manually (static IP) or using a DHCP server (dynamic IP)? Why?
Answer: In terms of control, a static IP will give you more control as it is configured manually. Although DHCP is cheaper, it automatically assigns a vacant IP address to the network, eliminating the need to track which device has which IP by the admin.

3. What does MAC filtering do? If needed, when would you use deny filtering rules and when would you use allow filtering rules? What happens to devices that want to connect, if the "Allow the stations specified by any enabled entries in the list to access" function is enabled but there are no entries in the list?
Answer: Filtering allows you to control the wireless stations accessing the AP. You would deny filtering devices when you don't want that device on your Wi-Fi; likewise, when you need to troubleshoot a device, is when you want it to connect or just to monitor specific devices. It will turn on but until there entries in the list it won't do anything.

SOHO Wireless Network Security

1. What wireless security settings are displayed on the Wireless Security page? Which one is recommended by the vendor? Why?
Answer: WPA/WPA2 – Personal(Recommended), WPA/WPA2-Enterprise, WEP. It is recommended because it offers the best security.

2. Among the configurations you explored in this module, which one is a true security function? Why?
Answer: I consider Wireless Security as a true security function. The reasoning behind this is that it offers Encryption.

3. What would you do to protect your wireless network at home? Why?
Answer: In the case that someone is brave enough to try and log into my "CIA Mobile" network. They would have to crack a 32-character password protected router.

- First time using the InfoSec Website
- Understanding Subnetting

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CHALLENGES

- Subnetting
- CLI in Linux
- Networking Concepts
- Visio Diagram

NETW191

Skills Obtained

Networking does not mean to socialize. It is in fact a powerful tool in the Information Technology field. It’s the platform that the entire internet runs on top of. Networking just means a set of computers sharing resources with each other. Whether that is printers, faxes or accessing the World Wide Web.

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CONCLUSION