Abstract

WiMax Technology (Worldwide Interoperabillity Microwave Access) is a network system which is based on the IEEE 802.16 family that first published in October 2004 which at the beginning, it was built without support technology to perform handover between mobile devices. But then in 2005, the standardization is updated and modified in order to implement a mobile handover between cells, which is the latest version of this network's standard code given as 802.16e.

Algorithms that have been previously tested showed some weaknesses in the IEEE 802.16e scheduling process primarily on tested to the handover process. In this final task the algorithm that used are 3 round robin algorithm family such Smoothed Round Robin, Deficit Round Robin, and Weighted Round Robin because the RR is an algorithm that can cope with burstiness packet and provide good figures of fairness.

Here are external factors that included at the handover process of this tested task, such the MS speed, the MS trajectory, and the network topology which is statically configured by the author. Neither giving effect to the figures of the test, the most influential factor in the handover process in this final task is the scheduling algorithm that used. In this final task, SRR is an algorithm that can be said to be the best scheduling alghoritm and most stable in performing its duties as a packet scheduling as well as the handover trigger.

Keywords: IEEE 802.16e, Smoothed Round Robin (SRR), Deficit Round Robin (DRR), Weighted Round Robin (WRR)