Abstract

Location management is an essential function in cellular networks that allows the network to maintain the position of subscribers, in terms of location areas. In GSM, the whole network divided into different LAs, which are very useful to find current location as well as mobility pattern of the mobile users. There are various methods, adopted by cellular companies like static and dynamic, to plan better LA in cellular network. LA planning is very important because location management cost, Location Update and Paging Cost, is derived based on that. The work presented in this research concentrates on Dynamic LA planning and Mobility Prediction methods for mobile users. The work carried out focuses on better LA planning for minimum radio bandwidth utilization as well as mobility prediction for providing better services to mobile users. Using this research work Location Management cost will be reduced, better resource allocation and good QoS, without call dropping and blocking, can be provided to the mobile users.

This PhD thesis will be helpful for the researchers in developing adaptive methods for creating better LA planning and mobility prediction for mobile users.

List of Publications:


