ABSTRACT

Development on multimedia services causes telecommunication network needs acomodation capability to solve services capacity problems. It appears paradigm called Asynchronous Transfer Mode (ATM), making possibly for voice, data, and pictures have same network. Its background is there is willing to use transmission technique and facility with services have wide bandwidth

According to development in multiplex technology, there's Photonic Switch concept. It's used as implementation in using switching technique to acomodate over load with high transmission capability.But, there's still problems like contention that happened when there are many inputs have same destination. This system uses buffer to solve it, called by WDM Optical Buffer. This final project makes it integrates with ATM that probably can solve contention problems.

After that, it will be analyzed that include on performance parametre in ATM because this system integrated with ATM system. Parametre that shown are Cell Loss Rate and Mean Cell Delay. Actually, there is other parametre, but in this final project just shown about loss and delay. In both of them used as comparison parametre between before and after system in integration. Loss and delay that result based on using in buffer and number of input. More on buffer can minimalize in loss and delay on both of the system but not maximize caused by many parametres define it. But, in this integration system has loss and delay which is more stabilize. And also, this system is still reliable in delay caused by fiber dispersion.