# PRACTICAL LAB: TELNET CONFIGURATION

**JORDAN ALLISON**
jallison1@glos.ac.uk

# Practical Lab: Telnet Configuration - JA

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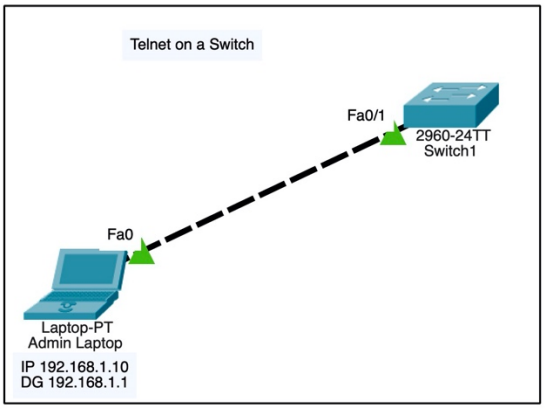
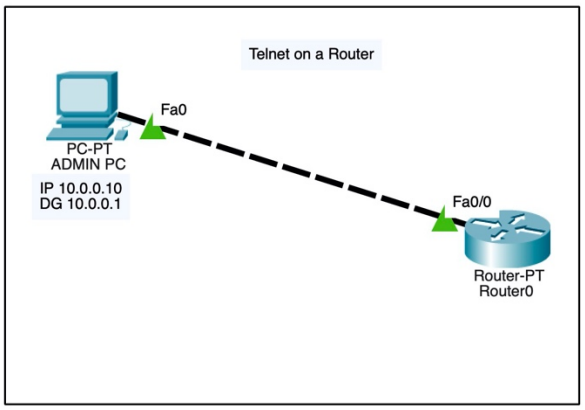
# 1 Introduction

For this practical we will be using *Cisco Packet Tracer,* a tool provided by Cisco to build and test Cisco networks. In this lab we are going to configure Telnet for both a switch and a router in the following topologies.



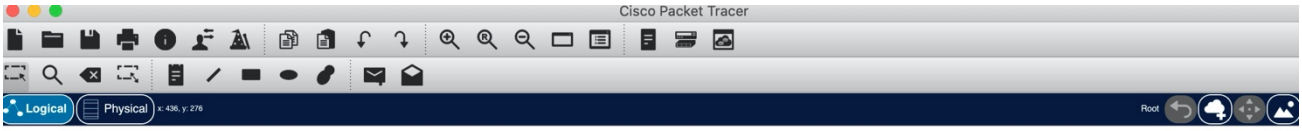



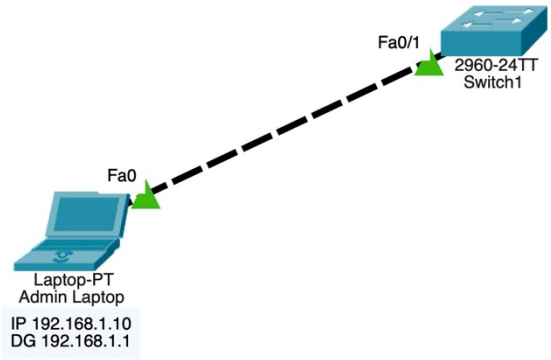

Telnet is an application layer protocol that allows a network administrator to access and manage remote devices. A user on a client machine can use a Telnet client to access a command-line interface of another remote machine that is running a Telnet server program.

# 2 Telnet Configuration on a Switch

## 2.1 Setting Up Devices

Set up the following devices:

