

Call for Paper

Special Issue of the International Journal on Network Management (IJNM) on “Economic Traffic Management”

Publication: February 2011

Scope of the Special Issue

Economic perspectives in network management have recently attracted a high level of attention, especially due to the fact that network management tasks have become very complex, now optimizing various dimensions of a network operation. Route optimizations, Quality-of-Service (QoS) provisioning, and traffic management determine a few of these often conflicting dimensions. In view of the dramatic increase of overlay traffic, driven among others by Peer-to-Peer (P2P) applications, more traditional optimizations now tend to be superseded by economically-driven traffic management solutions. Such solutions are especially suitable to cases involving millions of individual users injecting traffic into the networks of multiple interacting network service providers, acting on different tiers and pursuing different incentives. Due to the decentralization of these players and to the commercialization of service offerings, a scalable and economically-driven approach offers a wider range of interesting alternatives for optimization, traffic management, network management, and respective legal views in general. Moreover, it allows for the system to reach a viable equilibrium, where each of the players still pursues his own interests and no further coordination has to be assumed.

Thus, it is the major goal of this Special Issue to present innovative approaches and solutions for economically-driven management tasks, with a selected emphasis on economic traffic management questions and auxiliary aspects. Those aspects relate physical network domains to application characteristics in order to enable an efficient and decentralized decision as well as operation involving optimized data transfer. Therefore, this Special Issue of the International Journal on Network Management covers ongoing research in the area of traffic management, its related economics, and supporting models, mechanisms, and technologies. Dedicated application scenarios, such as that of P2P applications, overlay networks, or virtual networks, are of high interest, as well as the study of scenarios involving interactions among them. Tutorial-style articles in these fields are also solicited, if they provide a structured introduction and a clear overview of state-of-the-art technologies, mechanisms, or architectures, and newly emerging challenges as well as problems.

Areas of Interest

Contributions in the following areas are of specific interest but are not limited to:

- Economic Traffic Management
- Incentive Schemes for Networked Services
- Accounting and Charging Mechanisms
- Protocols as Economic Support Functions
- Economically-driven Network Architectures
- Pricing Models for Commercial Services
- QoS Management and Economic Effects
- Economic Security Management
- Energy-efficient Network Management
- Economics of Self-organized and Peer-to-Peer Networks
- Economics in Cloud Computing
- Economics of Virtualized Networks and Systems
- Economics of Networked Applications and Services
- Efficient Bandwidth Allocations
- Future Internet Socio-Economics
- Applied Methods for the Evaluation of Economic Effects, such as Game Theory, Queuing Theory
- Service Level Agreement Management
- Legal and Regulative Aspects of Commercial Service Offerings

Indexing Information

IJNM is indexed at Cambridge Scientific Abstracts (CSA/CIG), COMPENDEX (Elsevier), Computer Science Index (EBSCO), Computing Reviews (ACM), CSA Technology Research Database (CSA/CIG), INSPEC (IET), and SCOPUS (Elsevier).

Important Information

Authors should send their submissions in PDF format only and by e-mail to ijnm@ifi.uzh.ch. The paper submission should not exceed 20 pages. Author instructions are available at <http://www3.interscience.wiley.com/journal/5703/home/ForAuthors.html> and the respective LaTeX template can be found at http://www3.interscience.wiley.com/journal/5703/home/latex_class_file.htm

All submissions will be peer-reviewed. In case of an acceptance, the final and camera-ready version has to take into account comments of reviewers and needs to follow the template's requirements.

Important Deadlines

Submission Deadline:	May 15, 2010
Notification of Acceptance:	August 15, 2010
Final Version:	September 30, 2010
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Submissions by e-mail to ijnm@ifi.uzh.ch in PDF only.

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