Indian Institute of Information Technology, Allahabad

ELECTRONICS AND COMMUNICATION ENGINEERING DEPARTMENT

Course Name: Wireless Communication

EXPERIMENT NO: 2

Objective: To Study Star and Bus topology and compare their throughputs.

Materials/ Component Required :

Network Simulator (NetSim)

Procedure for Scenario-1 (Star Topology):

1. New → Select Internetwork
2. Select the six wired nodes from the top menu and drop it on the workspace.
3. Also place a switch to act as a central entity to which all the nodes are connected.
4. Use wired link from the link menu to interconnect the nodes with the switch and set the source and destination pairs in application box.
5. Select application type as custom.
6. For the nodes, in transport layer disable TCP option.
7. For the link properties set the uplink and downlink speed as 100 Mbps and makes the BER to be 0.
8. Run the simulation and save the file.

Procedure for Scenario-2 (Bus Topology):

1. New → Select Legacy Networks → Token Bus
2. Select the six wired nodes from the top menu and drop it on the workspace.
3. Also place a Hub for connecting the nodes.
4. Use wired link from the link menu to interconnect the nodes with the hub and set the source and destination pairs in application box.
5. For the nodes, in transport layer disable TCP option.
6. Set the BER to be 0.
7. Run the simulation and save the file.

Compare the above two scenarios.

Result: By using NetSim, we have obtained the throughput for the Star and Bus topology.