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Ubiquitous Community Wireless Networks: Reality or pipedream? Opportunities, challenges, pitfalls

LANMAN 2008 Panel

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Panelists

- **Timo Bräysy** - Centre for Wireless Communications, University of Oulu, Finland
- **Paul Cullen**, Garderos Software Innovations, Germany
- **Cristian Patachia-Sultanoiu**, Orange, Romania
- **Cornel Pampu**, Huawei Technologies, Germany
- **George Polyzos**, Athens University of Economics and Business, Greece
- **Henning Schulzrinne**, Columbia University, USA

Community Wireless

- Many proposals have been made for Wireless deployment in metropolitan areas in the US and in Europe
 - Driven by municipalities
 - Driven by independent businesses
- Deployments abound and many are operational
 - Success stories in a good number of cases
 - Several situations have not been so successful
- What are the reasons for their successes? Lack of success?
 - Technical Challenges?
 - Business Models?
- What needs to be done to make them successful?
- Do they need to be successful? What are the societal needs, implications and pressures?

Henning Schulzrinne

- Chair, Department of Computer Science, Columbia University
- Fellow of the IEEE
- Ph.D., University of Massachusetts in Amherst, Massachusetts
- Was at AT&T Bell Laboratories, Murray Hill and was associate department head at GMD-Fokus (Berlin)
- Protocols co-developed by him, such as RTP, RTSP and SIP, are now Internet standards, used by almost all Internet telephony and multimedia applications
- Editor of the "IEEE/ACM Transactions on Networking", "ACM Transactions on Multimedia Computing", "ComSoc Surveys & Tutorials" and the "IEEE Internet Computing Magazine", vice chair of ACM SIGCOMM

Paul Cullen

- Co-founder Garderos Software Innovations (2002)
 - Now wholly-owned subsidiary of Nokia-Siemens-Networks
- Degree in Electronic Engineering, University College, Dublin.
- 5 years: software engineer for real-time data acquisition systems for power plants, Siemens Power Generation, Germany.
- 2 years in China as project manager
- Business Development in the Internet Solutions business of Siemens Communications
- Garderos: Software product for policy-based IP routing
 - Carrier-grade access control platform for WiFi and WiMAX networks
 - Deployed by ATT, T-Mobile, Vodafone and large Enterprises.

Timo Bräysy

- Project manager in Centre for Wireless Communications (CWC), University of Oulu.
- Ph.D. in physics from the University of Oulu, Finland.
 - experience in scientific research in space plasma physics and has worked in satellite instrument and software development projects
- 2000-2001, worked as a research scientist in the wireless communications group in VTT Electronics, Finland.
- Currently manages both national and international projects on dynamic spectrum access and cognitive radio networks.
- Research interests include multiple access and networking protocols; topology control in cognitive and autonomous wireless networks
 - special emphasis on constraints set by security and defense application areas.

Cristian Patachia

- Senior Strategic Advisor – Networks, Orange, Romania
- M.S degree in Optical Fiber, Fixed and Mobile Radio Communications from POLITEHNICA University Bucharest
- Managing several projects examining future markets and trends for mobile broadband voice and data services.
 - benchmarking new technologies and developing strategies and architectures based on BWA networks
 - regulatory activities related to spectrum usage
- His research interests include
 - QoS in wireless networks including HSPA, 802.16, 802.11
 - MAC enhancements for hybrid WiMAX – WiFi networks.
- He is an AITR and FITCE member.

Cornel Pampu

- Senior Manager Research, Packet Switched Domain, European Research Center Berlin, Huawei Technologies
 - responsible for European research activities in Packet Switched Domain of mobile networks.
- Degree in Telecommunications and computer networks from Technical University Berlin.
- Previously was at Siemens Communications Mobile Networks and later on at Nokia Siemens Networks
 - led Interoperability Core Control of the Network Operation and Engineering department in the Network Technology division.
 - Was senior Research Engineer in the Packet oriented Architectures group in the Research and Concepts department
 - Was in Research Network IP department in the Wireless Technology business unit: establishment and maintenance of a network with research institutes to analyze and evaluate the IP technology trends towards & beyond 3G systems
 - Member of the Siemens GPRS Product Definition Team.
- Previously was at Ericsson Eurolab Deutschland GmbH

George Polyzos

- Professor of Computer Science, Athens University
 - Leads Mobile Multimedia Laboratory at the of Economics and Business
- Ph.D. in Computer Science from the University of Toronto.
- was Professor of Computer Science and Engineering at the University of California, San Diego
 - was co-director of the Computer Systems Laboratory, member of the Steering Committee of the UCSD Center for Wireless Communications and Senior Fellow of the San Diego Supercomputer Center.
- His group's research includes 3 FP7 projects on Future Internet Architecture:
 - "Publish-Subscribe Internet Routing Paradigm",
 - "Evolved Internet Future For European Leadership" (EIFFEL)
 - "Anticipating the Network of the Future–From Theory to Design" (Euro-NF Network of Excellence)



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Questions from the Audience