

ABSTRACT

Asynchronous Transfer Mode (ATM) which based on B-ISDN, are the network that can guaranteed high speed data transfer for multimedia applications. This matter because of ATM have the preminent switching system comparing with other system. With small packet size (53byte), high speed switching is possible.

Banyan architecture represents most popular and a lot of used by vendor in their switch design because of Banyan very economic, modular structure, and routing in Banyan very simple and self-routing. But in Banyan can occur internal blocking that causing performance degradation. To solve this problem, technique like using sorter network, batcher banyan, or alternate routing are developed.

This final project analyzes the performance of Load Sharing Banyan architecture. In this technique, every incoming cell at input port of a switching element (SE) will be transfer to empty output port, whether at the SE or at its neighbor. This is to avoid the excessive burden causing internal blocking. But there is consequence at this technique that is the increasing of time required for transfer the cell to target.

Key words : ATM, ATM Switching, Load Sharing Banyan