

Mobile Broadband SIG

'LTE Evolution - Five years on - The Promise, Reality and Future'

29th May 2014

Kindly hosted by GSMA

*This SIG is championed by **George Grayland** of **Nokia Solutions and Networks**, **Peter Montgomery** of **GSMA**, **Tom Rebbeck** of **Analysys Mason** and **Iain Stanbridge** of **EE***

Venue: GSMA, 7th Floor, 5 New Street Square, London, EC4A 3BF

AGENDA

13:30 Registration & Networking over Tea/Coffee (*please note no lunch provided*)

14:00 Introduction to the Cambridge Wireless Mobile Broadband SIG from **George Grayland** of **Nokia Solutions and Networks**

14:10 Welcome from our host, **GSMA**

Session Chaired by Tom Rebbeck of Analysys Mason

14:15 "A Brief History of LTE"
Dan Warren, Senior Director of Technology, GSMA

When the first network launched LTE in 2009, it was the culmination of what had already been a long journey through technical standards bodies and a considerable marketing storm. From that first launch onwards, however, LTE has been on a path of success, albeit with challenges that remain at large. In this presentation, Dan Warren will take you through a potted history of LTE, look at what remains to be done, and where we might go next, through continued LTE deployment, LTE-Advanced and the advent of 5G (whatever that might be).

14:35 Q&A

14:40 "LTE Evolution towards Vision 2020".
Harri Holma of Nokia Solutions and Networks

This presentation will illustrate advanced solutions for enhancing LTE and LTE-Advanced performance to fulfill NSN Vision 2020, including up to 1000x more capacity. It will cover key techniques like smart packet scheduling, liquid applications, carrier aggregation, small cells and advanced antenna solutions.

15:00 Q&A

15:05 **Coffee/Tea & Networking**

Session Chaired by Iain Stanbridge of EE

15:35 "LTE: Changing the Face of Newsgathering"
Richard Pattison, Deputy Head of News Technology, BSkyB

News organisations have been delivering video files across cellular networks for some time and over the last 5 years live mobile video has been the nirvana. Bonded 3G delivered some successes but it was unreliable. Only since the advent of 4G cellular networks, in conjunction with maturing broadcast products, has live mobile video been a viable option. It is changing the way we can deliver news today but as 4G usage increases, is it a sustainable option?

15:55 Q&A

16:00 "Global LTE Trends: As Momentum to 4G Accelerates, Successful Strategies Emerge"
Dario Talmesio, Principal Analyst, Informa Telecoms and Media

As global LTE deployments and customer uptake accelerates, we look at how consumer behaviour and mobile operators' KPIs are affected by 4G technology. Is there an emerging trend in services and what does future hold for 2014 and beyond?

16:20 Q&A

16:25 Open Forum with all speakers chaired by **Peter Montgomery** of **GSMA**

17:10 **Fill in Evaluation Forms and Event Closes**

With the permission of the speakers, presentations will be loaded to the Cambridge Wireless website on the day following the event

Profile of Organiser

Cambridge Wireless (CW)

CW is the leading international community for companies involved in the research, development and application of wireless & mobile, internet, semiconductor and software technologies. With 400 members from major network operators and device manufacturers to innovative start-ups and universities, CW stimulates debate and collaboration, harnesses and shares knowledge, and helps to build connections between academia and industry. CW's 20 Special Interest Groups (SIGs) provide its members with a dynamic forum where they can network with their peers, track the latest technology trends and business developments and position their organisations in key market sectors. CW also organises the annual Future of Wireless International Conference and Discovering Start-ups competition along with other high-quality industry networking events and dinners. With headquarters at the heart of Cambridge, UK, CW partners with other international industry clusters and organisations to extend its reach and remain at the forefront of global developments and business opportunities. For more information, please visit www.cambridgewireless.co.uk

