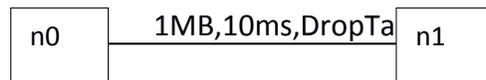


CS634 SIMULATION LAB**Objective of the Course:**

The Simulation Lab has been developed to impart state-of-the-art knowledge on advanced topics in Computer Networks in an interactive manner through the Web, It Introduces the concept of network simulation to the students, Involve students in analytical studies of Computer Networks through network simulation.

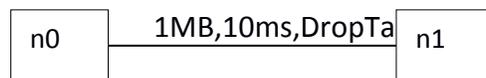
List of Experiments

1. Installation of NS-2 or NS-3.
2. Write a TCL script for computing the arithmetic operations on two operands
3. Write a TCL Script for finding the given number is prime or not using functions
4. Write a TCL Script for finding the factorial value of a given number
5. Create a TCL Script for the following network.



Create a CBR traffic over UDP. Find out the throughput using GREP commands

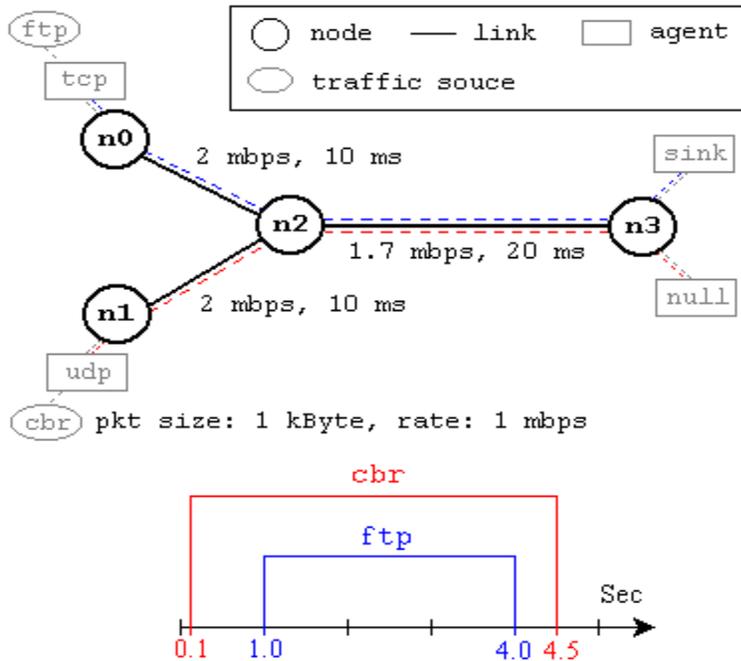
6. Create a TCL Script for the following network.



Create a FTP traffic over TCP. Find the throughput and compare the performance CBR traffic over UDP,FTP traffic over TCP.

7. Create a TCL Script for the network which consists of three nodes namely 0,1 and 2. Establish a TCP connection between node 0 and node2 such that node0 will send a TCP packets to node2 via node1.

8. Write a TCL Script for the following Network



9. Write a TCL Script for the following description of network. Create 5 nodes and connect the nodes 0,1,2 with node 3 and connect the node 3 to node 4. Here all the connections contains 1MB,10ms and DropTail. Now calculate how many bytes received by traffic sinks and the bandwidth.

10. Write a TCL Script for running wireless simulation with two nodes.

11. Write a TCL Script for the following description of network. Consider a typical manet with four mobile nodes 1,2,3 and 4. All the nodes need to act as routers where any node can transmit packets to other nodes if they are in communication range. Node1 is sending packet to node3 via node 2. After sometime node2 starts moving away and not in the communication range of node1. So the route breaks between node1 and node 2. In the mean time node4 comes in the communication range of node1 and a new route 1-4-3 is created and transmission of packet begins from node1 to node3 via node 4.

TEXT BOOKS :

1. Computer Networks, *Andrew S Tanenbum*, 5th edition
2. Handbook of Wireless Networks and Mobile Computing, *Ivan Stojmenovic*, John Wiley & Sons, Inc., 2002
3. Introduction to Network Simulator NS2, *Teerawat Issari Yakul, Ekram Hossain*, Spinger, 2nd Edition.

