Assessment of the Performance for E-Commerce Architecture vis-à-vis Advance Queuing Topology Algorithm (AQTA)

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Abstract

In this paper, we describe the formatting guidelines for IJCA Journal Submission. Impulsive stresses posed by unanticipated drifts of requests from users on Internet have made it exceptionally perplexing for E-Commerce to offer projected enactment of the architecture. In order to provide stable service, it is important for electronic commerce architecture to recognize the performances in terms of response time for requests, delay in accessing the services offered by servers implemented in E-Commerce architecture, and the number of requests waiting in the queue and thereby identifying the strategies to service the requests promptly. The correct and swift algorithm can prominently aid to build and operate electronic commerce architecture more proficiently. In this paper, design and implementation of an algorithm named, AQTA is proposed, which uses the queuing models to prioritize the requests from different classes of users. The proposed algorithm takes the requests from clients, and uses three different set of algorithms simultaneously, namely, Classifier Algorithm, Priority Queue Algorithm and Final Queue Algorithm, to improve the performance of architecture. The comprehensive performance of the AQTA Algorithm is depicted using various Queuing models and the results are shown accordingly. The queue models which are implemented using the simulation study include the comparative study of the AQTA models using M/M/n/K and G/G/n/K models.
- Riktesh Srivastava, "Memory Estimation of Internet Server via M/G/1, G/M/1, G/G/1 Queuing Models: A Comparative Perspective", 6th Annual ISOOne World Conference, Emerging Academia and Enterprise Agendas, ISOOne World, Las Vegas, USA, 2007.
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Index Terms

Computer Science Algorithms

Keywords

AQTA Classifier Algorithm Priority Queue Algorithm Final Queue Algorithm

M/M/n/K

G/G/n/K.