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Analysis and Performance of Handover in Universal Mobile Telecommunications System (UMTS) Network Using OPNET Modeller

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Abstract: Handover is of great significance to achieve seamless connectivity in wireless networks. This paper gives an impression of the main factors which are being affected by the soft and the hard handovers techniques. To know and understand the handover process in The Universal Mobile Telecommunications System (UMTS) network, different statistics are calculated. This paper focuses on the quality of service (QoS) of soft and hard handover in UMTS network, which includes the analysis of received power, signal to noise radio, throughput, delay traffic, traffic received, delay, total transmit load, end to end delay and upload response time using OPNET simulator.

Keywords: handover, UMTS, mobility, simulation, OPNET modeler

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