

Research on IPv6-IPv4 translation using NAT64 mechanism and building communication programs through NAT64

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Abstract: This topic focuses on the necessity of transitioning from IPv4 to IPv6 in the practical context of the Internet, especially as the number of IPv4 addresses is gradually being exhausted. The main objective is to address this transition challenge through the NAT64 mechanism and to build an effective communication program over NAT64. The research methodology includes both theoretical and experimental approaches to ensure the feasibility of the system. The expected outcome is to provide a practical application solution for network protocol transition and to enhance understanding of the NAT64 mechanism in practice.

Keywords: IPv6-IPv4, NAT64, Network Conversion, Communication Program, Network Research