

ABSTRACT

Faculty of Applied Science's network laboratory in Telkom University does not have sufficient resources to supervise the capacity of computer networks. This facility requires substantial space and funds to procure personal computer as the hardware for the capacity of network devices testing. Raspberry Pi is an open source Single Circuit Board (SBC). By utilizing grid computing technology can maximize network capacity testing facility of computers that will be manufactured.

Network capacity on devices will be tested using traffic generator tools that is iperf. The network capacity testing facility by using Raspberry Pi, grid computing, iperf, and CACTI can be procured without requiring large amount of space and funds.

The facility that will be procured is capable of bandwidth testing using TCP and UDP port. This facility can also monitor Raspberry Pi grid and devices that are tested, and can generate reports in form of Microsoft excel file. Of keeping the testing that has been done can be seen the maximum bandwidth available at 95.7Mb / sec. Monitoring grid Raspberry Pi and the device was tested using Cacti can be seen from the graph that is displayed by Cacti.

Keywords: Grid, Raspberry Pi, Traffic.