
FOREWORD

Special Section on Internet Architectures, Protocols, and Management Methods that Enable Sustainable Development

The Internet has become an indispensable communication infrastructure. Currently, migration from IPv4 to IPv6 is strongly required due to exhaustion of IPv4 addresses. However, such a migration is not adequate to solve the problems the current Internet has and to support future demands; we must make the Internet sustainably evolvable. One of research trends called “clean slate approach” has attracted considerable attention, in which the Internet is redesigned based on new concepts. As a result, some new concepts, e.g., information centric networking and software-defined networking, are proposed. A huge number of sensor nodes connected to the Internet will make the Internet larger and more complex. This requires new routing technologies and traffic control technologies. Since cloud computing and grid computing will become more popular, new security technologies for such an environment are also required. In addition, new network management schemes for large and complex networks are necessary.

Based on these activities, the editorial committee for the special section was organized to publish these new discussion items. For the call for papers, 19 papers were submitted to this special section, and 10 of them were accepted for publication through the review process. The accepted papers include a wide variety of topics in the field of the Internet research. We believe that all these papers provide useful information to readers who are interested in this field and stimulate the future research activities of future Internet technologies.

Finally, the editorial committee would like to express their sincere appreciation to all authors for their valuable contributions and to all reviewers for their cooperation in completing the review process under a tight schedule.

Editorial Committee for this Special Section

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Fumio Teraoka (Keio Univ.), Guest Editor-in-Chief

Fumio Teraoka (*Member*) received M.E. and D.E. degrees from Keio University in '84 and '93, respectively. He joined Canon Inc. in '84 and moved to Sony Computer Science Laboratory Inc. in '88. Since 2001, he is a professor of Keio University. He has been working on Internet mobility, cross-layer collaboration, transport protocols, etc. He is currently interested in new network architecture for NwGN (New Generation Internet). He received the Takahashi Award of JSSST (Japan Society for Software Science and Technology) and the Motooka Award in 1991 and 1993, respectively. He received the Best Paper Award of IPSJ (Information Processing Society Japan) in 2000. He was a board member of the WIDE Project from 1991 to 2010. He was a board member of IPSJ from 2000 to 2002. He was a board member of JSSST from 2005 to 2009. He is a member of ACM, IEEE, JSSST, and IPSJ.

