A Comparatively Analysis and Performance of Logical Topologies of Embedded Hypercube (LTOEH) Interconnection Network

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 132
Number 9

Year of Publication: 2015

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10.5120/ijca2015907535

Abstract

This paper is considered an important issue in the design of PE-Interconnection networks for massively parallel computing scalability. A detailed analysis shows that the double loop hypercube DLH (m,d) network is compared with mesh and torus embedded hypercube, torus embedded hypercube a better interconnection network in the properties of small diameter and highly connectivity, simple routing, scalability, constant node degree of topology, and the performance of communication. Show how to design the good interconnection network in parallel Architecture for less density as well as diameter to route the data to different path. Also it has been proved with the computational results of entire system that the embedded hypercube interconnection networks build is highly scale up in terms of communication. A complete design analysis and comparison of network with various other networks is given using different network parameters optimal of torus architecture rather than mesh architecture.

References

Index Terms

Computer Science
Embedded Systems
Keywords

Hypercube network, Topology, DLH, Data routing path, Embedded network, Network parameters and Scalability, Network metrics.