ANALYSIS OF IMPLEMENTATION SINGLE SIGN ON SYSTEM ON THE LEARNING MANAGEMENT SYSTEM AND INTERNET PROTOCOL TELEVISION

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ABSTRACT

Central Authentication Service (CAS) is a kind of method of single sign on, whose purpose to give permission for users to access multiple applications at once without having to login repeatedly. Single sign on technologies necessary to integrate Internet Protocol Television (IPTV) within scope of web based Learning Management System based on moodle. Central Authentication Service architecture on this final project in the structure utilizing Lightweight Directory Access Protocol (LDAP) as a database. CAS server will generate a Service Ticket (ST) to be used by users to access other applications without having login.

On this final project will be based on the integration of Learning Management System based on moodle and web based IPTV, by utilizing the CAS and LDAP as central authentication. At the end of this task will be analyzed on the parameters of the load test and the average time required by the authentication server to authenticate the users, with the variation of bandwidth of 64 kbps, 128 kbps, 256 kbps, 512 kbps, 1024 kbps, dan tanpa batasan bandwidth.

From the test result when limited bandwidth of 64 kbps, the CAS server can only handle 10 request the user in the same time, with a bandwidth of 128 kbps 100 user, the bandwidth of 256 kbps 200 users, the bandwidth of 512 kbps 300 users, on 1024 kbps 400 users, and when there is bandwidth of 100 Mbps, CAS server capable to handle 500 users request at the same time. The average response time for all authenticated users on Central Authentication Service (CAS) server, when the bandwidth of 64 kbps the average response time 65,22 ms, at 128 kbps bandwidth amount 35,85 ms, at 256 kbps bandwidth 26,73 ms, at 22,61 ms bandwidth of 512 kbps, 1024 kbps in bandwidth amount 14,8 ms, and when there is bandwidth limitation 100 Mbps amount 8,44987 ms.

Key words: Central Authentication Service (CAS), Lightweight Directory Access Protocol (LDAP), load test
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