Telnet Lab Exercise

Overview

This labtainer exercise illustrates the use of a telnet client to access resources on a server. It is a simple lab intended to illustrate basic client server networking and the transmission of plaintext passwords over a network by telnet.

Performing the lab

The lab is started from the labtainer working directory on your Linux host, e.g., a Linux VM. From there, issue the command:

```
labtainer telnetlab
```

The resulting virtual terminals include one connected to a client computer, and a terminal connected to a server.

Tasks

1. **Determine the server IP address**
In the server window, type "`ifconfig`" to view the IP address of the server. The server IP address will follow the "`inet adddr:`" label.

2. **Telnet to telnet server and display a file on the server**
On the client computer, use the telnet command to access the server using its IP address:

```
telnet <IP>
```

You will be prompted for a user ID and then a password. Both of them are "`ubuntu`"

There is a pre-created file on the server named "`filetoview.txt`".

View the file content by typing:
```
cat filetoview.txt
```

Exit the telnet session on the client via the "`exit`" command.

3. **View plaintext passwords.**
On the server, start tcpdump to display TCP network traffic with this command:
```
sudo tcpdump –i eth0 –X tcp
```

On the client start a telnet session, but when prompted for the password type "`mydoghasfleas`" (as you know this password is incorrect). As you type each letter of the password, observe the tcpdump of the traffic. Keeping in mind that every other packet is an "`ack`", do you see the password. What do you notice?

4. **Use SSH to protect communications with the server**
From the client computer, use the SSH command to access the server using its IP address:

        ssh <IP>

The first time you SSH to a server, SSH will warn you that the "`authenticity of the host…`
`can't be established`". Type "`yes`" at the prompt.

View the file content by typing:

        cat filetoview.txt

Observe the tcpdump output and note that there is no readable plain text.

Stop the Labtainer

When the lab is completed, or you'd like to stop working for a while, run:

        stoplab telnetlab

from the host labtainer working directory. You can always restart the labtainer and continue your work where you left off. When the Labtainer is stopped, a zip file is created and saved to a location displayed beneath the stoplab. When you are finished, send that file to your instructor.