

Abstract

The development of technology gives effect on multimedia application development. The focus of this project is to use *Beowulf Cluster* to *convert* video file using FFMPEG. Parallel processing methods that used in *Beowulf Cluster* are Message Passing Interface (MPI) and Threads. In MPI methods, every nodes in *Beowulf Cluster* communicate each other by sending and receiving message that are handled by LAM/MPI as a middleware software for MPI application, in Threads method, every nodes communicate each other by socket over TCP/IP. From this experiment, *Beowulf Cluster* that communicate by MPI have faster *response time* than it communicate by Threads. MPI have *response time* faster when we added the number of slave nodes. Slave nodes configuration in one subnetwork have faster *response time* than slave nodes is configured in two subnetwork.

Keywords: *Beowulf Cluster, MPI, threads, video converting, FFMPEG*