



An Analytical Study on Interconnection Network

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Abstract: *Interconnected networks are extremely important aspects of data communication. It is used to transport data between processing units of networks and memory units. It uses a series of interconnected devices to transfer the data using parallel processing. Parallel processing occurs when one process or operation is completed using multiple processors (i.e., multiple computers) independently of each other. This is done to reduce the time required for the operation, as well as to reduce the strain of the operation on one computer. The main parts of an interconnected network are called nodes: memory, processor, and switches, which turn the connections between the memory unit and processor on and off. There are many benefits to using an interconnected network, including an increased speed of data processing. One of the most frequently used examples of an interconnected network is a system of connected computers. Interconnected networks can use one of a number of topologies. The two major types of interconnected networks are static networks and dynamic networks. There are two main types of static networks (completely connected and limited connection), and many different types of dynamic networks, including bus, crossbar, and multistage. Static networks have constantly fixed connections between memory units and processors, whereas dynamic networks have switches that turn off these connections. Completely connected networks are most useful when speed is important, and the cost of data processing is not. Limited connection networks do not have a constant connection between nodes, so messages between the nodes must be efficiently routed.*

Keywords: Interconnected networks

REFERENCES

- [1]. Research Paper A Comparative Study of Interconnection Network by Mahfouz Alam Aligarh Muslim University
- [2]. Article on Multistage Interconnection Networks by José Duato
- [3]. Interconnection Network Design by tutorial point
- [4]. Different website