

ABSTRACT

The main objective of this study is to develop a Generalised System-Level Model at a system-level point of view of Web server performance for UUM Web Portal. A system-level performance model views the system being modeled as a “black box” which only the arrival rate and service time is considered. It is important in order to measure Web server performance metrics such as server utilization, average server throughput, average number of packet in the server and average response time. This study refers to infinite population and finite queue. It is suitable model because it is easy to define and fast to interpret the results but still represents the real situation. In addition, the complex problem is easily to understand. The developed model can increase the knowledge and understanding about the importance of system-level in Web server performance. It also offers a basic result for Web server assessment in details. Finally, it can assist the management in making decision about system performance to enhance the server system at UUM Computer Center as well.