Abstract

Before a system is used in a massive environment, performance testing needs to be done to verified whether the system has been feasible to implement and can be used by the users. For a single sign-on system where the authentication process of a group of web applications is handled by a single server, performance becomes a critical issue because the server will be responsible for the system performance. Performance testing, in general, can be testes by using performance testing tools. But for the single sign on system testing, the tools used to act as a real user and can follow multiple-redirection to complete the authentication process. Before the performance testing can be done, the test plan should be defined. In this final project, the author conducted performance testing design and then implement the testing design for system that use single sign on Central Authentication Service (CAS) as its authentication platform. In this performance testing, Apache JMeter used as the tool which acts as a virtual user and records the value of response time, throughput, error rate, CPU load, memory load as the test parameters. The results of this final project is CAS Performance Test Plan which contains the configuration parameters as well as a summary of the performance testing system single sign on CAS. Summary results of performance testing are presented in table form and also in the form of a graph depicting the data of each parameter per unit time.

Keywords: performance test, *single sign on,* **cas, Apache JMeter**