



Call for Papers: Special Issue on Next Generation Network Architectures, Protocols, Theory, Systems and Applications

Networking Science (by Springer-Verlag)

Networking Science (by Springer-Verlag) is a leading international journal focused on progress in networking in China and the Asia Pacific region. Original, high quality manuscripts are sought for a special issue of the journal on the theme of *Next Generation Network Architectures, Protocols, Theory, Systems and Applications*. A Next generation Network (NGN) is a single packet switching network that transports all information (voice, data, multimedia) by encapsulating these into packets. It is an "all IP" based network built around the Internet Protocol that is aimed to replace legacy telecommunications networks such as Telecom's PSTN (Public Switched Telephone Network). NGN provides a logical separation between packet switching and transport elements such as routers and switches, and service and call control intelligence. It offers Quality of Service (QoS) and is augmented by generalized mobility services to facilitate consistent and ubiquitous provision of services to users. The service providers are increasingly looking to leverage the services of NGN to expand their customer base. However there are a number of architectural issues such as those that relate to QoS, topological design, and management and control that need to be addressed first. The goal of this special issue is to solicit the state of the art approaches and technical solutions in the area of NGN. The issue will provide a focused forum for researchers, practitioners and vendors to present their research results thereby presenting a comprehensive snapshot of the latest advances in NGN.

Topics of Interest: We invite submissions on all topics related to NGN including but not limited to those listed below:

- IP interconnection related issues
- Open access network models for NGN
- Provisioning of mobile multimedia in NGN
- Multimedia content retrieval and on demand content offerings including VOD and catch up TV
- Traffic engineering, modeling and measurement in NGN
- Pricing mechanisms and business models for NGN
- Regulatory frameworks and issues for NGN
- Ethical, social and economic drivers for NGN
- Security policy and management of NGN
- Trust management frameworks for NGN
- Trusted hardware/software platforms for NGN
- Quality of Service (QoS) issues in NGN: Admission and congestion control
- Storage networking and network convergence
- Grid and cloud computing support for NGN
- New switching and routing techniques in NGN
- Broadband wireless access technologies for NGN
- Interoperability issues between wired and wireless NGN technologies
- Sensor network services in NGN
- Broadcast and multicast services in NGN
- Multi layer networks and cross layer design
- Mobility support: Location-based and context-aware services
- Overlay networks
- Service differentiation and SLAs.
- Integration of fixed and mobile networks

Paper submissions: We welcome original, high quality papers on the theme of *Next Generation Network Architectures, Protocols, Theory, Systems and Applications*. Submissions of substantially revised and extended versions of selected papers, presented at the 4th International Conference on Security of Information and Networks (SIN 2011), will be encouraged provided that their topics fall into the main theme of the special issue and the new content exceeds 30% of the paper. **It is an essential requirement that the submitted papers will need to have at least one (co-)author from China and/or the Asia-Pacific region.** Note that the papers should not exceed a maximum of ten pages and should be prepared using the paper templates provided by Springer-Verlag (<http://www.springer.com/computer/communication+networks/journal/13119>). Please submit papers via Editorial Manager (<http://www.editorialmanager.com/nwsc/>) as "SIN2011 Special Issue". As an appreciation, the publisher will send the authors of the special issue two hard copies of four consecutive issues of the Journal after the papers are published.

Important Dates:

- Invitation for selected papers from SIN2011: **November 30, 2011**
- Submission deadline for all papers: **January 15, 2012**
- Completion of first-round reviews: **April 15, 2012**
- Submission deadline for revised papers: **May 15, 2012**
- Final acceptance notifications: **June 15, 2012**
- Final publication materials due: **June 30, 2012**

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