Abstract

Properly designed handover procedure in cellular wireless systems are essential for maintaining continuity of a call in progress and minimizing the probability of forced termination, signaling and switching load on the network. In this research, the Handover Channel Exchange (HCE) scheme is modeled and analyzed for channels between two mobiles that are moving in opposite directions across the handover area of adjacent cells of a GSM network. The channel exchange method is interesting since it yields low values of handover failure probability as compared to the case with no channel exchange. This work compares the performance of the cellular system with and without channel exchange, using the data obtained from a GSM network, with MATLAB as the platform for the simulation and analysis. The results as presented show improvement in handover failure probability obtained by using the channel
exchange as against that of no channel exchange obtained from the GSM network

References


Index Terms

Computer Science Mobile Communication
Keywords
failure Probability  Handover Channel Exchange  call arrival rate