ANALYSIS OF IPTV SERVICE PERFORMANCE ON WIMAX TESTBED NETWORK

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ABSTRACT

Worldwide Interoperability for Microwave Access (WiMAX) constitutes wireless access technology developed by IEEE. This technology is beneficial for providing high and wide range data services. The presence of high WiMAX bandwidth is highly potential of providing adequate Internet services for the Internet users to access multimedia-based contents. One of which is the IPTV.

The present study conducted a WiMAX Testbed network designed for IPTV. WiMAX Testbed will be connected to a server integrated with video streaming and video on demand IPTV data source. The analysis performed based on network QoS and Service Class variation on WiMAX.

Service Class WiMAX consists of Best Effort (BE), Real time Polling Service (rtPS), Non Real Time Polling Service (nrtPS), and Unsolicited Grand Service (UGS). According to the video streaming and video on demand tests, it revealed that service class RTPS obtained the highest throughput score, the lowest delay score and jitter score as well. It indicates that service class RTPS is the most suitable service class for streaming video IPTV services.

Key words : WiMAX, IPTV service performance, QoS, Testbed
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