

## ABSTRACT

IPv6 is an internet protocol that in the next few years will replace IPv4 as the availability of IPv4 addresses capacity is running low as the number of users of the gadget as well as other IP-based technologies. Compared with IPv4, IPv6 is much better in terms of very large capacity, security, and QoS, and in terms of mobility. There will be evolution from IPv4 to IPv6 gradually with initial condition IPv4 into IPv6 compared with the majority, whereas in the subsequent development of IPv6 is the one who will be more dominant.

In this final task will be tested against the implementation of multiplay services over networks with different IP versions of client and server, using the method of tunneling and dual stack. Expected each scenario tested service will deliver standards-compliant output.

The test results, according to the standard QoS ITU G.1010 and ITU-T P.800 to MOS, all scenarios obtained output value corresponding QoS standard except for scenarios mixed traffic audio and video streaming services, when background traffic above 40 Mbps the QoS Value is bad. For all scenarios. MOS value still meet the standards prescribed a result all scenarios can be categorized into good quality.

**Keywords : Multipaly Services, IPv4,IPv6, Tunneling, Dual Stack**