

## ABSTRACT

Grid computing is a technology that utilizes a distributed computing resources which connected through a computer network independently but coordinated with a specific mechanism . By providing resources that can be used together to facilitate access and improve Quality of Service . Grid computing infrastructure development is not easy because it requires the ability and experience in the installation and configuration of Linux-based program . The final goal of this study , the authors build a Grid computing infrastructure based on the *cluster* that will serve as a back -end resource by using Globus toolkit as midlleware allocation of resources. This study uses the University of Telkom's local network .

**Keyword:** *grid computing, globus toolkit, cluster*