

First Principles: Data Hiding, Modularity, Abstraction

1. Time: 9-11
2. Lecture: Intro to Networking (Continued from previous afternoon)
 - a. Review of Networking Equipment
 - b. Server Software vs Server Hardware
 - i. Ports
 - c. TCP/IP model
 - d. Application layer: HTTP
 - i. Inspecting HTTP traffic with Burp
 - e. Transport layer: TCP
 - i. Opening a connection (3-way handshake)
 - ii. Closing a connection (Fin flag)
 - f. Inspecting Traffic with Wireshark
3. Activities
 - a. Activity: Use Netcat to send data to a partner where one runs netcat in server mode and another runs netcat in client mode
 - b. Activity: Use Wireshark to sniff netcat traffic from activity A
 - i. Identify the three-way handshake
 - ii. Identify the data being sent
 - c. Activity: Use Netcat to make an HTTP request by hand (GET / HTTP/1.1)
 - d. Activity: Sniff the Wireshark traffic from curl
 - i. Identify the port
 - ii. Identify the HTTP data being sent back