CSSE 341 -- Network Security

Rose-Hulman Institute of Technology

Lab 05: Libpcap Ping

Learning Objectives

At the end of this lab, you should be able to:

- Inject an ICMP Echo response packet into an existing packet stream.
- Debug network code using `tcpdump`.

Name: _____

Question	Points	Score
Question 1	5	
Question 2	5	
Question 3	10	
Question 4	5	
Question 5	5	
Question 6	0	
Total:	30	

Question 1. (5 points) Grab a packet capture from `hostA` and examine it using `tshark` or `Wireshark`. You will see that `hostA` should have received your reply packet but it dropped it. If not, then your sending code is not correct!

Examine the packet and its headers, why did `hostA` drop the packet? *Hint*: `Wireshark` will highlight the problem for you, you can't miss it!

Question 2. (5 points) What is the use of the field that caused the problem?

Question 3. (10 points) By reading through the RFC for ICMP and the implementation of the `chksum` function, describe the implementation of `chksum`.

Question 4. (5 points) In your own words, please write a quick summary of what you have learned in this lab.

Question 5. (5 points) How much time did it take you to complete this lab?

Question 6. Do you have any feedback about this lab? (If you'd like to leave an anonymous feedback, feel free to detach this page and slide it under my door).