REAL WORLD CHALLENGES OF TODAY

Monday, 3 November, 2014 – Day One

9:00  Chairman’s opening remarks
Joe Madden, Principal Analyst, Mobile Experts

09:10  **Keynote address: how is Orange leading innovation in an era of high speed and high capacity demands?**
- LTE deployment in the Orange Group
- Orange technical strategy for the evolution of the radio access
- Orange point of view regarding 5G
- Orange activities in NGMN
Rémi Thomas, Director of the NGMN Project, Orange

09:35  **Keynote address: the dawning of the terabit era – innovative strategies to tackle real world challenges of the RAN**
- How are KDDI meeting enormous capacity requirements?
- In what form will the RAN of the future exist?
Fumio Watanabe, Chairman of the Board of Directors - KDDI R&D Laboratories Inc.

10:00  **Tackling the challenges of multi-RAT evolution**
- Examining the functions of multi-RAT radio access networks
- User devices in multi-RAT
- Intelligent management of heterogeneous infrastructures and Ultra-Dense Networks
Please contact nick.webb@avrenevents.com for speaking opportunities

10:20  **Assessing the evolution of the RAN - how are Deutsche Telecom gearing up to meet the demands of future RAN architecture?**
- What is the state of the RAN today?
- Examining the requirements of RAN architecture to ensure optimised operations, higher efficiency and enhanced performance
- How will network virtualisation transform the RAN and what are the cost implications for operators?
- Realising the full potential of new technologies for RAN optimisation
- Evaluation of Centralised Cloud-based RAN, CoMP schemes, Dynamic Spectrum Allocation, Backhaul/Fronthaul
- Defining the overarching requirements for a Multi-RAT architecture evolution
Kostas Chalkiotis, Vice President Mobile Access - Group Technology, Deutsche Telekom

10:45  **Vodafone Netherlands – our journey in delivering best in class customer experience**
- How did we develop/optimize our radio network to boost customer experience?
- Focussing on quality whilst introducing LTE
- Using innovations (like small cells, active antennas, SON) to deliver best in class quality?
Matthias Sauder, Head of Network, Vodafone Netherlands
11:10 Is the RAN a commodity, a utility or your competitive advantage?  
James Tagg, CTO, Truphone

11:30 COFFEE BREAK

12:00 3GPP RAN update: work on small cells/heterogeneous networks for Release-12 and beyond  
Giovanni Ramano, Vice-Chairman, 3GPP TSG RAN

12:20 Panel discussion: RAN sharing & roaming agreements – making smarter investments  
- Examining new commercial operating models  
- Roaming agreements including national roaming agreements  
  James Tagg, CTO, Truphone  
  Iain Stanbridge, Principal Network Architect, EE

12:50 Cost assessment of next generation RAN deployments  
- Analysis of the performance versus costs trade-off for different RAN deployments  
- Comparing different technology options  
- Cost per bit – analysing the implications of different choices  
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13:10 EU situation - requirement for additional license-exempt spectrum  
- Unlicensed spectrum and innovation  
- EU high-level policy objectives on broadband  
- WiFi and cellular integration  
- Expanding the Unlicensed use of the 5 GHz band  
- TV White Spaces – additional unlicensed spectrum  
- Analysis of regulatory trends elsewhere and potential breakthroughs on spectrum management (Harm Claim Thresholds & FCC)  
  Dr. Paulo Marques, Senior Research Engineer, Instituto de Telecomunicações – Aveiro; Chairman of the European Commission Radio Access and Spectrum Cluster

13:30 LUNCH

13:30 Research Centre poster panel sessions  
R&D academics and EU Funded projects have the opportunity to present poster on latest findings and technological innovations during the lunch hour

Confirmed poster panels:  
Andreas Eisenblatter, Project presenter, SEMAFOUR - Self-Management for Unified Heterogeneous Radio Access Networks  
Decision Support System for Operational Network Evolution

Ulrich Türke, Project presenter, SEMAFOUR - Self-Management for Unified Heterogeneous Radio Access Networks  
SONLAB: Multi-Party SON Simulation Platform

Laurent Dussop, Coordinator, MiWaveS - Beyond 2020 Heterogeneous Wireless Network with Millimeter Wave Small Cell Access and Backhauling

14:30 Working Groups running in parallel
LTE & LTE ADVANCED WORKING GROUP
Lead by Adrian Scrase, Head of Mobile Competence Centre, 3GPP
Guest speakers:
Giovanni Romano, Coordinator of Radio Standards, Telecom Italia
Paulo Marques, Chairman of the European Commission Radio Access & Spectrum Cluster
Rino Buccio, Chief Technology Officer, Linkem

