

## Experiment 02 - Basics of ns2

### 1. Create the following scenario with two nodes n0 and n1 and link in between.

- Sender Agent : Agent / UDP
- Receiver Agent : Agent / Null
- Connect Agents
- Data Source : Application / Traffic/ CBR
- Run from 0.5sec to 4.5 sec, finish at 5.0sec

### 2. Create the scenario and connect the appropriate agents.

- Start the FTP application at t = 0.5 sec
- Start the CBR data source at t = 1 sec
- Terminate both at t = 4.5 sec
- Visualize the bottleneck queue

### 3. Write a TCL script to simulate the file transfer using NS2.

Consider a client and server. The server is running an FTP application(over TCP).The client sends the request to download a file of size 10 MB from the server. Write a script to simulate this scenario. Let node 0 be the server and node 1 be the client. TCP packet size is 1500 B . Assume typical values for other parameters.

### 4. Write a TCL script to simulate the network described below using NS2.

Consider the small network with five nodes n0, n1, n2, n3, n4, forming a star topology. The node n4 is at the center. Node n0 is the TCP source, which transmits packets to node n3 through the node n4. Node n1 is another traffic source and sends UDP packets to node n2 through node n4 . The duration of the simulation time is 10 seconds.