

# Advanced Mobile Network Optimisation, 3G, 3G+ and LTE

Getting the Most out of Existing Infrastructure and Achieving Cost-Effective Network Evolution

Berlin, Germany

20th–22nd January 2010

Including a pre-conference half-day workshop:

**Improving Mobile Data Service Performance in 3G+ and LTE Networks**

Led By:

**Ville Laakso**  
VP Consulting  
**Omnitele**

**Rauno Huoviala**  
Manager of Network Development Services  
**Omnitele**

Attending this premier **marcus evans** conference will enable you to:

- **3UK** discuss standards for network planning and optimisation
- **Telecom Italia** on new spectrum issues
- **3GPP** examine new standards for LTE
- **Cable and Wireless** discuss next generation network planning

Learn from Key Practical Case Studies:

- **Examine** the results of operator trials with 3G+ and LTE
- **Delivering** next generation services to subscribers with lower overhead
- **Optimise** your network to handle the increased traffic associated with advanced services
- **Continue** to get the most out of legacy network infrastructure

Silvers Sponsors:



**Operators**  
have to learn about new and different ways  
to manage next

**generation networks**

more efficiently,  
more intelligently and at a lower cost



**marcus evans** Expert Speaker Panel:

**Erol Hepsaydir**  
Director of Radio Solutions Strategy  
**3 UK**

**Adam Kurianski**  
CEO  
**Aero2**

**Ingo Friese**  
Next Generation Network  
Project Manager  
**Deutsche Telekom**

**Konstantinos Halkiotis**  
Principal Engineer  
**Cosmote**

**Zafer Genc**  
Network Optimisation  
**Vodafone Turkey**

**Dr. Wolfgang Geisselbrecht**  
Associate Partner  
**Oliver Wyman**

**Alessandra Fratini**  
Partner  
**Fratini Vergano**

**Stig Olav Naess**  
Technology Advisor  
**Telenor**

**Uwe Loewenstein**  
Spectrum Technology and Regulatory  
Affairs  
**Telefonica O2 Europe**

**Alan Corfield**  
New Technology Introduction  
**Cable and Wireless**

**Giovanni Romano**  
Coordinator for Radio Standards  
**Telecom Italia**

**Niall Murphy**  
Founder and Director  
**The Cloud**

**Adrian Scrase**  
VP International Partnership Projects  
**3GPP**

**Gerardo Gomez**  
Senior Faculty Member LCC Wireless  
Institute  
**LCC International Inc.**

**Amir Lapid**  
Director of Product Management  
**Flash Networks**

**Daniel-Constantin Mierla**  
CEO  
**ASIPTO**

## marcus evans summits

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## marcus evans conferences

Producers of high quality business to business conferences designed to address the strategic information needs of senior executives. Speakers are practitioners from international blue-chip organisations and financial institutions, as well as business schools, academic bodies and government ministries. More than 1,000 conferences take place each year, attracting over 100,000 delegates and 16,000 speakers.

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## marcus evans congresses

**marcus evans** congresses bring together the leading vendors and decision makers from a wide range of services and industries. Each event provides an opportunity for key suppliers to exhibit and demonstrate their products to the region's key professionals. In addition to the exhibition format the event's educational conference is attended only by delegates who are pre-qualified, in most cases to a minimum spend of US\$5 million and many with budgets in excess of \$50 million.

### Half-Day-Pre Conference Interactive Workshop

#### IMPROVING MOBILE DATA SERVICE PERFORMANCE IN 3G+ AND LTE NETWORKS

##### Led by:

**Ville Laakso**  
VP Consulting  
**Omnitele**

**Rauno Huoviala**  
Manager of Network  
Development Services  
**Omnitele**

- 13:30 Coffee and Registration
- 13:50 Workshop Leader's Opening Remarks
- 14:00 **Introduction: Analysis of the Current Baseline 3G+ (HSPA) Network Service Performance**
  - Integrating new capabilities while minimising the impact on service offerings
- 14:40 **Means to Improve Performance, and What is the Expected Impact?**
  - Getting the most out of existing infrastructure: network re-planning / optimisation, configuration / capacity upgrades, traffic control
  - Achieving cost-effective network evolution: technology upgrades to HSPA+ and LTE
- 15:20 Coffee Break
- 15:40 **Feasibility Comparison of the Above Improvement Methods**
  - Understanding practical implementation aspects
  - Making the most of terminal penetration and subvention
  - Assessing cost factors
- 17:00 Workshop Leaders' Closing Remarks and End of Workshop

##### About the Workshop Leader:

**Omnitele Ltd.** is an internationally recognised telecommunications consultancy company providing comprehensive advisory services for mobile operators in Europe, Africa, Middle East and the Caribbean. The company was established in 1988 and is owned by Finnish national telecom operators and an external investor. We offer a wide range of Network and Business Consulting services including mobile network planning and development, new technology implementation, procurement, and operator business development.

