Abstract

One of the key issues in cellular mobile communication is to find current location of mobile terminals to deliver the service, which is known as location management. Although dynamic location management schemes show better performance but static schemes are more popular due to their simplicity. One such static scheme is reporting center in which some cells are designated as reporting centers. This paper proposes a basic criteria for performing clustering and successive paging in reporting center scheme and also analyzes the cost effectiveness of three different versions of reporting center scheme: Simple, Clustered, and Combination of clustering with successive paging. Simulation results show that the combination of clustering with successive paging outperforms the other two versions independent of call to mobility ratio.
Effects of Clustering and Successive Paging on Reporting Center Scheme: A Cost Analysis


Index Terms

Computer Science

Wireless Communications
Keywords
Cellular mobile network  reporting center  location management  registration  paging  clustering