

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

Zarrar Khan
Network Director
Kuwait Telecom Company – Viva

Ingo Friese
Next Generation Network
Project Manager
Deutsche Telekom

Konstantinos Halkiotis
Principal Engineer
Cosmote

Zafer Genc
Network Optimisation
Vodafone Turkey

Gouri Sankar Chatterjee
Senior Manager RF Planning and
Optimisation
Qtel

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

Mishra Data Sharan
Consultant, Fixed Network
Qtel

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

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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 AND SELF-OPTIMISATION 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**

- Setting effective parameters for automated control
- Incorporating self-optimisation capability in existing network infrastructure
- 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

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

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

Marcel Voolstra

Director of Marketing, Sales and Development

LCC International Inc.

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

OPTIMISING HSP+ SERVICES

14:10 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

14:50 Operator Case Study

Defining Standardising and Optimising 4G/LTE Networks Developing advanced wireless access

- Reaching new levels of connectivity for end-users
- Providing converged services that make the most of network capacity
- Supporting new standards in mobility

Zarrar Khan

Network Director

Kuwait Telecom Company – Viva

15:30 Afternoon Tea and Networking

15:50 Operator Case Study

An Overview of Current Network Optimisation and Monitoring Techniques

- Assessing the extent to which appropriate KPIs and KQIs can effectively support performance monitoring
- Setting appropriate KPIs to measure the performance of your network in terms of coverage
- Monitoring transmission rates, availability, dropped connections - data lag – and data transfer errors
- Achieving optimal service access time and continuity of service

Zafer Genc

Network Optimisation

Vodafone Turkey

16:30 Operator Case Study

3G/HSDPA Radio Planning & Optimisation

- Understanding different 3G+ RAN architectures
- Handling 2G/3G/ and 3G+ network convergence issues
- Understanding the impact of IP networks on RAN architecture
- An overview of current trials and tests to date

Gouri Sankar Chatterjee

Senior Manager RF Planning and Optimisation

Qtel

17:10 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

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 Wireless09:50 **Operator Case Study****Predicting the Role of Next Generation Repeaters in 3G / 3G+ Optimisations**

- 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

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

Telenor11:30 **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

3GPP12:10 **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

12:50 Lunch

13:50 Coffee and Networking

Business Development Opportunities

Does your company have services, solutions or technologies that the conference delegates would benefit from knowing about? If so, you can find out more about the exhibiting, networking and branding opportunities available by contacting our sponsorship division.

James Driscoll, Sponsorship Director, **marcus evans** Stockholm
tel: +46 8407 2923, email: JamesD@marcusevanse.com

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 Italia14:50 **Operator Case Study****Defining Standardising and Optimising 4G/LTE Networks**

- Developing advanced wireless access
- Reaching new levels of connectivity for end-users
- Providing converged services that make the most of network capacity
- Supporting new standards in mobility

Mishra Data Sharan

Consultant, Fixed Network

Qtel

15:30 Afternoon Tea and Networking

FUTURE NEXT GENERATION NETWORK DEVELOPMENTS

15:50 **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 Cloud16:30 **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

17:10 Chair's Closing Remarks and End of Conference

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 Telecom