We aim to be the leading global telecommunications partner for our customers and achieve it through our most valuable asset, the know-how within our company complemented by the expertise from our shareholders, customers and other strategic partners. Omnitele has 50 consultants with an extensive experience of telecommunications technology, current and future innovations and the required expertise to provide customers with real added value

##### Silver Sponsor:



**LCC**, the largest independent wireless engineering company in the world, is a recognized leader in providing wireless voice and data turn-key services to the telecommunications industry. Our service offering includes **network services, business consulting, TotalView™ tools-based solutions** and training through the world-renowned **Wireless Institute**.

Our company has worked with all major access technologies (including **UMTS, EV-DO, HSDPA, LTE and WiMAX**) and participated in the success of some of the most sophisticated wireless systems in the world. Proudly providing the wireless industry with over 25 years of wireless expertise, LCC continues to be the thought leader in advanced wireless engineering services and remains committed to offering innovative solutions, insight into cutting-edge developments and delivering advanced networking services to its clients.

## 21st January 2010

08:30 Registration and Morning Coffee

09:00 Chair's Opening Address

## NETWORK EVOLUTION AND OPTIMISATION

09:10 Key Note Address

**Planning an Effective Network Evolution and Optimisation Strategy**

- Choosing the optimal way forward for your network
- Planning a rollout of next generation infrastructure
- Achieving new standards for service offerings
- Anticipating the impact of increased mobile data capacity

**Erol Hepsaydir**

Director of Radio Solutions Strategy

3 UK

09:50 Analyst Perspective

**Next Generation Networks – How to Manage Growing Requirements, Exploding Traffic and Increasing Cost Pressure**

- Understanding operators' current and future key network challenges in a cross-functional context
- Exploring value-based network evolution concepts that optimize return on invest and net present value
- Addressing various degrees of network change/deconstruction towards becoming a smart operator
- Identifying key prerequisites for the implementation of sustainable network evolution and change programmes

**Dr. Wolfgang Geisselbrecht**

Associate Partner

Oliver Wyman

10:30 Morning Coffee and Networking

## INTEGRATING NETWORK MANAGEMENT AND IMT ADVANCED

10:50 Operator Case Study

**Solving the Mobile Data Capacity Crunch - Framework for a Multi-bearer Strategy**

- Dealing with dramatic increases in mobile data capacity consumption and network costs.
- Meeting customer expectations for speed and cost without substantially negative financial impacts
- Understanding the network cost implications of mobile data,
- Developing a multi-bearer strategy and operating model in supported by business case scenarios.

**Niall Murphy**

Founder and Director

The Cloud

11:30 Solution Provider Perspective

**Key Features of the LTE Radio Interface**

- LCC Introduction and background
  - Physical layer radio interface basics
  - Key features to improve the QoS on LTE.
- Spectrum flexibility  
-Cross-layer scheduling  
-Link adaptation (AMC)  
-Retransmission procedures (H-ARQ)  
-Adaptive multi-antenna transmission
- Conclusions

**Gerardo Gomez**

Senior Faculty Member LCC Wireless Institute

LCC International Inc

12:10 3GPP Perspective

**LTE Standards and Interoperability**

- Creating a new standard for voice over LTE and ensuring continued interoperability
- Examining the role of IMS in supporting LTE services
- Measuring user experience and maintaining QoS
- Transferring standard TDM services to packet-based networks

**Adrian Scrase**

VP International Partnerships

3GPP

12:50 Lunch

13:50 Coffee and Networking

## OPTIMISING HSP+ SERVICES

14:10 Operator Perspective

**World's First 900MHz HSPA+ Commercial Network**

- Aero2 – A greenfield operator case study
- Understanding the benefits of HSPA+
- An overview of a mobile broadband network rollout
- Examining Aero2's future network strategy

**Adam Kurianski**

CEO

Aero2

14:50 Solution Provider Perspective

**Developing a Network Planning Strategy to Support Mobile Data Services**

- Examining how to manage the challenges that mobile broadband will pose for the engineering mobile networks
- Analyzing current network dimensioning and expansion
- Outlining the network planning and optimization strategy
- Investigating and solving customer complaints

**Amir Lapid**

Director of Product Management

Flash Networks

15:30 Afternoon Tea and Networking

15:50 Panel Discussion

**Next Generation Networks – New Capabilities, New Models – What Do Operators Want to See Next?**

- Developing new business cases for increased data capacity
- Predicting the next services that will define the market
- Achieving balance between capacity and network costs
- Understanding the changing role of the operator

*The panel will be joined by key speakers from both days*

16:30 Chair's Closing Remarks and End of Day Two

Silver Sponsor:



