Hierarchical Routing Architecture for Integrating IPv4 and IPv6 Networks

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Abstract

The deployment of the next-generation Internet Protocol, IPv6, has progressed rather slowly. Although some commercial products have been incorporated with parts of functions of IPv6, it is still difficult to have a revolution from IPv4 to IPv6 at one night. Since the current users on line must be cared, the migration from IPv4 to IPv6 must begin from integrating both IPv4 and IPv6 networks. In this paper, we propose a hierarchical routing architecture to integrate both IPv4 and IPv6 networks. It improves encapsulation overhead of tunneling based methods and reduces consumption of IPv4 addresses in header-translation based methods.

Keyword：IPv6, IPv4