Abstract

The distributed computing approach has the several advantages over the old centralized computing approach like reduction of execution time and low cost involvement. Many researchers have applied the modeling concepts for the distributed computing system. The most popular approach is the object-oriented modeling also known as Unified Modeling Language (UML) approach which is a platform independent to any programming language. In the present work, Unified Modeling Language (UML) is used for the various aspects used in the distributed computing system. This paper consists of the modeling of newly developed step topology and compared with the bus topology under distributed computing system. UML activity diagrams are designed for these topologies and the diameters of bus and step topology are also computed by varying the nodes through hop count and represented in the form of table and graph.

References

- Frouzen, B. A., "Data Communications and Networks", Tata McGraw Hill,
Modeling Aspects for Step and Bus Topologies under Distributed Computing System

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**Index Terms**

Computer Science  
Information Systems

**Keywords**

Distributed computing system  
UML  
Activity diagram  
Step topology  
Diameter