Abstract

Since Hypertext Document invented by Tim Barners-Lee and Robert Cailliau (November 12th 1990), web has been evolving incrementally in a sense of technology and number of users. As the main component that serves the web, web server has a certain load limit to its concurrent connection. In order to avoid overhead because of increasing internet users, web server software efficiency in handling concurrent connection has become a main concern. One of the solutions is by using web server software that implements event-driven programming and asynchronous I/O.

Research Method used are literature study, analysis and systen design, implementation, testing and result analysis. Paper, journal and references are used in literature study. Analysis and system design have main purpose to produce test scenario of event-driven programming and asynchronous I/O implementation. Result analysis is created afterwards using throughput, request rate, latency, and standar deviation as test parameters.

The hypothesis in this research is that overhead can be supressed by using event-driven programming and asynchronous I/O implemented web server.

Keywords: *web server software, overhead, event-driven programming, asynchronous I/O, concurrent connection, throughput, request rate, latency*