Abstract

Since the advancement of current cellular systems and technology is augmented towards 4G(4th Generation) and beyond, the need for efficiency in terms of the Quality of Service (QoS) and reducing the signaling overhead between the mobile node and the various other equipment providing services within the core network becomes critical. Selection of application as per the user preference has much importance in the 4G networks. In 4G networks it is necessary to integrate WLAN (IEEE 802.11) systems with currently existing UMTS, GPRS systems which provide for wider mobility requirements, if the user requires obtaining a substantial amount of bandwidth within a hot-spot province. In this paper, a selection algorithm has been proposed which provides a better way to implement user preferences as per the features of 4G. The proposed algorithm uses a distance function to generate an ordered list of various access technologies called networks in a particular region according to multiple user preferences and level of interest. Further facilitating an optimal choice of AP (Access Point) for the MN (Mobile Node) to link up with, whenever it moves from one APs coverage area to another.
A Novel Algorithm for the Optimal Network Selection Scheme in the User Centric 4G networks


**Index Terms**

Computer Science Wireless Networks

**Keywords**

4G Networks QoS Mobile Node