Abstract

Simevent proved to be efficient and flexible tool in the design and simulation of computer networks. Ethernet Network Interface Card (NIC) includes Logical Link Controller (LLC), Medium Access Controller (MAC) and physical layer. It is designed using simevent tools (blocks), the units of the NIC can be modified and adjusted separately, and as a matter of check, a network of Ethernet type using simevent blocks is designed based on the proposed NIC then its performance is compared with a similar Ethernet (based on OPNET software), the similarity of the two networks is proved through the simulation results of throughput and delay performances. It is possible to conclude that simulation with simevent tools push the design of network to behave like actual networks and as a consequence there is a possibility to modify the parameters of the different protocols easily.

References

Design and Validation of Ethernet Network Interface Card using Simevents Technique

- “Ethernet Local Area Network”; MATLAB Information Center available on: www.mathworks.com/trademarks.

**Index Terms**

Computer Science  
Networks

**Keywords**

Simevent tools  OPNET  Ethernet  MAC  Sub Layer  NIC