MULTI TECHNOLOGY INTEGRATION WORKING GROUP
Lead by: Kostas Chalkiotis, Vice President Mobile Access - Group Technology, Deutsche Telekom
Guest speakers: Thomas Magedanz, Head of NGNI Competence Center, Fraunhofer FOKUS
Iain Stanbridge, Principal Network Architect, EE
Rida Zouaoui, Head of Access Networks and systems Standardization, Orange

ANTENNA TECHNOLOGY WORKING GROUP
Lead by Joe Madden, Principal Analyst, Mobile Experts
Guest speaker: Dr. Chih-Lin I, Chief Scientist of Wireless Technologies, China Mobile Research Institute, CMCC

BACKHAUL/FRONTHAUL WORKING GROUP
Lead by Earl J Lum, President, EJL Wireless Research
Guest speakers: Henrik Abramowicz, Action Leader, EIT ICT Labs Germany GmbH - European Institute of Innovation and Technology

16:15 COFFEE BREAK

REAL WORLD OPERATOR CHALLENGES

16:45 Deutsche Telekom group experience in RAN software harmonization and the relevant synergy effects
- Challenges of common approach implementation across borders
- Achievements in strategy harmonization across technologies
- Opportunities opened beyond engineering via the harmonization
  Attila Zsiborás, Head of RAN Shared Service Center, Deutsche Telekom

17:05 Radio Solution for Highest-Capacity Deployments and Serving Mass Events
- Traffic profiles in mobile networks
- The uplink challenge in loaded networks
- Massive traffic and how to serve the end-user
  Markus Fessler, Head of LTE Business Development, Nokia Networks, MBB-Mobile Broadband Business Line

17:30 Panel discussion: multi-RAT mobile backhaul for HetNets
- Understanding capacity requirements for current and future backhaul
- Multi-RAT and multi-vendor backhaul
- Evolving backhaul architecture to support the demands of new technologies in future radio access networks
  Moderated by: Earl J Lum, President, EJL Wireless Research
  Henrik Abramowicz, Action Leader, EIT ICT Labs Germany GmbH - European Institute of Innovation and Technology

18:00 End of Day One
CHALLENGES OF TOMORROW

Tuesday, 4 November, 2014 – Day Two

9:00  Chairman’s opening remarks  
Sue Rudd, Director Service Provider Analysis, Strategy Analytics

09:10  Keynote Address: how is the fundamental architecture of wireless networks changing - building sustainable Cloud Radio Access Networks  
Dr. Chih-Lin I, Chief Scientist of Wireless Technologies, China Mobile Research Institute, CMCC

09:35  Keynote panel discussion: in what form will the RAN of the future exist?  
Dr. Chih-Lin I, Chief Scientist of Wireless Technologies, China Mobile Research Institute, CMCC  
Luke Ibbetson, Chief Engineer - Group R&D, Vodafone  
Michael Lemke, Wireless CMO DT KAD, Huawei Technologies Deutschland

10:00  Keynote address: bringing unparalleled network performance to users through LTE-Advanced  
Please contact nick.webb@avrenevents.com for speaking opportunities

5G THEATRE

10:25  Keynote address: Vodafone 5G update  
Luke Ibbetson, Chief Engineer - Group R&D, Vodafone

10:40  Keynote address: crucial technology developments in the evolution to 5G  
Changsoon Choi, Senior Manager in ICT R&D Division, SK Telecom

11:00  COFFEE BREAK

11:30  Guest Speaker: Dresden 5G Lab  
Dr. Frank Fitzek, Author of Mobile Clouds - Exploiting Distributed Resources in Wireless, Mobile and Social Networks; Representative, Dresden 5G Lab

12:00  European Commission Initiatives: towards 5G leadership in the Digital Single Market  
Dr. Bernard Barani, Deputy Head of Unit, Network technologies, DG CONNECT; Assistant to the Director, European Commission

12:30  5G a year-on update from ETSI  
Adrian Scrase, CTO, ETSI

13:00  LUNCH

Research Centre poster panel sessions  
R&D academics and Engineers have the opportunity to present posters on the latest findings and technological innovations during the lunch hour

Confirmed poster panels:  
Dr. Gerhard Wunder, Coordinator and principal investigator, FP7 Call 8 project 5GNOW

Dr. Carlos Bocks, Coordinator, SODALES - Software-Defined Access using Low-Energy Subsystems
Albert Banchs, Coordinator, iJOIN - Interworking and JOINt Design of an Open Access and Backhaul Network Architecture for Small Cells based on Cloud Networks

Sören Hahn, Project presenter, SEMAFOUR - Self-Management for Unified Heterogeneous Radio Access Networks
Integrated SON management

Hendrik Hoffmann, Project presenter, SEMAFOUR - Self-Management for Unified Heterogeneous Radio Access Networks
Dynamic spectrum allocation