Profiles of SIG Champions

George Grayland, Nokia Solutions and Networks

George Grayland is a Senior Wireless Solutions Manager with Nokia Solutions and Networks. George joined Nokia Networks in 1998 and has held positions in both Product Management and Technical Sales for GSM, WCDMA and LTE networks. After periods working with Operators such as Telefonica and Deutsche Telecom on 3G, he is now based in the UK and is responsible for Mobile Broadband Networks Solutions working with two of the UK's larger MNOs as they plan their 4G network deployments. Prior to Nokia and NSN George held various positions at Philips Electronics in both R&D and Technical Marketing. He has a BEng. in Electrical and Electronic Engineering from the University of Bradford and is a Member of the IET. For more information please visit: www.nsn.com

Peter Montgomery, GSMA

Peter currently leads strategic partnership activities for the GSMA. He works with key stakeholders in the mobile telecoms market to collaborate on GSMA led industry initiatives with the aim of facilitating and triggering market expansion, enabling scale and fostering innovation. In turn lowering the barriers to widespread adoption of technologies such as mobile broadband and enabling new emerging solutions such as embedded mobile to gain a sure foothold. Having acquired a degree in Electrical and Electronic Engineering from Birmingham University, Peter moved swiftly into the commercial world where he led marketing and business development activities at Marconi, Symbian and then Nokia before arriving at the GSMA. For more information please visit: www.gsmworld.com

Tom Rebbeck, Analysys Mason

Tom is the Research Director at Analysys Mason, and has responsibility for the definition, delivery and management of its consumer telecoms research activities. Prior to returning to Analysys Mason, Tom was a Global Project Manager for Telefónica where he was involved in the launch of a number of mobile content services and applications across the Telefónica footprint. Before this, he was Principal Analyst for Analysys Mason, and worked on numerous client projects. For more information please visit: www.analysysmason.com

Iain Stanbridge, EE

As Principal Network Architect in EE's Network Strategy team, Iain is accountable for the evolution of EE's radio access network and spectrum strategy. Iain has been heavily involved in EE's 4G network plans and the 2013 spectrum auctions. He works closely with stakeholders in EE's operation and partners in the mobile ecosystem to develop new opportunities for the mobile network. Iain has held a number of Design, Architecture and Strategy roles in Orange UK and France Telecom Group, spanning radio and core networks. Prior to joining Orange, Iain worked for Siemens Research at Roke Manor. He has an MEng in Electrical and Electronic Engineering from the University of Birmingham and an MSc in Strategic Management from the University of Bristol. For more information please visit: www.ee.co.uk

Profiles of Speakers

Dan Warren, Senior Director of Technology, GSMA

As Senior Director of Technology at the GSMA, Dan Warren is a technology subject matter expert across all of the GSMA's Project and Working Groups and key spokesperson for the GSMA. Dan currently leads the GSMA's definition of Voice over LTE (VoLTE) for the global industry, as well as being a lead technology expert on Rich Communications and all IMS-based projects, Embedded Mobile and Wi-Fi Roaming.

Dan is a recognised industry expert on the Mobile Broadband market and all aspects of technical implementation, and is a regular spokesperson at conferences including Mobile World Congress, CTIA and the LTE World Series.

Dan has written columns for Connected Planet and RCR Wireless, is regularly quoted in Tier 1 and industry press, and was listed in Global Telecoms Business 'Top 40 Under 40' for 2009, 2010 and 2012.

Since joining the GSMA in 2007, Dan has led projects and initiatives on IP-based Interconnect, Application Awareness and Quality of Service, and was also the GSMA lead standards delegate, regularly attending 3GPP and tracking activity across other industry groups, until the end of 2011.

Prior to the GSMA, Dan worked as a network architect and standards engineer at Vodafone and in standards, technical marketing and product management roles at Nortel. Dan holds a PhD in Applied Mathematics and a degree in Mathematics. For more information please visit: www.gsmworld.com

Harri Holma, NSN Fellow - Radio System Performance, Nokia Solutions and Networks, Finland

Harri Holma joined Nokia Research Centre in 1994 and received his MSc. He has been with Nokia Networks since 1998 and has been located both in Finland and in USA during that time. He is currently working as NSN Fellow with Nokia Solutions and Networks with special interest in radio system performance. He has completed his PhD at Helsinki University of Technology 2003. Dr Holma has edited the books "WCDMA for UMTS", "HSDPA/HSUPA for UMTS", "LTE for UMTS", "LTE-Advanced" and "Voice over LTE" and contributed to a number of other books in the radio communication area. For more information please visit: www.nsn.com

