

CALL FOR PAPERS

The 1st International Workshop on Autonomic Wireless Access (IWAS 2007)

in conjunction with WoWMoM 2007, Helsinki.

Autonomic Communications has been proposed widely as a general future trend of networking systems. It has been explored in the context of the Internet and to an extent for multihop wireless networks. Papers where the principle is viewed from the terminal perspective are also appearing.

Increasingly terminals and network access support multiple wireless technologies that are optimized for applications under different conditions. Access to spectrum based on dynamic principles has been proposed. Access network device capabilities are becoming more and more complex including support for multiple radios using generic hardware. Access network and service performance are affected by a large number of parameters and control algorithms. It is therefore of vital interest to operators and vendors to minimize operational effort and cost through the adoption of Autonomic Communications and Computing (ACC) principles for self-configuring and self-optimizing access networks. In order to consider different products, services, pricing or business models, targets and solutions thereof need to be flexible enough and with open standards (multi-vendor). Due to these challenging requirements, future wireless access networks will be very complex and thus fruitful areas for ACC applications. The hope is that with added computing intelligence these future systems can become easy to handle, effective and at reasonable cost.

The same increased complexity introduced by multiplicity of wireless access methods available is visible in the terminals and requires novel approaches. From the users perspective multi-access networks are desirable only if they do not complicate the human interface.

The research community is now asked to elaborate on concepts and technologies to reduce considerably the manual effort for access network configuration and optimization and for approaches that allow ease of use of future multi-access networks by the end users. Reductions of operational costs and complexity are key drivers for next generation wireless systems, such as 3G Long Term Evolution and WiMAX.

The goal of the workshop is to provide a venue for academic and industrial research communities for exchanging ideas and experiences on autonomous systems of cellular and wireless kind. The workshop invites original contributions on both empirical and theoretical nature and position papers, on the topics including, but not limited to

- * architectures for self-optimization and self configuration in wireless access networks
- * protocol architectures for autonomic control and for access to autonomic wireless networks
- * management concepts for self-managing systems
- * allocation of autonomic control decisions to terminals and to the network in B3G systems
- * algorithms for autonomic radio resource control in future wireless access networks
- * benchmarking and analysis of performance gains from autonomic control
- * autonomic control over opportunistic spectrum access

- * radio network planning for autonomic wireless access networks
- * adaptive and autonomic capacity allocation and resource management
- * load balancing in wireless access networks
- * autonomic control for mobility management
- * autonomic control in multi-access terminals
- * autonomic scheduling
- * autonomic fault management and recovery systems
- * autonomic authentication and authorization systems
- * self-adapting security architectures supporting wireless systems
- * policy management for autonomic wireless networks
- * testing, verification and validation principles for autonomic access networks
- * testbeds and measurements of wireless autonomic systems
- * measurements and analysis of measurement for autonomic control in wireless networks
- * feasibility studies and experimental validations on autonomic wireless networks
- * management of autonomic cellular evolution
- * human – machine interface in policy based managing of network
- * what is to be standardized for autonomic wireless access

Deadlines: Full paper submission (6 pages) sometime in January 2007?
 Acceptance ?
 Final papers due:?

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Initial list of Reviewers (not all have agreed)

- Up to TPC (this has additionally about 30 other names, we have not received all acknowledgements yet)