14:00  Working groups running in parallel

### 5G WORKING GROUP

Lead by Shahram Niri, General Manager - 5GIC

**Guest speakers:** Dr. Mischa Dohler, Head, Centre for Telecom Research; Chair Professor, Fellow & Distinguished Lecturer, IEEE King’s College London
Dr. Hans Schotten – University of Kaiserslautern, Germany; METIS2020
Dr. Gerhard Wunder, Coordinator and principal investigator, FP7 Call 8 project 5GNOW
SK Telecom speaker to be confirmed

### CLOUD RAN WORKING GROUP

Lead by Monica Paolini, President, Senza Fili Consulting

**Guest speakers** TBC

### SMALL CELLS & SON WORKING GROUP

Lead by Caroline Gabriel, Research Director, Rethink Technology Research Ltd

**Guest speakers** TBC

16:15  COFFEE BREAK

### THE MOVE TOWARDS IN-BUILDING

16:45  **Wi-Fi technology** - achieving carrier grade QoE with Wi-Fi

- Exploring WBA HotSpot 2.0 solutions and more widely applicable Wi-Fi management systems
- Managing customer experience in a HetNet environment
- Wi-Fi as an extension of LTE indoors
- Wi-Fi evolution to carrier grade Wi-Fi
  
  Rida Zouaoui, Head of Access Networks and systems Standardization, Orange

17:10  **Small cell technology case study: what does the future eco-system of in-building wireless look like?**

- What new business models are emerging as we see increased convergence of DAS and small cells?
- How is BYOD driving enterprise spending on wireless solutions?
- Who are today’s key market players and how has that shifted over time?
  
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17:30  **Panel discussion: exploring the trend towards in-building – the “bring your own” business model**

- Responding to the growing pressure from building owners for better in-building solutions
- The move towards building owners paying and/or co-operating with in-building deployment
- Indoor multi-mode (3G, 4G, Wi-Fi) and “bring your own network” business model
- How a unique alliance of DAS vendors and small cell players is promoting this new business model?
• Deployment methods, planning tools, skillets
• Outsourcing including neutral host/network sharing options

Moderated by: Sue Rudd, Director Service Provider Analysis, **Strategy Analytics**
Monica Paolini, President, **Senza Fili Consulting**
Caroline Gabriel, Research Director, **Rethink Technology Research Ltd**
Joe Madden, Principal Analyst, **Mobile Experts**

17:00 Chairman’s closing remarks

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**Speakers confirmed**

Dr. Bernard Barani, Deputy Head of Unit, Network technologies, **DG CONNECT**; Assistant to the Director **European Commission**
Fumio Watanabe, Chairman of the Board of Directors - **KDDI R&D Laboratories Inc.**
Dr. Chih-Lin I, Chief Scientist of Wireless Technologies, **China Mobile Research Institute**
Luke Ibbetson, Chief Engineer - Group R&D, **Vodafone**
Matthias Sauder, Head of Network, **Vodafone Netherlands**
Kostas Chalkiotis, Vice President Mobile Access - Group Technology, **Deutsche Telekom**
Attila Zsiborás, Head of RAN Shared Service Center, **Deutsche Telekom**
Rémi Thomas, Director of the NGMN Project, **Orange**
Giovanni Romano, Coordinator of Radio Standards and 3GPP TSG RAN Vice-Chairman, **Telecom Italia**
Iain Stanbridge, Principal Network Architect, **EE**
Changsoon Choi, Senior Manager in ICT R&D Division, **SK Telecom**
Michael Lemke, Wireless CMO DT KAD, **Huawei Technologies Deutschland**
James Tagg, Chief Technology Officer, **Truphone**
Rino Buccio, Chief Technology Officer, **Linkem**
Dr. Frank Fitzek, Professor, Department of Electronic Systems, University of Aalborg; Senior Representative, **Dresden 5G Lab**
Dr. Mischa Dohler, Head, Centre for Telecom Research; Chair Professor, Fellow & Distinguished Lecturer, **IEEE King’s College London**
Dr. Hans Schotten – **University of Kaiserslautern**; Member, **METIS 2020**
Markus Fessler, Head of LTE Business Development, **Nokia Networks, MBB-Mobile Broadband Business Line**
Shahram Niri, General Manager - 5GIC (5G Innovation Center), **University of Surrey**
Adrian Scrase, CTO, **ETSI**
Rida Zouaoui, Head of Access Networks and systems Standardization, **Orange**
Dr. Paulo Marques, Senior Research Engineer, **Instituto de Telecomunicações – Aveiro**; Chairman of the **European Commission Radio Access and Spectrum Cluster**
Dr. Gerhard Wunder, Coordinator and principal investigator, FP7 Call 8 project **5GNOW**
Dr. Thomas Magedanz, Head of NGNI Competence Center, **Fraunhofer FOKUS, TU Berlin**
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