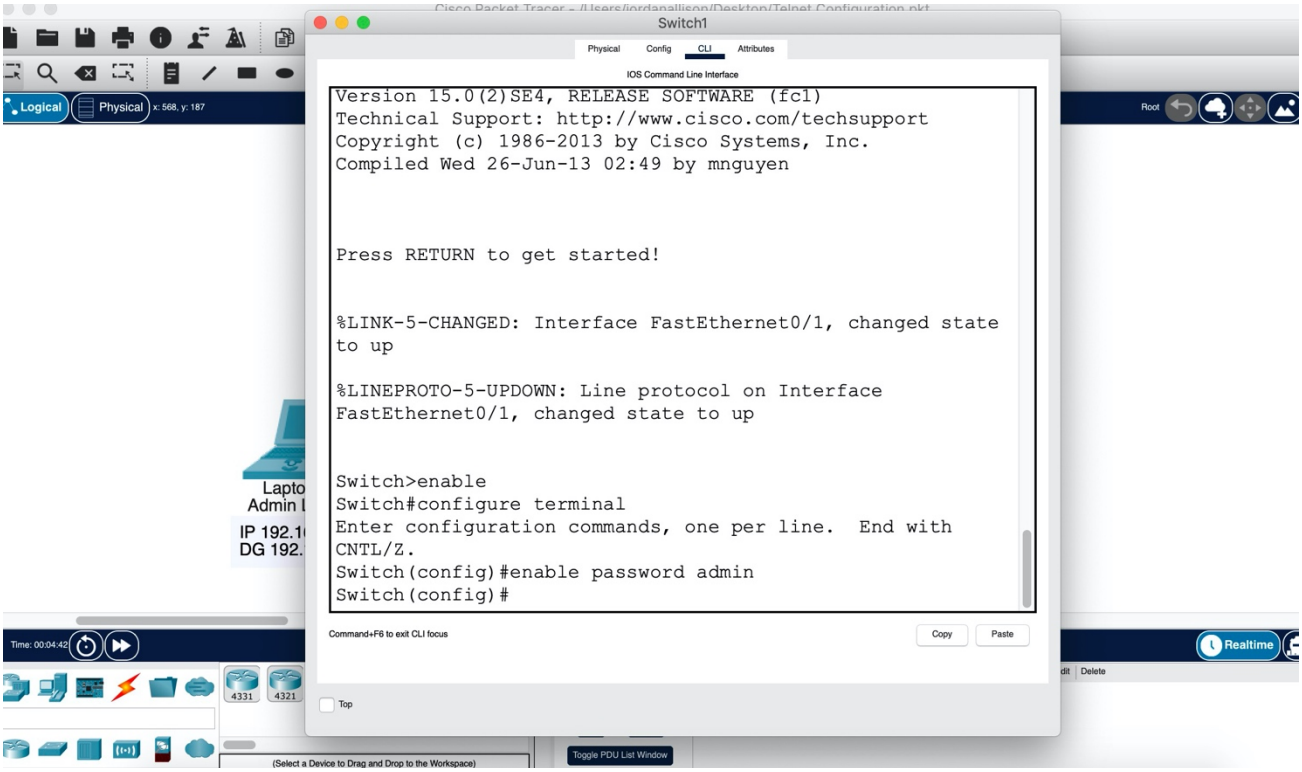


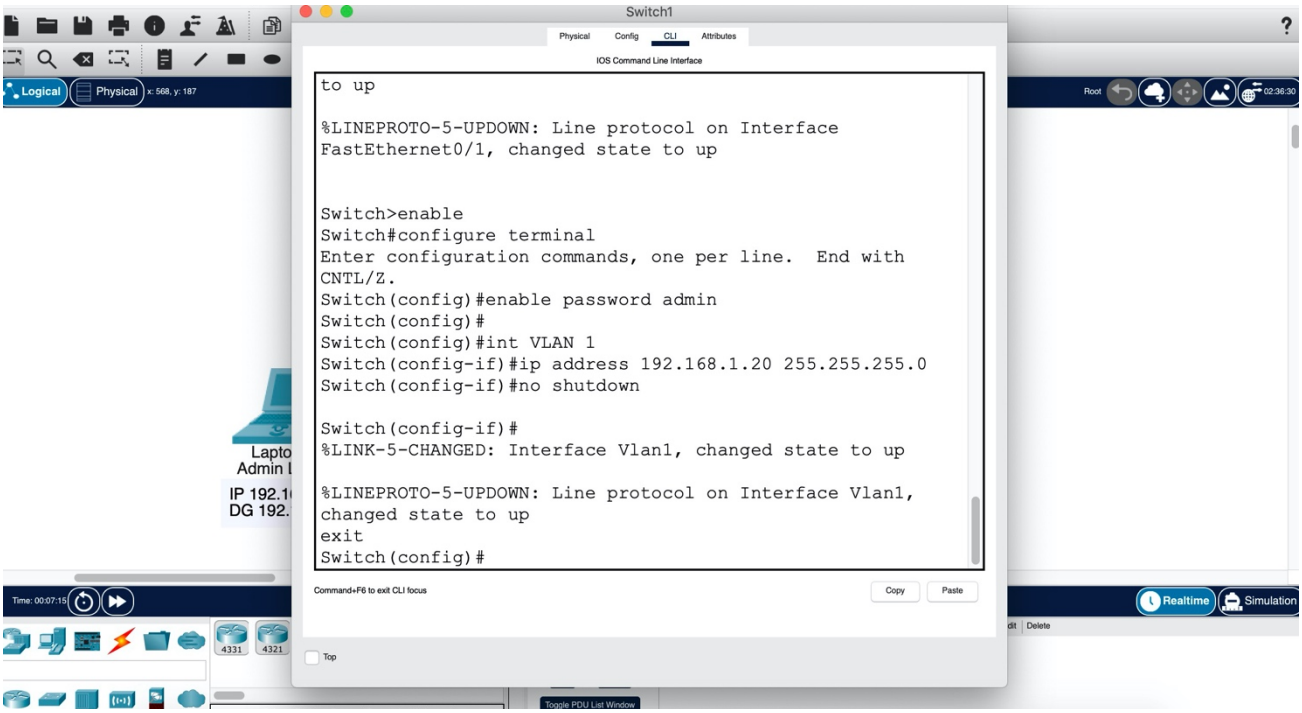

| Device | IP Addresses | Subnet Mask | Default Gateway |
|---|---|---|---|
| Admin Laptop | 192.168.1.10 | 255.255.255.0 | 192.168.1.1 |

