Abstract

WiMAX is described as standards based technology enabling the delivery of the last-mile
wireless broadband access as an alternative to cable and digital subscriber line. Deploying femtoCells in WiMAX network gains a lot of attention due to better sharing of WiMAX network traffic by the FemtoCell. However, since the signal of WiMAX base station (BS) is stronger than FemtoCell Base Station (fBS), the handover procedure may not be triggered even though fBS is within the BS coverage. Besides, since the coverage of FemtoCell is small, it is possible that a huge number of fBSs are deployed in WiMAX BS coverage. The proposed work uses a beacon-based handover scanning mechanism to prevent the loss of signal strength during the handover process in femtocell. The proposed mechanism supports the QOS and also improves the throughput performance of network. A simulation is conducted using QualNet simulator. From the Simulation results it is observed end to end delay of the proposed work is small as compared with conventional handover mechanisms.

References


Index Terms

Computer Science

Networks
Keywords
Femtocell  Wimax  Handover  Quality Of Service (qos)