Review of Handover Decision Algorithms in Wireless Communication Networks

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Abstract: *Handover is a process in mobile communications in which a connected cellular call or a data session is transferred from one cell site (base station) to another without disconnecting the session. Cellular services are based on mobility and handover allows the user to be moved from one cell site or another for better network performance. There are many handover decision algorithms presented in literature. Generally, system metrics or network parameters are used as measure to decide whether or not to invoke a handover process. For wireless communication networks, the 3GPP and IEEE usually set minimum threshold level that when satisfied would initiate handover process from serving cell to the target cell. It is left to the system engineers to develop their own algorithms based on the network peculiarities to maintain and enhance the network key performance indicators (KPIs). Toward this direction, this paper is focused on reviewing the handover decision algorithms for wireless communication network highlighting the system metrics used and the area of applications.*

Keywords: UE, 3GPP, IEEE, KPI, Handover

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