Richard Pattison, Deputy Head of Technology, Sky News

After spending the earlier part of his career in IT Service Management, Richard took an opportunity to join the fledgling Technology team at Sky News in 2007. Starting at the operational end of the team he had the chance to work with some early advocates for digital newsgathering and learn as the speciality grew and developed. Now leading the R&D side of the team he is responsible for keeping Sky News at the forefront of technological developments and first for breaking news. For more information, please visit www.corporate.sky.com

Dario Talmesio, Principal Analyst, Informa Telecoms and Media

Dario Talmesio is a Principal Analyst with Informa Telecoms & Media. He leads the fixed and mobile Telecoms European team and has a key focus on the market developments and competitive dynamics of the European markets.

In his role Dario advises fixed and mobile operators, in key areas of their business including competitive issues, OTT strategies, New business models, MVNO and retail strategies.

He began his Analyst career at the Economist Intelligence Unit of the Economist Group where he analyzed Energy and Telecom markets in Western European countries. Prior to working at Informa, Dario worked for the Yankee Group as an EMEA Mobile Consumer analyst based in London.

Dario holds a degree in Business and Economics from the Universita' Cattolica of Milan and an MA in Applied Social and Market Research from the Westminster University in London. For more information, please visit www.informa.com

Delegate List		
Name	Organisation	Company Profile
Colin Abrey	Zinwave	Zinwave is a global provider of wideband active DAS technology for in-building wireless coverage
Waqas Ahmed	BSKB - Sky	Sky is a media transmission and a telecoms company. I work for Product Design and Development dept.
Colin Aitken	NextG-Com limited	Expert cellular protocol stack technology development company, specialising in LTE.
Ahmed Aldabbagh	Ofcom	UK Telecom Regulator
Zaid Al-Daher	WORIC - University of South Wales	Research and development in wireless technologies
Iris Barcia	Keima	Software Engineering
Milan Bavis	Nokia	Mobile Broadband Infrastructure and services organisation
Ashley Benn	Codenomicon	World-proven Cyber security solutions for both the builders & buyers of IT & comms systems
Damian Bevan	DBAF Consulting Limited	System analysis, algorithm design and simulation software in wireless technology
Toby Bond	Bird & Bird LLP	
Fiona Booker	Anritsu	Test & Measurement Manufacturer

Alastair Brydon	Unwired Insight Ltd	Advising companies on wireless telecommunications technologies, spectrum and services.
John Burns	Aegis Systems Ltd	Spectrum management and engineering consultancy
Charles Chambers	Real Wireless	Independent Wireless Thought Leaders
Kun Chen	University College London	University College London
Weng Chooi	BT Plc	Fixed, broadband, Wireless, Ethernet, Media & Broadcast provider
Phil Claridge	JDSU	
David Cooper	3GWave Ltd.	
Anthony Dunne	Arqiva	
Martin Dutton	Accenture	A multinational management consulting, technology services, and outsourcing company
John Edwards	Edwards & Co	Law firm
Andrew Entwistle	New Street Research	
Andrew Evans	u-blox UK	
Simon Fletcher	NEC Telecom Modus	SIG CHAMPION
Tim Fowler	Cambridge Consultants Limited	
Daniel Fox	British Sky Broadcasting Ltd	Media and Telecommunications
Rob Furlong	KTN-UK	
Peter George	Woodhall Marketing Ltd	
Zahid Ghadialy	eXplanoTech Ltd	SIG CHAMPION Technical consultancy, Technical trainings and Managed services in wireless telecoms
Peter Gould	Multiple Access Communications Ltd	Consulting and product development company specialising in mobile radio communications
Paul Grant	ATDI	Radiocommunications software planning and consultancy
George Grayland	Nokia	SIG CHAMPION
Antoine Grenier	Deloitte	Professional services
Tim Harris	Bird & Bird	Law Firm
Andrew Hobbs	Airspan Networks	LTE infrastructure vendor
Harri Holma	Nokia Solutions and Networks	
David Hugman	Arqiva	Network Operator / Facilities Provision and Management
Marc Ibanez	Vilicom	We specialise in design, testing, optimisation, analysis and strategy for RF and cellular networks
Soraya Jones	Cambridge Wireless	
Jussi Kahtava	Sony Europe	
Charalampos Kalatzis	Aeroflex	Manufactures test and measurement products
Triantafyllos Kanakis	eXplanoTech	Technical Consulting, Technical Training, Managed Service, Resourcing and Recruitment
Mohammad Khatib	Netinteg Solutions	
Kit Kilgour	ip.access	ip.access is the leading provider of 2G, 3G and LTE small cell systems, with over 1M cells deployed
Kamran Kordi	Nokia	
Rick Kundi	Microlease	
Dharmendra Lad	Cambridge Consultants Ltd	Wireless R&D Product Development
Behrooz Lessani	5BARz International	
Alun Lewis	LTE Today	PRESS

