

## **Abstract**

This technical investigation of IPv6 in mobile Internet has been a bachelor's project and the purpose was to see possible consequences and possibilities for a future transition to IPv6 and how a transition may affect mobile products. IPv4 is the present Internet Protocol, and since the addresses are running out, IETF, a standardisation organisation, decided that a new protocol should be developed. IPv6 is an upgraded version of IPv4 and has one of the biggest advantages in the large address space. The new design of IP also meets future requirements like security and Quality of Service (QoS). A decision has been made to introduce IPv6 as one of the protocols of the future 3:rd Generation (3G) networks, which will create a great demand for IP addresses that IPv4 cannot supply. Although, the IPv6 standard is not ready, the question is not if IPv4 is going to transit to IPv6, it is only a question of when. The conclusion for this report is that for future mobile applications that will have “always-on” connections, IPv6 will be the only alternative.

The final results are that companies that work with an operating system that supports IPv6 with dual stacks, does not have to change their IPv4 applications; the operating system makes sure that applications will still work unaffected.

For future developed applications that run on an operating system that contains support for IPv6, there will be no need for supporting IPv4; in these products it will be sufficient with IPv6 only.

Companies that are developing mobile products for 3G networks have to transit to IPv6 when the net in Sweden is put in operation in the end of 2003.