Beyond the Internet?

– Innovations for future networks and services –

an ITU-T Kaleidoscope event technically co-sponsored by IEEE Communications Society

Pune, India, 13–15 December 2010
Call for Papers

ITU-T Kaleidoscope 2010 **Beyond the Internet?** – *Innovations for future networks and services* – is the third in a series of peer-reviewed academic conferences that bring together a wide range of views from universities, industry and research. The aim of Kaleidoscope conferences is to identify information and communication technologies (ICTs) for which the development of standards can turn innovations into successful products and services.

The rise of mobile access and its integration with optical transport networks pose key questions: how should the current architecture evolve to accommodate fixed-mobile integration and the demand of services and applications, 10-15 years from now? How could the cloud and grid computing models be integrated? And, what will the social and economic impact of these innovations be in the future information society?

Some experts question whether the current underlying architecture is sufficiently robust to evolve and adapt to future demands and especially to address security concerns, or if a "clean slate" approach is needed to develop a really innovative Internet of the future. Contributors seeking to bring innovations for future networks and services might have to challenge the fundamental networking design principles of the Internet.

Beyond the Internet? – *Innovations for future networks and services* – is calling for original academic papers offering innovative and daring approaches towards the Internet of the future. Kaleidoscope 2010 aims to be a unique opportunity to share views on the future ubiquitous communications and to collect broad, kaleidoscopic views building upon lessons learnt from existing networks and services.

Objectives

Beyond the Internet? – *Innovations for future networks and services* – will highlight multidisciplinary aspects of future ICTs, based on contributions from the world's universities, industry and academic institutions. The focus will be on innovative technologies and their impact on the evolution of Internet architectures, services and applications, as well as societal and economic challenges.

New this year

In addition to a local universities exhibition, outstanding keynote speakers and invited papers, ITU will host in 2010 **Standards Corner**, a series of standardization tutorials and **Jules Verne's corner**, a special space for science fiction writers and dreamers.

Audience

Beyond the Internet? – *Innovations for future networks and services* – is targeted at all specialists with a role in the field including researchers, academics, students, engineers, regulators, top decision-makers and thinkers from all over the world who look into the future.

Date and venue

13-15 December 2010, Pune, India

Submission of papers

Prospective authors, from countries that are members of ITU, are invited to submit complete, original papers with a maximum length of 4500 words within eight pages including summary and references, using the template available on the event website. All papers will be reviewed through a double-blind, peer-review process and handled electronically; see http://itu-kaleidoscope.org/2010 for the online submission (EDAS). The main themes are suggested in the list of topics. The deadlines for paper submission are highlighted below.

Deadlines

Submission of full paper proposals: **10 May 2010** *extended*
Notification of paper acceptance: **30 July 2010**
Submission of camera-ready accepted papers: **10 September 2010**

Publication and presentation

Accepted papers will be presented during the event, published in the proceedings and made available through the **IEEE Xplore**. The best papers will be invited for evaluation for potential publication in the IEEE Communications Magazine.

Awards

Awards of **USD 5k, 3k and 2k** will be granted to selected best papers, as judged by the organizing and programme committees. In addition, young authors presenting accepted papers who have not yet received a PhD title will also receive a Young Author Recognition certificate.

General Chair

Yoichi Maeda (ITU-T; NTT, Japan)

Organizing Committee

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Programme Committee

Chairman: Mostafa Hashem Sherif (AT&T, US)

The complete list of Programme Committee Members, which will include more than 100 subject matter experts worldwide, is available at: http://itu.int/ITU-T/uni/kaleidoscope/2010/progcom.html

Keywords

Future Internet, technological innovation, network architecture, services, applications, ICT standards, information society, policy and economic issues.

For additional information

Additional info can be found at the event website:
http://itu-kaleidoscope.org/2010.
Inquiries should be addressed to kaleidoscope@itu.int

Suggested (non-exclusive) list of topics

Track 1: Technology and architecture evolution

- Evolution of Internet architecture, NGN and the future internet
- Mobility and nomadicity in evolved architectures
- High-data-rate mobile infrastructures, seamless handover, multihoming and mobility
- Convergence of optical/photonics and radio techniques for transport and access networks
- Ultra-high speed transport networks
- Cloud computing and grid computing
- Enterprise integration of legacy networks and the future internet
- Advanced network security, network identification, biometrics, localization techniques and ubiquitous sensor networks (USN)
- Intelligent Transportation Systems (ITS) infrastructure
- RFID, sensors and ad-hoc networks
- Evolution of display technology
- Broadcasting, multicasting, unicasting and peer-to-peer in the future internet
- Green and energy efficient architectures
- Digital rights and identity management

- Evolution of network management including fault management and localization
- New hardware solutions, integrated circuits, antenna designs etc.
- Service oriented modeling and analysis in future architectures

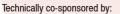### Track 2: Applications and services

- Enhancing accessibility for all
- Open service interfaces, service interaction and interoperability in future scenarios
- New entertainment initiatives (games, IPTV, Interactive TV, Mobile TV, and others)
- Applications to reduce power consumptions
- The fully networked car
- Quality assurance / QoS for real time multimedia services
- Innovative multimedia applications and content delivery
- Advanced smart terminals
- Enhancing electronic storage and data mining
- Simulation and development tools
- Future virtual communities / social networking services
- Creative combinations of web and network services
- Middleware service discovery
- Evolution of e-public services (e.g. e-government, e-health and e-learning)
- Advanced services using sensors and RFID applications
- Solutions for ICT recycling and waste reduction
- Field experience in creating innovative solutions using limited technology

Track 3: Social, economic and policy issues

- Evolution of legislative and regulatory frameworks towards inclusive converged networks
- Balancing Internet security and ubiquity
- Securing users from Internet content (e.g. child protection)
- Evolution of NGN and future internet standardization
- Business models for the information society (including accounting, billing and charging)
- Economics of ICT standardization
- Standardization models for the Internet of the future
- Societal impact of virtual / collaborative environments
- Management of virtual and collaborative teams
- ICTs as an enabling technology to mitigate climate change and GHG emissions.