TOPICS IN INTERNET TECHNOLOGY

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The Internet Technology Series of *IEEE Communications Magazine* continues to attract a good number of quality papers from all over the world. The number of submissions has been steadily increasing, indicating a strong interest in the topic among our readers.

This time, we accepted three outstanding articles out of 10 originally submitted for possible publication in this issue. The review process was rigorous as we required at least three reviews for each article. Again, we are very thankful to all the reviewers who certainly have put a lot of time and effort into making this series a success.

The explosive growth of Internet applications combined with widespread availability of small hosts in the form of laptop and palmtop computers has created an increasing demand for mobility support to hosts in moving. Mobile wireless networks have evolved to be integrated with IP-based infrastructure for multimedia applications where mobility support has become a key issue. The first article, by Jie Li and Hsiao-Hwa Chen, aims to provide an overview of technical issues in mobility support for different IP-based networks including Mobile IP, Mobile IPv6, and IP mobility support with wireless LANs (WLANs) and WWANs. The authors also discuss recent developments in mobility support for cellular networks and next-generation heterogeneous IP-based mobile networks.

In the second article Xiaoming Fu *et al.* discuss the direction taken by the Internet Engineering Task Force (IETF) and some of the recent standardization efforts on a new extensible IP signaling protocol suite (NSIS). They describe the principles and state of the art in the design and development of the NSIS protocol suite. Then they compare those with Resource Reservation Protocol (RSVP), the current Internet quality of service (QoS) signaling protocol. This will hopefully give our readers a good understanding of the research issues related to the IP suite that has dominated networking technology as a result of expansive growth of the Internet. This is in addition to the general needs with respect to protocol extensibility, network security, and other requirements calling for a new approach to IP signaling.

The third article discusses techniques to make networks more survivable and tolerant with a view to increasing their dependency. In addition to possible future research issues, the article also discusses protocols reaction to failures, protection and restoration schemes, routing, and fault recovery.

This series is published in May and October every year. The quality of the series depends on the quality of articles and the stringent refereeing carried out by a large number of volunteers. We would like to thank the authors and reviewers for their time and dedication to this series. We also invite potential authors to continue submitting high quality papers.

We would like to acknowledge the help of the Editor in Chief, Roch H. Glitho, and ComSoc publicaitons staff, Joe Milizzo and Sue Lange, for helping with the production of this series. We welcome any comments you may have to further improve the quality of this series.

BIOGRAPHIES

MOHSEN GUIZANI [SM] (mguizani@cs.wmich.edu) is currently a professor and chair of the Computer Science Department at Western Michigan University. He received his B.S. (with distinction) and M.S. degrees in electrical engineering; and M.S. and Ph.D. degrees in computer engineering in 1984, 1986, 1987, and 1990, respectively, from Syracuse University, New York. His research interests include computer networks, wireless communications and computing, and optical networking. He currently serves on the editorial boards of six technical journals, and Founder and Editor-in-Chief of Wiley's *Wireless Communications and Mobile Computing Journal* (http://www.interscience.wiley.com/jpages/1530-8669/). He is the author of four books. He guest edited a number of special issues in journals and magazines. He also served as member, Chair, and General Chair of a number of conferences, including, ICC, GLOBECOM, INFOCOM, and many others. He was the General Chair of IEEE VTC-Fall 2003. He has more than 140 publications in refereed journals and conferences. He is selected as a Distinguished Speaker for IEEE Computer Society until 2005. His research has been supported by Sprint, Telecordia, Navy, and Boeing, to name a few. He received both the Best Teaching Award and the Excellence in Research Award from the University of Missouri-Columbia in 1999 (a college-wide competition). He won the best Research Award from KFUPM in 1995 (a university-wide competition). He was selected as the Best Teaching Assistant for two consecutive years at Syracuse University, 1988 and 1989. He is a member of IEEE ComSoc, IEEE Computer Society, ASEE, ACM, OSA, SCS, and Tau Beta Pi.

MOHAMMED ATIQUZZAMAN [SM] (atiq@ieee.org) received M.Sc. and Ph.D. degrees in electrical engineering from the University of Manchester, England. Currently he is a professor in the School of Computer Science at the University of Oklahoma. He is Co-Editor-in-Chief of *Computer Communications Journal*, and serves on the editorial boards of *IEEE Communications Magazine*, *Telecommunications Systems Journal*, *Wireless and Optical Networks Journal*, and *Real Time Imaging Journal*. He has guest edited many special issues in various journals, and organized special sessions in conferences. He was technical co-chair of HPSR 2003 and the SPIE Quality of Service over Next-Generation Data Networks Conference (2001, 2002, and 2003). He also serves on the technical program committee of many national and international conferences, including IEEE INFOCOM, IEEE GLOBECOM, and IEEE International Conference on Computers and Communication Networks. His current research interests are in wireless, satellite, and mobile networks, QoS for next-generation Internet, broadband networks, multimedia over high-speed networks, TCP/IP over ATM, multiprocessor systems, and image processing. He is a coauthor of the book *TCP/IP over ATM Networks*. He has taught many short courses to industry in the area of computer and telecommunication networking. His research has been supported by state and federal agencies like NSF, NASA, U.S. Air Force, Ohio Board of Regents, and DITARD (Australia). He has over 130 refereed publications in the above areas, most of which can be accessed at http://www.cs.ou.edu/~atiq.