

ABSTRACT

The demand for service which requires large bandwidth and high data rate becomes increasing, it is because the offered service becomes more vary. IPTV is one of multimedia technology that requires the readiness of large bandwidth and high data rate. Because of these requirements, it needs a steady network to support in fulfilling the minimum parameter requirements for IPTV. Because IPTV is IP base and has functionality in delivering large number of video streaming, so that the conventional networks experience difficulties.

Because of the high demand in bandwidth and data rate, one of the solutions offered is the using of wimax network which has been certified and collaborate with IP technology. Among some wimax standards is mobile wimax which is certified in IEEE 802.16e standard. This standard is designed to the requirements of mobility where the appliance can communicate when moving. Like many other mobile communication which has problem when handover, in mobile wimax is the same. So that, the research will analyze network performance with IPTV as service when handover.

By the result of simulation and analysis can be stated that generally IPTV service will be worse when interval handover process. The best value for throughput is 7.18 Mbps, packet loss is 13.4%, delay is 38.9 ms, jitter is 4.14×10^{-5} , and application delay is 12 s. The values of QoS which are stated above generally are still unsatisfying IPTV service which uses MPEG-2 as codec. Then, the experience will be bad when handover process.

Keyword: mobile wimax, IPTV, handover