Abstract

As the growth of mobile users increasing in the present scenario and because of limited bandwidth available, there is a need to efficiently use the bandwidth available. The quality of service can be maximized by efficient bandwidth reservation. In this paper, the cross layer based bandwidth reservation scheme is proposed which initially reserves some amount of
bandwidth for handoff flows. After that the bandwidth can be increased for handoff flows by the base station based on the user mobility. The user may not only go straight but also left, right and backwards. This paper considers all possibilities of user movements and bandwidth is reserved accordingly. Therefore making the base stations to dynamically increase the reserved bandwidth for handoffs when the initially reserved bandwidth is insufficient reduces the end to end delay and increases the throughput of the system. The proposed system performance is compared with the legacy systems and is shown to be better.

Reference

- Wee-Seng Soh and Hyong S. Kim, “Dynamic Bandwidth Reservation in Cellular Networks using Road Topology based Mobility Prediction”.

**Index Terms**

Computer Science  
Wireless Communication

**Key words**

Hand offs  
Channel allocation  
QoS etc