CS348 Computer Networks
Lab Excercises 6

Indian Institute of Technology, Patna
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Instructions: You have to upload the code along with the outputs for this assignment in a tar file using the lab submission website on or before 05.04.2018. The file name should be assign6.tgz.

1. Write a python code in Mininet to create a topology as shown in the figure. R_i(i ranges from 1 to 4), S_j(j ranges from 1 to 2) and H_k (k ranges from 1 to 7) represents routers, switches and hosts respectively. The topology details are as follows:

   - The routers are, R_1 represents subnet 10.0.1.0/24, R_2 represents subnet 10.0.2.0/24, R_3 represents subnet 10.0.3.0/24 and R_4 represents subnet 10.0.4.0/24).
   - The hosts should be given IP address according to the subnets they belong to.
   - The routers will make routing decision based on a fixed routing table that you can define in a text file. The routing table has entries that includes Destination IP, Next hop, Netmask and Interface.

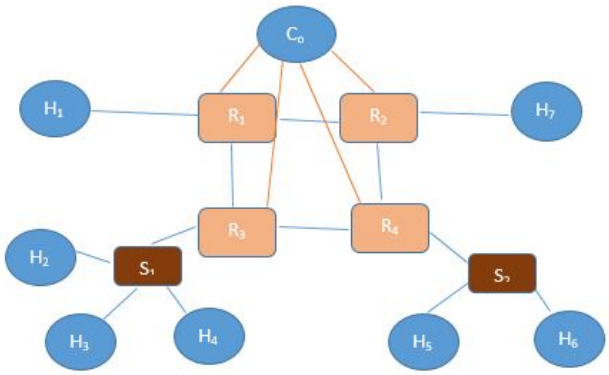

Figure 1: A Topology

For the output, it should be able to ping the routers and all the hosts from any other host and traceroute a host from any other host.