## 2.2 Switch Configuration

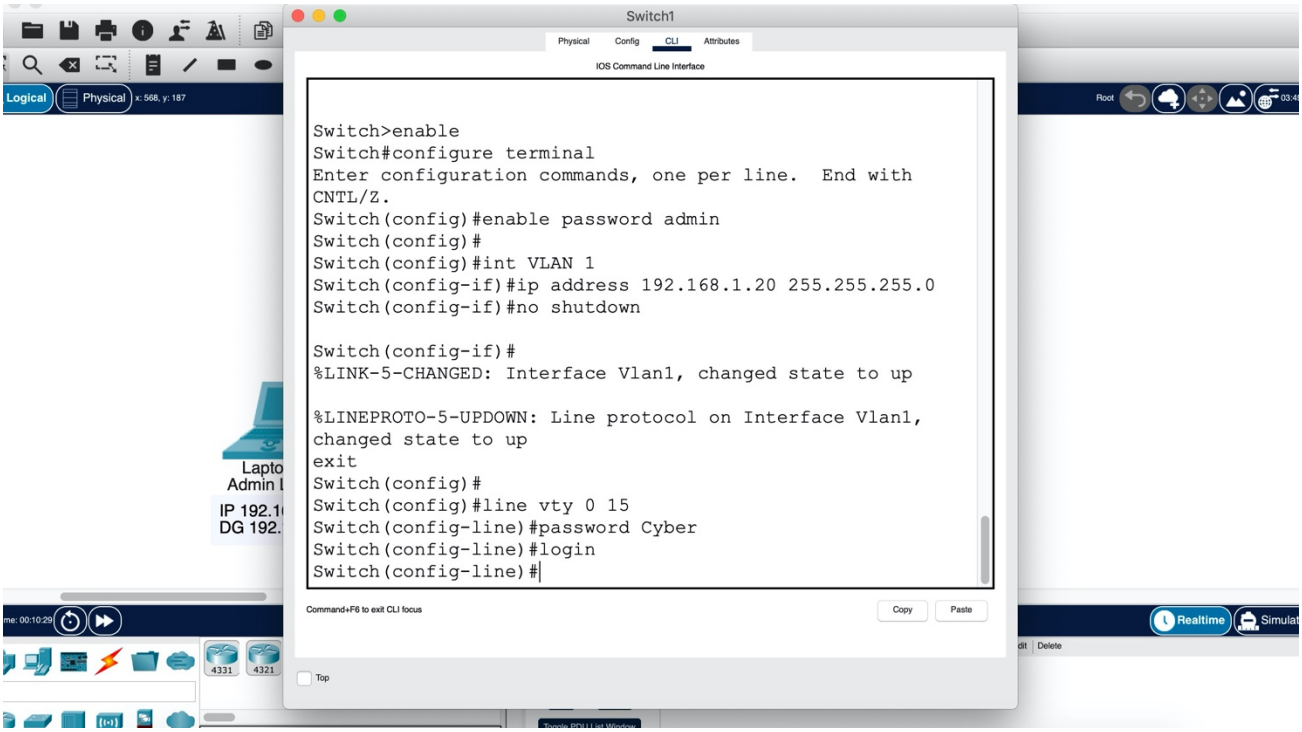
Configure enable password on the switch. If you do not do this, then you will not get past the executive mode of the switch even after you establish a telnet connection to the switch.




