

COMPUTER SCIENCE AND ENGINEERING

Indian Institute of Technology, Palakkad

CS4150: Computer Networks Lab Lab 10 (Raw Socket Programming)

21 Oct, 2020

Time: 60 hrs

1. You are given the virtual network in Fig. 1. This network has two subnets, and one node common to both these subnets. Your first exercise is to write a simple packet sniffer at node

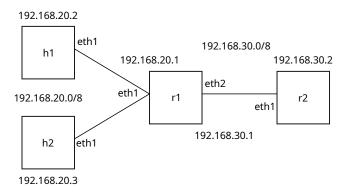


Figure 1: A network with 2 subnets.

- r1. This packet sniffer should print the MAC addresses (source and destination), IP addresses (source and destination) of all IP packets sent and received by r1. Refer https://www.binarytides.com/raw-sockets-c-code-linux/ and http://squidarth.com/networking/systems/rc/2018/05/28/using-raw-sockets.html
- [50]
- 2. Modify the packet sniffer in the previous exercise to print the MAC addresses (source and destination), IP addresses (source and destination) of only those IP packets that are received by **r1** on interface *eth1*.
- [20]
- 3. Enhance the program created in the previous exercise so that you transfer IP packets across the subnets in Fig. 1. Infact, you will essentially be building a rudimentary router. Some hints can be found at https://opensourceforu.com/2015/03/a-guide-to-using-raw-sockets/

[30]