

## ABSTRACT

Nowadays, The development of Internet Protokol (IP) technology brings great effects. Most of people wants to access internet, everywhere and anywhere, they exist although in mobile condition. This matter makes Mobile IP technology appeared. This Mobile IP makes a new problem, handover. Handover process in Mobile IPv6 (MIPv6) needs much times, so it has not support standart service that has realtime characteristic. For supporting realtime service, simple and fast handover methode is needed. One of them is mobile stream control transmission (mSCTP), one of protocol that support mobility and from transport layer.

In this final task was designed a Mobile IP and mSCTP network that support IPv6 with another application that run , Video Streaming. Parameters that been observed such as delay handover MIPv6 and mSCTP also QoS from Video Streaming, include packet delay, jitter, troughput, and packet loss.

The results from this task are delay handover MIPv6 and mSCTP also QoS from Video Streaming will be know. Handover delay latency from MIPv6 is ranged between 4.311 second and 6.262 second, even though handover delay latency from mSCTP ranged between 3.903 second and 5.996 second. From QoS result, delay packet MIPv6 is better than mSCTP with delay packet MIPv6 20,761ms and mSCTP 35,012ms. Jitter packet mSCTP is better than MIPv6 before, after and during handover with jitter MIPv6 20,76 ms and mSCTP 1,74 ms. Throughput packet mSCTP is better than MIPv6 before, after and during handover with throughput MIPv6 0,787 Mbps and mSCTP 5,996 Mbps. Packet loss MIPv6 is better than mSCTP before and after handover with MIPv6 ,25%-29,11% and mSCTP 5,57%-21,66%, but during handover, mSCTP is better than MIPv6 with packet loss MIPv6 9,83%-46,98% and mSCTP 9,23%-29,83%.

**Key words:** MIPv6, mSCTP, handover, QoS, video streaming