Now configure a VLAN interface on the switch. We assign an IP address to the VLAN interface of the switch so that we can Telnet the switch from the laptop using this address.



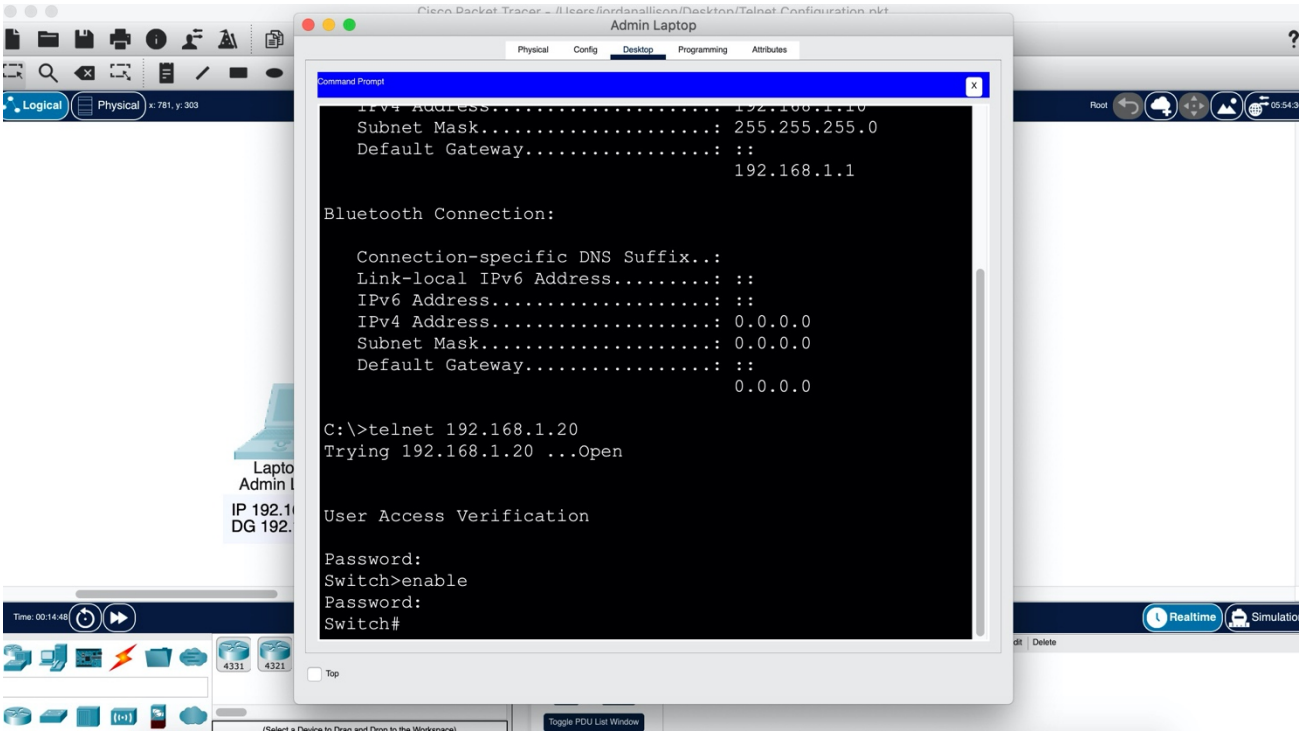

Now configure a Telnet password for remote access. This password will be configured on the Virtual Terminal (VTY). Before you can manage the switch remotely via Telnet, you will have to provide this password.




Telnet access to the switch is allowed through VTY lines. We can establish up to 16 telnet connections to the switch at the same time. This is what the 0 15 means. Meanwhile in the above example, I have set the password to be Cyber.

