

Call for Papers

Special Issue on “High Speed Transport Protocols”

Emerging new applications such as computational grids, web streaming or some bulk-data transfer require huge transfer capacity on the Internet. However, TCP, which is the current Internet transport protocol, was not developed for efficient communication at very high speed. Especially the congestion control mechanisms of the standard TCP become a performance bottleneck as the transmission speed grows and the TCP has to deal with large bandwidth-delay products.

Several proposals emerged in the literature to overcome the different aspects of this problem. For example, HighSpeed TCP, Scalable TCP, FAST TCP, HighThroughput TCP and others were developed and analyzed. The new ideas will probably converge to a widely acceptable solution.

The objective of this special issue is to present the state-of-the-art research of high speed transport protocol proposals (including not only TCP variants) and also collect all the related investigations in this field. Our main purpose in this issue is to focus on novel ways in which transport protocols can work efficiently on high speed links.

We solicit papers covering a variety of topics including but not limited to the following:

- Current developments of high speed TCP
- High speed TCP variants
- Novel high speed transport protocols
- Novel high speed congestion control methods
- Performance modeling and analysis of high speed TCP congestion control algorithms
- Measurements and simulation studies on high speed TCP performance
- Analytical modeling of congestion control methods for high speed communication
- Fairness issues of new high speed transport protocol proposals
- Experiments and prototype implementations and lessons learnt from them
- Applications of transport protocols to high speed satellite and wireless links

Submission Guideline

Authors should follow the Telecommunication Systems manuscript format described at <http://www.kluweronline.com/issn/1018-4864>.

Prospective authors should submit a PDF/PS version of complete manuscript to one of the Guest Editors

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Important Dates

Submission Deadline: November 1, 2004

Notification of Acceptance: April 15, 2005

Final Manuscript Due: July 1. 2005
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