Homework Number: 8

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ECN Login: wu1795

Due Date: 3/21/24

A screenshot of a computer

Description automatically generated

Figure 1: Snapshot of port 1716 communication and the 100 syn packets flooding the port

The block of grey in the middle of the snapshot that is highlighted is the communication between my computer and port 1716 of the moonshine network.

A screen shot of a computer

Description automatically generated

Figure 2: Snapshot of port 3128 communication and the 100 syn packets flooding the port

The block of grey in the middle of the snapshot that is highlighted is the communication between my computer and port 3128 of the moonshine network.

In my code, for scanTarget, I first initialized a list to contain the port numbers referencing the ports that are open. I then test each port between the rangeStart and rangeEnd values, create a socket for each port to send packets through, and set the timeout for the socket to 0.1. I then try to connect to the port, if successful, add the port number to the open list. If unsuccessful, pass and continue onto the next port. To confirm which ports are open, I print the port numbers to the terminal if there are ports open, and “No open ports in specified range” if there are no open ports in the range. I then write the open ports to the output file. For attackTarget, I use scapy to create a IP header, TCP header, and a packet specified for the open port. From there, I send the packets to the open port, return 0 if there is an exception and 1 if there isn’t an exception and the DoS attack goes through.