### 2.3 Test the Telnet Connectivity

Go to command prompt of the laptop and type telnet 192.168.1.20. This is the VLAN address of the switch through which we can access it remotely.




Now provide the Telnet password that you set previously. Mine is Cyber. The password characters do not show up on the screen as you type them, but just type the password, and then hit enter.

After you have been authenticated, you will see the CLI of the remote switch appear. As you can see in the above screenshot, I have typed enable, and it then asks for a password. This password is the first one we set on the switch (in this case, the password is admin). This allows you to enter the privileged executive mode of the switch. You can now configure the switch remotely.

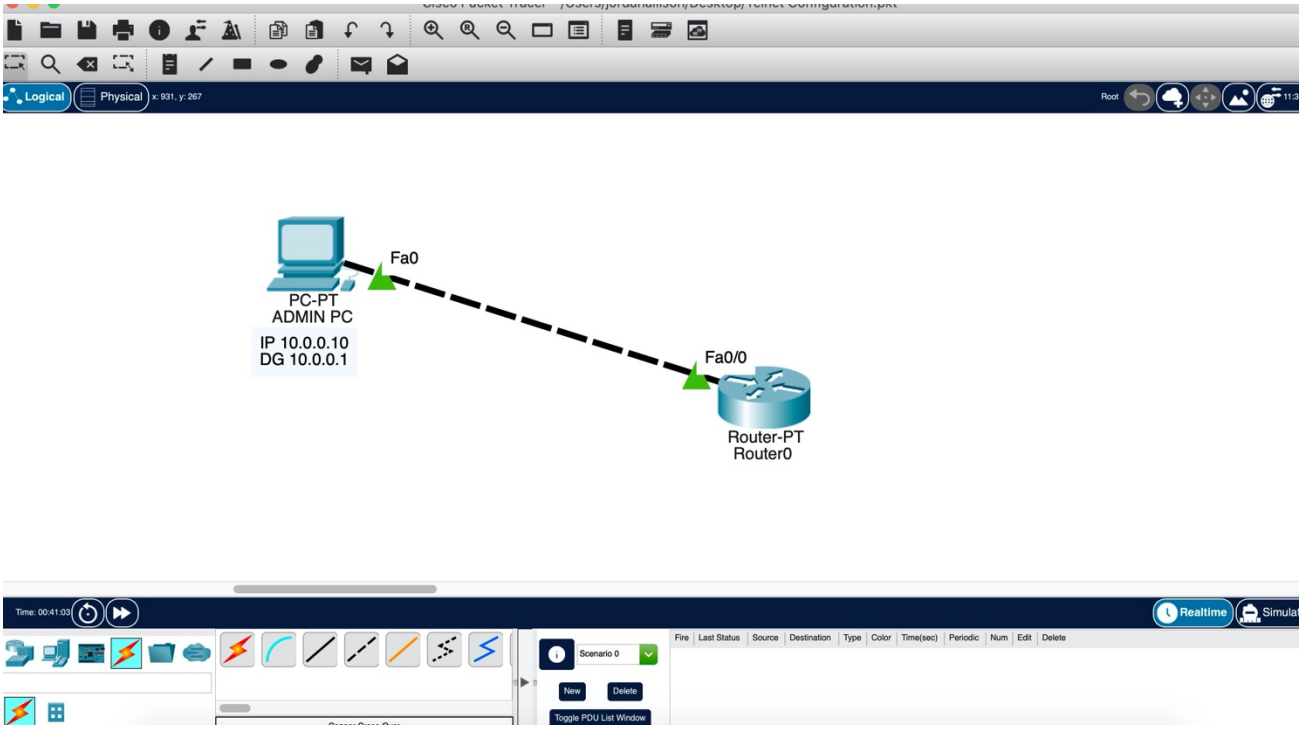
Note that Telnet and enable passwords are different. Enable password authenticates you into privileged executive mode of the terminal device (the switch), but you are using the Telnet password to allow you access the interface of the remote device after connecting to it.

## 3 Telnet Configuration on a Router

Telnet configuration on a router is similar to that of a switch, but with some minor changes.