Robert Little	Atkins	
Jingjing Liu	Ofcom	Regulator
Colin Long	Bird & Bird	
Ross Macindoe	Airwave	
Paul Martin	Plextek Consulting	Technology Consultancy
Tim Masson	Agilent Technologies	
George Matich	Selex ES Limited	Selex ES is system solution provider to the global Aerospace & Defence Domain
Steve Methley	Quotient Associates Ltd.	Communications, networks and spectrum consultants. Licence exemption, location, virtualisation.
Tim Miller	Plum Consulting	
Pete Montgomery	GSMA	SIG CHAMPION
Alain Mourad	InterDigital UK	
Peter Myers	Smith Myers Communications Ltd	Test and Measurement, SDR and Protocols
Aditya Naidu	Accenture	Management Consulting Services
Anh Ngo	Southampton University	Research & Education
Hung Nguyen	University of Southampton	The University of Southampton, Communication Signal Processing and Control Group
Matthew Noble	Bird & Bird LLP	IP Specialist Law Firm
Paul Nodar	Sapura plc	Safety Critical Communications
Temitope Odedeyi		
Gerard O'Neill	Angetech Consultants Ltd	
John Parker	Transfinite Sytems	Interference analysis and spectrum management software product developer and consultancy
Richard Pattison	Sky News	
Ken Pearson	Pensa Consulting	Pensa supports operators and regulators with spectrum licensing, and auction design and strategy.
Tim Phipps	Cambridge Consultants	SIG CHAMPION Product Development Consultancy
Seshaiah Ponnekanti	NEC Telecom MODUS	Small cells R&D in LTE, Systems Integration, Delivery
Khurram Qayam	Net-Integ Solutions	Provides technical consultancy to telecoms operators and vendors
Kannan Ratnasingham	Sharp Telecommunications of Europe	
Tom Rebbeck	Analysys Mason.	SIG CHAMPION
Thomas Rettner	Accenture	Accenture is a global management consulting, technology services and outsourcing company
Leo Romanenko	Accenture	Accenture is a global management consulting, technology services and outsourcing company.
Christian Rouffaert	Accenture	
Dipayan Roy	Dipayan Roy Associates	Global HR Consulting and Advisory firm, getting results across HR value chain from Recruit to Retire
Nihal Samaraweera	Airwave Solutions	
Hashim Sirhindi	MediaTek	
Iain Stanbridge	EE	SIG CHAMPION
Andy Sutton	EE	SIG CHAMPION Mobile Network Operator
Dario Talmesio	Informa Telecoms and Media	
Kumi Thiruchelvam		

James Thompson	Accenture	Global management consulting, technology and outsourcing company
Ben Timmons	Qualcomm	
Paul Tindall	Sapura	
John Townsend	Angetech consultants	Telecoms Consultancy
Ken Uematsu	Marubeni Europe	
Paolo Ursino	ConneXM	
Geoff Varrall	RTT	BOARD MEMBER
Dan Warren	GSMA	
Prof. William Webb	Weightless SIG	BOARD MEMBER
Steffen Winter	MediaTek	
Nicholas Wootton	BSkyB	