Attacks on IPv4 and IPv6 Protocols and its Performance Parameters

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Abstract

Internet Protocol relays data across boundaries. This paper outlines the attacks and performance factors of IPv4 and IPv6 protocols. A small network of computing devices that started as ARPANET project is now a worldwide network of devices for most of users. This global network, the Internet, has become an integral part of worldwide economy and life of individuals. Internet Protocol (IP) v4 is the basic building block of the Internet and has served well, but it has limitations that hinder its growth. The solution is IPv6, which addresses inherent problems of the earlier version. However, due to the increased overhead in IPv6 and its interaction with the Operating system that hosts this communication protocol, there may be network performance issues. In this paper, we investigated the Performance related metrics like throughput, delay, jitter and CPU usage are empirically measured on a test-bed implementation. As a result, the various features of both the protocols based on the performance evaluation are provided.

Keywords: IPV4, IPV6, throughput, jitter, delay

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