

ABSTRACT

To manage how many APIs or servers in an agency, a system is required for managing APIs to connect with clients or consumers without the need to think about infrastructure and make data accessing easier.

Therefore, it takes a system that can manage or control the API that exist in a system. API Gateway is a system used as a controller on an existing API on a server. API Gateway can manage the API so that API can be distributed more optimally.

In this final project, API Gateway will be implemented and analyzed with cloud gateway-based cloud computing system using Platform as a Service (PaaS). From the results of research, it has been known that the performance of API Gateway system is better on the Intranet network that is compared with the Internet network, because there are several factors that affect the test results of the Internet network which is the topology that exists on the network and transmission speed that had been used. Based on the results of tests, the average value of some parameters are: response time 5.17 sec, data transaction 4288 hit, data transferred 351 MB and availability 100%.

Keywords : *Cloud Computing, API gateway, Server,PaaS*