**Flash Networks** is a global provider of intelligent mobile Internet solutions that enable operators to improve quality of experience, reduce network operational expenses, and manage and monetize the mobile Internet. Providing a faster, safer, richer, and more personalized user experience, Flash Networks' Harmony Mobile Internet Services Gateway helps operators achieve significant cost savings through intelligent data traffic optimization, and applies intelligent policies for targeted marketing and charging. For more information, visit [www.flashnetworks.com](http://www.flashnetworks.com)

## 22nd January 2010

08:30 Coffee and Registration

09:00 Chair's Opening Remarks

## 3G OPTIMISATION AND PREPARING FOR LTE

09:10 **Opening Presentation****Optimising Access and Supporting LTE**

- Choosing the right time to upgrade your infrastructure
- Outlining expectations for performance improvement
- A look at trials and current deployments
- Measuring the benefits of network upgrades

**Alan Corfield**

New Technology Introduction

**Cable and Wireless**09:50 **Operator Case Study****An Overview of Spectrum for IMT-Advanced**

- Minimum requirements, capabilities and candidate technologies for IMT-Advanced
- Spectrum for IMT-A including the "Digital Dividend"
- Measuring bandwidth demand for LTE and 4G
- Feasibilities and possible deployments

**Uwe Loewenstein**

Spectrum Technology and Regulatory Affairs

**Telefonica O2 Europe**

10:30 Morning Coffee and Networking

## NETWORK OPTIMISATION AND INTEROPERABILITY

10:50 **Operator Case Study****Telenor Norway: A Mobile Broadband Case Study**

Overview of the current network and capabilities A detailed look at the key drivers for technology transition Technical comparison of HSPA+ versus LTE Developing a mobile broadband strategy

**Stig Olav Naess**

Technology Advisor

**Telenor**11:30 **Operator Case Study****Predicting the Role of Next Generation Repeaters in 3G / 3G+ Optimisation**

- Increasing coverage to offer end users an improved experience
- Ensuring uninterrupted access to data services at home and in building environment
  - Assessing the benefits of signal boosting for QoS and QoE in HSPA network Reducing overall OPEX and CAPEX targets
- Reducing overall OPEX and CAPEX targets

**Konstantinos Halkiotis**

Principal Engineer

**Cosmote**12:10 **Operator Case Study****Optimising the Network for Enabling Technologies**

- Understanding the benefits of exposing the assets of the network through an enabler architecture
- Analysing the advantages of implementing presence and location in a Telco network rather in a pure web environment
- Increasing usability and security by SIM/UICC-based authentication for converged services
- Dealing with the continuously increasing number of identifiers, addresses, numbers and names in services and networks

**Ingo Friese**

Next Generation Network Project Manager

**Deutsche Telekom**

12:50 Lunch

13:50 Coffee and Networking

## OVERCOMING NETWORK LIMITATIONS

14:10 **Operator Case Study****Anticipating the Impact of LTE on Spectrum Standards**

- Making the most of the new spectrum made available by LTE
- Adjusting spectrum strategy to deliver the highest level of service quality
- Addressing coexistence issues between GSM/UMTS and between operators
- Measuring the impact on power consumption

**Giovanni Romano**

Coordinator for Radio Standards

**Telecom Italia**14:50 **Legal Perspective****The Legal and Regulatory Perspective: Challenges and Opportunities for Mobile Operators**

- Spectrum regulation and investment sharing under the new TelecomsPackage: monitoring transposition
- The new GSM Directive and its impact
- The regulatory challenges of fixed-mobile convergence
- "Mobile without Frontiers": the Post- i2010 agenda and its implications for mobile operators

**Alessandra Fratini**

Partner

**Fratini Vergano**

15:30 Afternoon Tea and Networking

## FUTURE NEXT GENERATION NETWORK DEVELOPMENTS

15:50 **IP Specialist Perspective**

- Demands and challenges of SIP for quality communication service
- SIP for Voice and beyond - build scalable new services in 3G+ networks
- Quality of service versus quality of experience
- SIP as bearer for QoS metrics and monitoring data
- What attractive services can be built using SIP
- How SIP can be used to drive the maintenance of networks (e.g., monitoring nodes, capacity, optimizing routes)

**Daniel-Constantin Mierla**

CEO

**ASIPTO**

16:30 Chair's Closing Remarks and End of Conference

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**James Driscoll**, Sponsorship Director, **marcus evans** Stockholmtel: +46 8407 2923, email: [JamesD@marcusevansse.com](mailto:JamesD@marcusevansse.com)**Testimonial:**

*"A great event for professionals to meet and share their experiences to generate synergies for the future of the sector"*

**Past delegate from Turk Telekom**