

## ABSTRACT

Computer network mapping is one of network administrator's task in computer network management. The map of computer network produced can be used as reference for computer network management process.

In order to prevent of decreasing availability of computer network, caused by the mapping process that consume network bandwidth, implementation of Java mobile agent application is used. This small application therefore can save network bandwidth and can operate efficiently through Internet or Intranet network.

On this Final Project, mobile agent application for network mapping has created, called "Mapping", was developed using JDK (Java Development Kit) and ASDK (Aglets Software Development Kit) software. While Aglet Viewer Tahiti, that also acts as aglet server, is used to operate the Mapping. Thus, this application will be tested based on *availability*, *network traffic (bandwidth)*, and asynchronous execution. Next there is comparative analysis between another network mapping application without using mobile agent technology and with using mobile agent.

Based on the implementastion and analysis, it is concluded that Mapping Application with mobile agent is applicable, accurate, autonomous, running properly to complete it's task without decreasing network traffic, even can still running while disconnected (asynchronous).

Keyword : bandwidth, availability, host, mapping, server, JDK, ASDK, aglet, autonomous, agent, mobile agent