

UNIVERSITI TEKNOLOGI MARA

IMPACT OF MULTIPLAY TRANSMISSION IN
MOBILE WIMAX USING OVERLAY SCANNING

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ABSTRACT

The growing demand for mobile internet and wireless multimedia application has motivated the development of broadband wireless-access technologies in recent years. There are several issues to impact the base station handover is a serious problem in the mobile communication system. In hard handover has a short time break known as handover interruption decrease the Qos due to connection between MS and serving BS closed and ranging hand initiation to establish new connection. Prolong time of request and response due to number of neighbours to scan which causes delay in handover process. This research proposed performance analysis of WiMAX/IEEE 802.16 with mobility supported, scan the channels provided by the mobile station. The proposed strategy required the mobile station for operation with a scan that can be used to reduce the time when trying to establish a network connection or do between neighbouring base station handover. A second type is the fast handovers will propose to reduce the unnecessary surrender to six different access modes. The mobile WiMAX air interface utilizes orthogonal frequency division multiple access (OFDMA) as the preferred multiple-access method in the downlink (DL) and uplink (UL) for improved multipath performance and bandwidth scalability. All simulations are run using MATLAB software to develop a new Overlay Scanning Mechanism (OSMA) algorithm. OSMA mainly focus on when to perform a scan to estimate future needs. Simulation results are to show that WiMAX coverage by using real world data to detect movement and show that there are strategies that reduce the time required for scanning operations significantly.

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