ABSTRACT

The development of mini computers which is getting better makes it much more desirable to be developed as an alternative Desktop PC in the computer network environment. One mini computers that are widely used today is the Raspberry Pi. Raspberry Pi is able to do all the work that can be performed by the PC Desktop. Of course, the capacity and specifications owned by Raspberry Pi is smaller than a desktop PC. To increase the capacity and performance of the Raspberry Pi, can be achieved by a computer grid. By using the Raspberry Pi computer methods coupled with the grid, resulting a computing system that is capable to be configured and monitored centrally. Users can also perform administrative processes centrally. Puppet is a core application of this computing systems and allows the administrative process to be centralized is possible. The implementation of monitoring feature using application called Cacti so that the devices condition in this computing systems can be monitored. The end result of this research is a computing system prototype that can be used as an alternative to the network testing equipment.

Keywords: Raspberry Pi, Configuration Management, Network Monitoring Service, Puppet, SNMP, Cacti.