Special Session on
Autonomic Communication

IEEE Consumer Communications and Networking Conference 2006 (CCNC2006)
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http://www.ieee-ccnc.org/2006/

Scope

The Internet is facing ever-increasing complexity in the construction, configuration and management of heterogeneous wireless networks. New communication paradigms are undermining its original design principles. The mobile Internet demands a level of optimum that is hard to achieve with a strictly-layered protocol stack. All of these have put traditional design methodologies for the Internet under examination. Autonomic communication (AutoComm) represents a vision of using context-awareness and distributed policy-based control to achieve efficiency, resilience, immunity and evolvability in large-scale dynamic communication infrastructure. Meeting the grand challenges of autonomic communication requires scientific and technological advances in a wide variety of fields, and intensive cross-disciplinary basic and applied research.

This special session will provide a forum for researchers working in the field of AutoComm to exchange ideas and seek synergies. The forum also aims to bring together academic and industry professionals for meaningful collaborations. In doing so, we hope to develop and nurture a community that work closely to contribute to the communication paradigms of the future Internet.

Topics solicited in this special session span a wide range of areas of interests including but not limited to:

AutoComm in home networks	AI and agent technologies for AutoComm
AutoComm in consumer communications	Adaptive control theories for AutoComm
AutoComm in multimedia communications	Grid solutions for AutoComm
Middlebox communications and AutoComm	Network calculus and network coding for AutoComm
Autonomic services	Cellular automatons for AutoComm
Autonomic signaling	Swarm intelligence for AutoComm
Network architecture with AutoComm flavors	Economic models for AutoComm
Holistic and systematic cross-layer design for AutoComm	Learning and knowledge plane construction techniques
Protocol engineering featuring self-*	Situation/Context-awareness
Bio-inspired principles for AutoComm	Proactive monitoring and control
Networked ecosystems	Rule and policy-based management
Self-organizing systems	Fitness functions for AutoComm
Self-optimizing and self-tuning networks	Cost functions for AutoComm
Self-healing and self-protecting networks	Decision theories for AutoComm
Self-configuring networks	Conflict resolution algorithms for AutoComm
Self-governing and self-aware networks	Evolvability in AutoComm
Composable/Composite functional systems	AutoComm testbeds
Ecological models for AutoComm	Mobile code and network programmability

Important Dates

Paper submission deadline:	August 31, 2005
Notification of acceptance:	September 30, 2005
Camera-ready version due:	October 14, 2005

Session Co-Organizers

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Submission Instructions

Prospective authors are invited to submit regular technical papers or position papers. The later should present novel technologies at an early stage of development or share future vision. All the submissions should describe original, previously unpublished research, not currently under review by any other conference or journal. Manuscripts should not exceed 5 pages in double-column IEEE format. Please submit the paper through EDAS and send a notice to xiaogu@ibr.cs.tu-bs.de.

1. Log on to http://edas.info and click on "go to the current list of conferences and special issues".
2. Look under Accepting Submissions. Click on CCNC2006 IEEE Consumer Communications and Networking Conference. You will be directed to the paper submission page titled "EDAS: IEEE Consumer Communications and Networking Conference".
3. On the paper submission page, you will find a list of tracks/sessions. Choose "CCNC2006 special session technical papers" and click on the corresponding "submit paper" button (http://edas.info/Paper.cgi?c=4571).
4. Fill in the submission form.
5. Select "Autonomic Communication" from Track pull down at the bottom of the submission form.
6. Click on the 'Submit' button.
7. Upload your paper.
8. Send an email notification to xiaogu@ibr.cs.tu-bs.de.

All submitted papers will be rigorously reviewed. They will be judged with respect to their relevance, novelty, significance, correctness and readability.