

Call For Papers

IEEE Network Magazine

Scalability in Communication Networks

Guest Editor:

Amitabh Mishra
Bradley Department of Electrical & Computer Engineering
Virginia Tech
2040H Torgersen Hall
Blacksburg, VA 24061
+1 (540) 231-9689
mishra@vt.edu

Scope:

Scalability has always been an important issue in communication architectures. Network equipment vendors as well as service providers face the scalability challenge on a day-to-day basis. The former need to design systems, which are scalable at the application level to be provisioned by the latter in service. For a network system, scalability is dependent on the hardware architecture, application software architecture, underlying operating system, size of the data, and its communication protocols. Due to the heterogeneity of not only network equipment and network-based services but also service providers themselves, the scalability challenges have become even more critical. In those cases, where the Internet has become the main communications infrastructure; the scalability issues are further aggravated. Large networks such as the Internet have some fundamental scalable limitations when it comes to managing individual traffic flows. While Internet protocols such as RSVP are believed to be non-scalable, the scalability of MPLS, IntServ and DiffServ have yet to be studied.

This special issue of IEEE Network seeks to present a series of state-of-the-art papers on scalability issues in communication networks. In particular, we are interested in tutorial and survey articles on, but not limited to, the following set of topics:

1. Scalability in Switching Systems
2. Scalability in Communications Services
3. Scalable Network Architectures
4. Network Protocols and Scalability
5. Scalable Signaling Architectures
6. Admission Control & Scalability
7. QoS and Scalability
8. Scalability in Wireless Networks
9. Scalability issues in the Internet & other IP based networks

10. Scalability issues in Routing
11. Scalability of Network and Service Provisioning
12. Scalability of Service Assurance
13. Scalability of Network Management

Manuscript Submission:

This special issue will only consider electronic submissions in postscript, PDF, or MS Word formats. To submit a paper for consideration, authors need to contact the guest editor via email. The paper should be included as an email attachment, or authors may provide a URL from where the file can be downloaded.

Please indicate which author is to serve as the primary correspondence contact. For each author please list affiliation, mailing address, phone/fax numbers, and email address.

Additional information including “Guidelines for Authors” is available at the IEEE Network Website: <http://www.comsoc.org/socstr/techcom/ntwrk/authors.html>

Schedule:

Submission Deadline: November 15, 2001

Acceptance Notification: February 15, 2002

Final Manuscript Due: April 1, 2002

Publication of Special Issue: July/August, 2002