



**NOMS 2006**  
**10th IEEE/IFIP Network Operations and Management Symposium**  
Vancouver Convention and Exhibition Center, Vancouver, Canada  
**3-7 April, 2006**  
*"Management of Integrated End-to-end Communications and Services"*



## PRELIMINARY CALL FOR PAPERS

The 10th IEEE/IFIP Network Operations and Management Symposium (NOMS 2006) will be held 3-7 April 2006 in the Vancouver Convention and Exhibition Center, Vancouver, Canada. Held in even-numbered years since 1988, NOMS 2006 will follow the 18 year tradition of NOMS and IM as the primary forum for technical exchange of the research, standards, development, systems integration, service provider, and user communities. NOMS 2006 will present up-to-date approaches and technical solutions for integrated systems and services including communication networks, host systems, enterprise applications, service oriented architectures, and delivery of management services. The conference provides a peer-reviewed program of technical sessions, application sessions, tutorials, posters, and panels as well as vendor exhibits.

Integrated systems and services require considerations for today's multi-service and multi-domain environment of heterogeneous technologies, service offerings, management strategies, and business models. NOMS 2006 focuses on integrated management that encompasses provisioning, operation, and maintenance. This broad scope also calls for an integrated approach to dependability, resilience, quality-of-service, mobility management, and services billing. In particular, these considerations include the combination of wireless and wired networks and the integration of all-IP communication systems.

NOMS 2006 will offer five types of sessions: technical, application, poster, panel, and BoF. Technical sessions present high-quality papers on the latest research results in the network operations and management area. Application sessions present papers focusing on the experience of IT and telecommunications industries, such as service providers, OSS vendors, and equipment manufacturers. The scope here includes customer requirements, management system implementations, and business practices. Poster sessions provide an insight into work-in-progress. Panel sessions focus on business implications, market trends, and emerging applications with panelists who are technology and business leaders. Authors are invited to submit complete unpublished papers that are not under review in any other conference or journal in the following, or related topic areas:

### Management Paradigms, Models and Architectures

- Self-managing networks (self-healing, self-optimizing, self-protecting and self-configuring)
- Integrated control and management
- Distributed and scalable management
- Policy and role based management
- Programmable, active, and adaptive mgmt
- Resilience and survivability
- "Plug-n-Play" component-based management
- Customer controlled and managed networks
- Proactive and reactive management

### Operation and Management Functions

- Security management
- Mobility management
- End-to-end measurements
- Network and systems monitoring
- Alarm correlation and filtering
- Customer care and workforce management
- Process engineering for operators' service and network management
- Performance and fault management
- Configuration and accounting management
- Integration and testing of commercial off-the-shelf products
- Content hosting and delivery
- Path Protection and Restoration
- Internet service pricing, Bandwidth trading

### Service Engineering and Operational Challenges

- Next generation operation support systems
- Service design and quality assurance
- Resource inventory, planning, and allocation
- Service discovery and service negotiation
- SLA and business process management
- Quality-of-Service management
- Service portability/mobility (VHE)
- Transaction-oriented services and supply chain management
- "Soft" networks (Soft-switch, Parlay, 3GPP OSA, JAIN) and service switching
- Dynamic service requirements analysis
- Charging and accounting of integrated systems and services

### Theories, Models, and Enabling Management Technologies

- Theory (control, optimization, economic, games, chaos, graph, etc.) for management
- Grid, middleware and peer-to-peer technologies
- Information models and Internet technologies (Web, XML, DEN, CIM)
- AI techniques (knowledge-based, intelligent agents, machine learning, neural networks,)
- Data warehousing, ontology, mining and statistical methods in management
- User interfaces and virtual reality in management

### Management of Emerging Networks and Services

- Converged networks and services
- Peer-to-peer and community networks
- Grids, grid services, and grid applications
- Ad hoc and self-configurable networks
- Multi-sensor and self-organizing networks
- Overlay networks, virtual topologies and VPN services
- Wireless broadband networks (2G, 2.5G, 3G, and beyond)
- High speed access, Wireless Local (WLANS) and Personal Area Networks (PANs)
- Optical networks (metropolitan, all optical, WDM, DWDM, optical IP)
- Video and broadband cable networks
- VoIP, VoD, FTTX networks, services, and protocols (IPv4, IPv6, H.323, SIP, RTP, RTCP, RTSP, MGCP, and QoS)
- Storage Area Networks (SAN) and ASPs server farms
- Web services and content delivery networks
- Smart homes and networked haptics
- Satellite and interplanetary networks
- e-World (e-health, e-commerce, e-business, and e-government)

### Important Dates:

Deadline for Technical Session Papers:  
Deadline for Application Session Papers:  
Deadline for Tutorials, Panels and Posters:  
Notification of Acceptance:  
Final Camera Ready Papers Due:

**1 August 2005**  
**15 September 2005**  
**15 September 2005**  
**12 November 2005**  
**15 January 2006**

For more information, please contact one of the two:

### Program Co-chairs:

**Joseph L. Hellerstein**, IBM, U.S.A.

*hellers@us.ibm.com*

**Burkhard Stiller**, University of Zürich and ETH Zürich, Switzerland  
*stiller@tik.ee.ethz.ch*