## 3.1 Setting Up Devices

Set up the following devices:

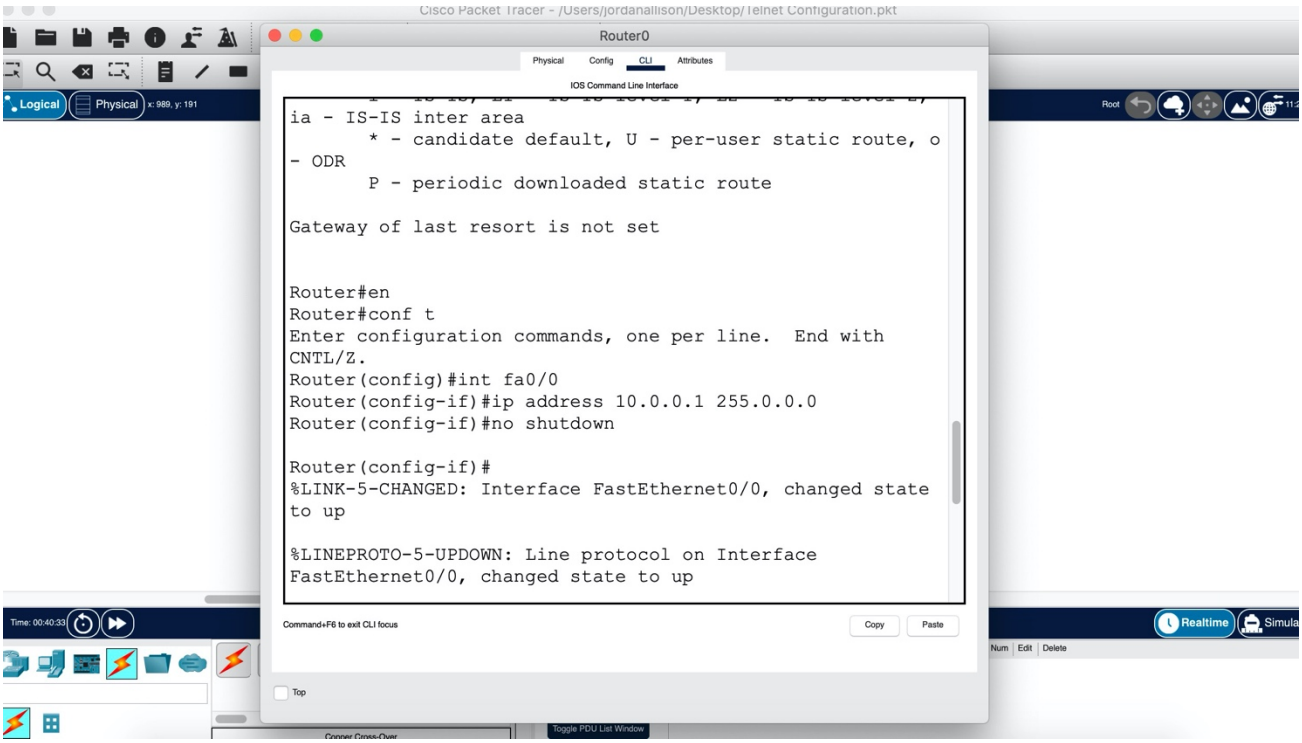




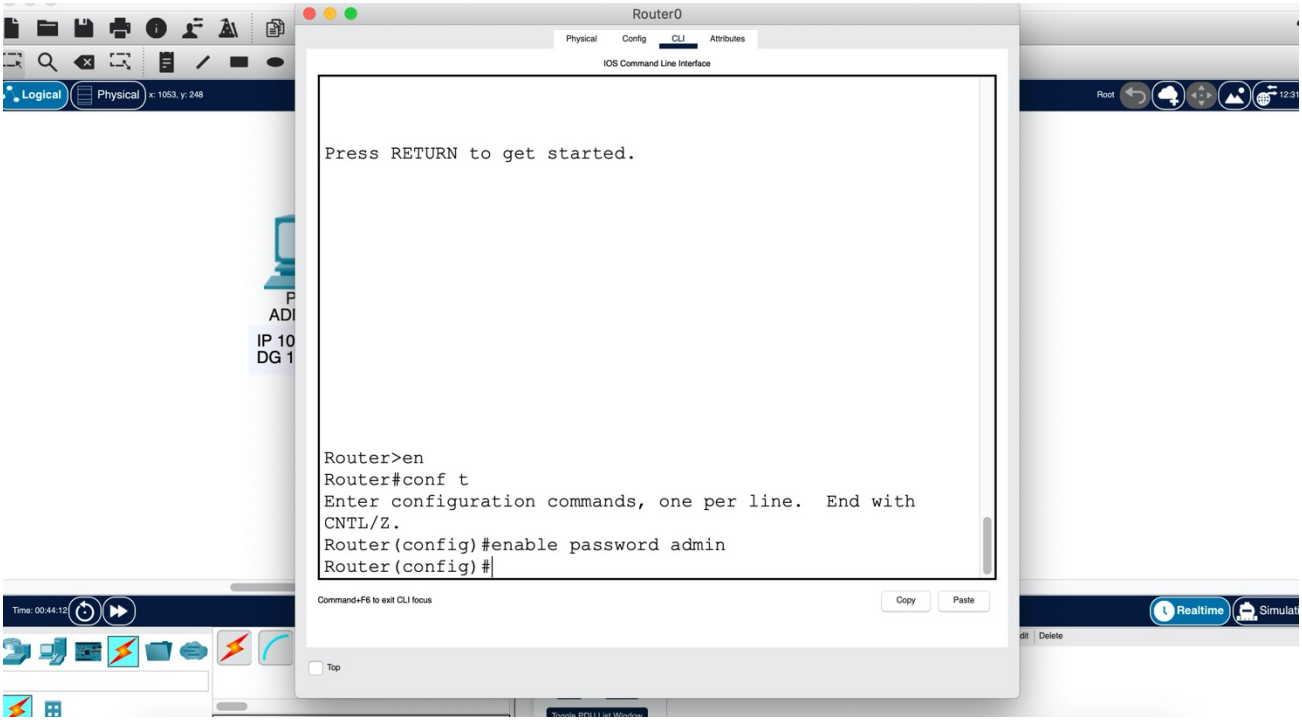


## 3.2 Router Configuration

Remember we need to configure the router interface as below if you have not already done so:

