



STUDY OF HANDOFF IN A MULTI-SERVICE SYSTEM

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ABSTRACT

Call handling mechanisms can enhance the efficiency of cellular mobile networks. The use of these cellular systems has been a very popular means of enhancing the capacity of the wireless communication networks. It experiences the handoff phenomenon, wherein which a call already in progress in a cell is due to user mobility that hands over (switched) to another cell. The cellular network is a multi-state system that comprises of cells. In this study, the analysis of the Interarrival time, arrival rate, service time, and the theoretical cumulative distribution function (CDF) is compared to the empirical (CDF). New customer arrival and handoff customer were compared to determine which one offers a better quality of service. A similarity to the cellular network is drawn to the Blue café which has a similar arrangement. The café is a multi-service center located in square four at the University of Essex, where there are several counters to offer services to customers. The café gives us a practical model of a cellular system and for the purpose of gathering experimental data for analysis. This result has a good property for modeling of communication networks.

KEYWORDS: Blue Café, Cellular Networks, Cumulative Distribution Function (CDF), Customers' Arrival, Handoff, New Arrival, Service Time

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