

Abstract: Analysis of SCTP and TCP in Voice Communication

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Abstract

The number of users is increasing rapidly with the transmission of voice over IP; therefore, it is indispensable to provide fast transmission without delay and jitter, which severely affect voice quality. This paper examines the performance of two transport layer protocols: SCTP and TCP in transmission of voice packets. Generally, when packets arrive at destination then these packets are affected by jitter, therefore, researchers apply different algorithms on them in the buffer to minimize jitter. In this paper, the Chunk-based Jitter Management (CJM) algorithm is applied on packets in the buffer. The paper presents two topologies to analyze the performance of TCP and SCTP in case of delay and jitter. The functionality of these protocols is simulated and tested in NS2. The results show a good increase in throughput and delay and jitter minimization.

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