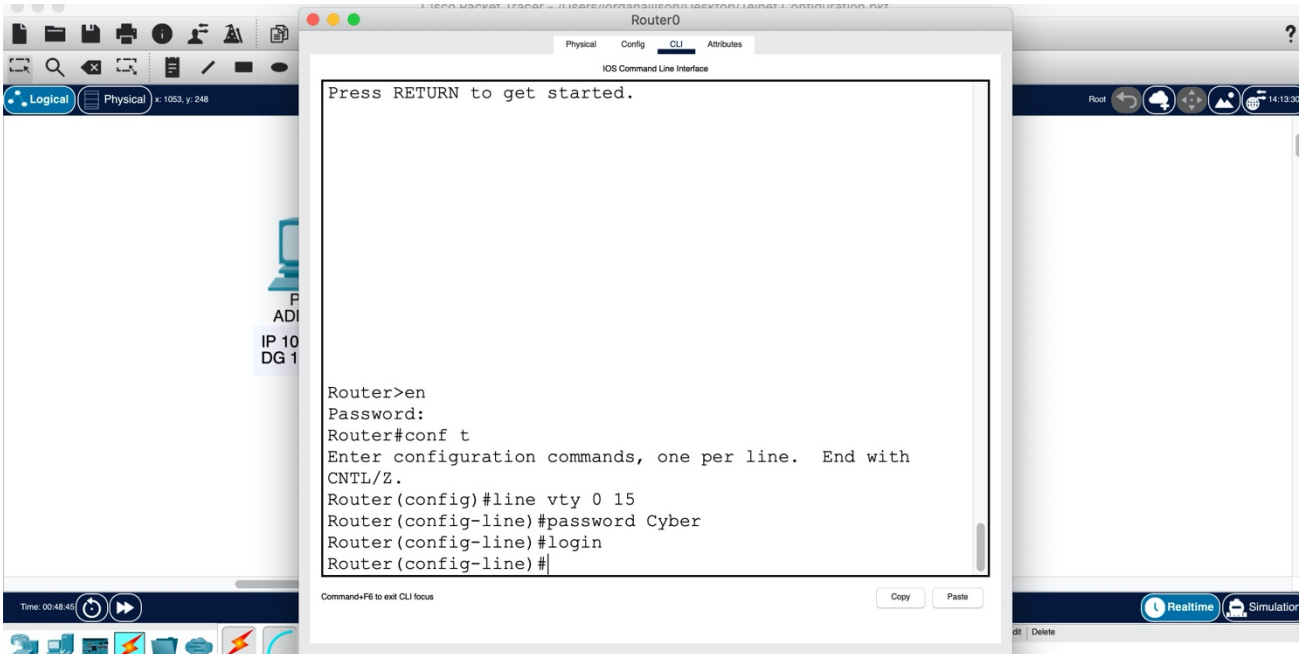


Now configure enable password on the router. If you do not do this, then you will not get past the executive mode of the router even after you establish a telnet connection to the router.



