

A STUDY ON INTERNET PROTOCOL VERSION 6 TO IMPLEMENT IPV6 ENABLED APPLICATION PROTOTYPE

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ABSTRACT

This project aims to give an in depth research on Internet Protocol which are currently divided into 2 versions (Ipv4 and Ipv6). The Internet Protocol Version 4 are becoming insufficient as huge numbers of hosts numbers are connected to Internet consumed the associated IP addresses. The new generation Internet Protocol was developed to expand addressing and routing, security and bandwidth. The concept of Ipv6 had been implemented in Ethernet, PP, FDDI, Token Ring, and in the current trend Mobile or Wireless Network Technology. The IP version 6 would replace the existing IP with a pilot method for a smooth migration and transitions between IP. An enabled Ipv6 application prototype will be implemented to proof that the technology is applicable globally, migrating from v4 to v6, from 32-bit to 128-bit IP address structure vice-versa by the use of available patches and API sockets within the prototype. Ultimately, this project aims to commercialize the use of IPv6 as the leading edge of the future network technology.