

MODIFIED SACK-TCP AND SOME APPLICATION LEVEL TECHNIQUES TO SUPPORT REAL-TIME APPLICATION

SYED SAMSUL AREFIN, IBRAHIM AZAD & HUMAYUN KABIR

Department of Computer Science and Telecommunication Engineering, Noakhali Science and Technology University,
Sonapur, Noakhali, Bangladesh

ABSTRACT

From the very beginning of the Internet, transport layer protocol TCP is generally not used for multimedia applications because it is optimized to provide reliable delivery of all data, rather than timely delivery of sufficient data. But to communicate in real time fashion a lot of application-specific and candidate real-time transport protocols such as UDP, SCTP are arrived but no one of them has achieved that maturity and acceptance of TCP. In this paper, we investigate exactly what changes should TCP employ to support real time communication. We also find some application level technique to support Modified TCP to operate well over interactive real-time application. The validation of the Modified TCP under the most widely used flexible network simulator NS2 shows that it allows the real-time application to operate very well, up to 4% of network drop rate. That is the Modified TCP along with some application level technique is superior then UDP and regular TCP.

KEYWORDS: Real-Time Communication, SSTHRESH, SACK-TCP