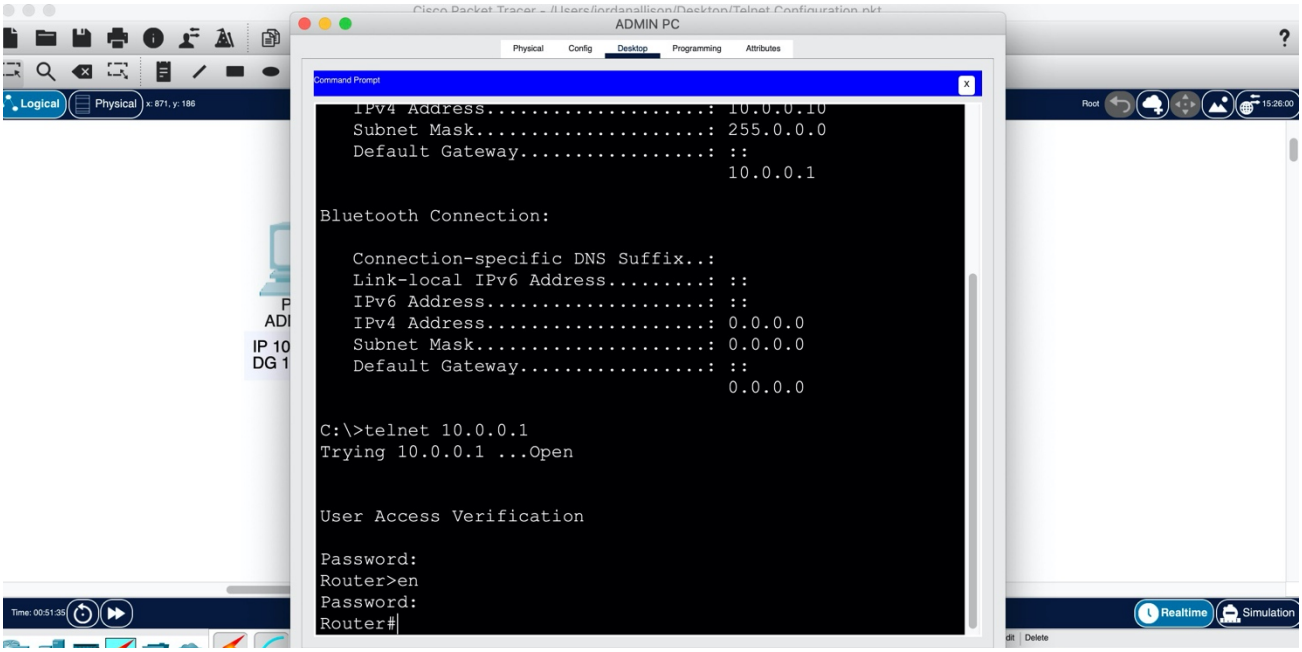

This time we have not configured a VLAN interface with an IP address. We already have an interface fa0/0 of the router with an IP address through which we can Telnet the router from the PC.

Now configure a Telnet password for remote access. This password will be configured on the Virtual Terminal (VTY). Before you can manage the router remotely via Telnet, you will have to provide this password.



### 3.3 Test the Telnet Connectivity

We can now telnet the router using the IP address of fa0/0 interface. So, in the command prompt of the admin PC type telnet 10.0.0.1.




Now provide the Telnet password that you set previously. Once again, mine is Cyber. The password characters do not show up on the screen as you type them, but just type the password, and then hit enter. After you have been authenticated, you will see the CLI of the remote router appear. As you can see in the above screenshot, I have typed en (short for enable), and it then asks for a password. This password is the first one we set on the router (in this case, the password is admin). This allows you to enter the privileged executive mode of the router. You can now configure the router remotely. For instance, such as changing the hostname of the router as below.