

SPACE COMMUNICATIONS AND NAVIGATION SYMPOSIUM (B2)
Near-Earth and Interplanetary Communication Systems (4)

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STUDY OF SCTP CONGESTION CONTROL OVER DEEP SPACE SATELLITE NETWORKS

Abstract

Stream Control Transmission Protocol (SCTP) is a new reliable transport Layer protocol which can be deployed in the internet along with TCP. SCTP has combining advantages of TCP and UDP and it has many desirable features including Multihoming, Multistreaming and partial data reliability. In this paper, we studies to explore behavior and performance through measurement of throughput and fairness of use of network resources of the SCTP Congestion Control over deep space satellite networks. The Congestion Control of SCTP is more or less similar to that of TCP exception of Fast Recovery Algorithm. The Performance of SCTP over the internet and satellite links is improved as compared with TCP. However, the congestion control scheme of SCTP over deep space high latency networks needs further refinement in case of multiple packet losses on a link. We propose new Congestion Control for SCTP and proving the significant improvement in the SCTP.