

ECE 1545 – Winter 2008
Homework 1: Traffic Analysis with Ethereal

Instructions:

- In this homework, you work with the protocol analyzer *Ethereal*. A protocol analyzer copies all incoming and outgoing traffic of a network interface cards, parses each packet, and displays the packets in human readable form.
- This homework assumes that you have a computer where you have administrator/root access (that is, you own a laptop or PC). You must install Ethereal on your computer and complete the homework with data captured by your computer. For this, you must download and install Ethereal yourself (which is pretty straightforward.). Ethereal can be installed on most operating systems (Windows, MacOS, Linux) Installation instructions for Ethereal are available from **www.ethereal.com**.
- You may complete this lab in groups of two (no groups of three or more). Each group submits one lab report, and all group members receive the same grade.

Tasks:

- **Setup:**
 - The instructions for the lab exercises can be downloaded from <http://www-net.cs.umass.edu/ethereal-labs/>
 - **You need complete the following sections:**
 - [Ethernet and ARP](#)
 - [ICMP](#)
 - [IP](#)
 - [HTTP](#)
 - The following additional section contains useful information:
 - [Getting started](#)
 - Download the PDF files for these sections.
- **Running the lab:**
 - Complete the lab experiments, following the instructions in the above sections.
 - The lab makes references to the Kurose/Ross (3rd edition) textbook. Alternative sources of information will be posted on the website.
- **After the lab:**
 - Write a lab report that answers the questions in the above sections. *It is important that the answers can be matched with the questions. You lose marks when the graders cannot identify which question is being answered.*
 - Submit a hard copy of the lab report by the deadline.