Abstract

Handover mechanism is extremely important in cellular network because of the cellular architecture employed to maximize spectrum utilization. Handover is the procedure that transfers an ongoing call from one cell to another as the user’s moves through the coverage area of cellular system. One way to improve the cellular network performance is to use efficient handover prioritization schemes when user is switching between the cells. In this paper I have presented an analytical framework that can enhance considerably the handover call mechanism in wireless network. Some advance schemes namely, guard channels, call admission control and handover queuing are discussed. All these of prioritization schemes have a common characteristic reducing the call dropping probability at the expense of increased call blocking probability. Efficient prioritization scheme accomadetes a number of new calls while guaranates the quality of service (QOS) of hanover call. This idea is based on the neighbouring cells have
an overlapping (the area served by more than one cell) coverage area. Furthermore cell overlap and load balancing scheme is proposed to enhance the GSM cellular capacity using an overlapping coverage area. Capacity enhancement is achieved by balancing the load in neighboring cells.

Reference

Handover management in GSM cellular system

Dissertation, University of York, UK.


Index Terms

Computer Science Communications
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