

6<sup>th</sup> November 2014

This event is hosted by Aon UK Limited

This SIG is championed by Dev Audsin of **Orange**, Tim Cook of **Arqiva**, Russell Inman of **BBC Technology, Distribution & Archive**, Chris Nokes of **BBC Research & Development** and Sami Susiaho of **BskyB**.

Venue: Aon UK Limited, 5<sup>th</sup> Floor, 10 Devonshire Square, London, EC2M 4PL

### AGENDA

**13:30 Registration & Networking over Refreshments** (please note: no lunch provided)

**14:00** Introduction to the Cambridge Wireless Digital Delivery and Content SIG from **Chris Nokes** of **BBC Research and Development**

Session chaired by Dev Audsin of Orange

**14:10 "Low Power DAB Transmission"**  
**Peter Willison**, Head of Technology Radio, **Arqiva**

The growth of DAB in the UK has led to the requirement for a transmission solution that provides an efficient means of covering smaller geographic areas whilst providing flexibility of installation and operation. Peter will introduce a novel approach which may provide the solution.

**14:30** Q&A

**14:35 "Digital Radio in all its Variations"**  
**Lindsay Cornell**, Principle Systems Architect, **BBC**

In the UK, digital radio usually means DAB, but 'other digital radio solutions are available'. This presentation will explore the development of digital radio systems, both terrestrial and satellite, considering motivation, design approach and standardisation issues and take a look at the deployment of digital radio around the world.

**14:55** Q&A

**15:00 Refreshments & Networking**

Session chaired by Sami Susiaho of BskyB

**15:35 "The Drive to Digital"**  
**Laurence Harrison**, Director, **Digital Radio UK**

As we continue to build a multi-platform digital future for radio there are many opportunities and challenges. Ranging from a potential switchover to digital radio in connected cars and engaging younger listeners, Laurence will cover some of the big issues for the radio industry in a digital world.

**15:55** Q&A

**16:00 "Technology, Ecosystem and the Re-definition of Radio"**  
**Pablo Fraile**, Head of Product Marketing, Broadcast, Connected and Hybrid Products, **Frontier Silicon**

In recent years new technologies have emerged in the lives of radio listeners – digital content delivery, user experiences in their smart devices, home and car connectivity. These are transforming what radio means to them, and so it should for the industry. To thrive in this new environment, it is essential to embrace new technologies but also to keep in perspective the intense cultural, economic and political forces at work in the industry.

**16:20** Q&A

**16:25** Panel Session with all speakers chaired by **Chris Nokes** of **BBC Research and Development**

The speakers will be joined on the panel by **Ian O'Neill**, Programme Director, Radio and Head of Radio Policy from the **Department for Culture, Media and Sport**

**17:00** 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 Organisers

### About 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 19 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](http://www.cambridgewireless.co.uk)

## Profile of Host

### Aon UK Limited

Aon is the UK's largest insurance broker (Insurance Times, August 2013) and provider of risk management services. The products and services they deliver are built around their clients' unique needs and provided by professionals with extensive expertise in both their industries and local markets.

Aon gather the best thinking from around the world and then deliver solutions locally. Aon was voted "National Broker of the Year" by Insurance Times in both 2011 and 2012. For further information, please visit [www.aon.com](http://www.aon.com)

## Profiles of SIG Champions

### Dev Audsin, Senior Research Engineer, Orange

Dev Audsin is a Senior Research Engineer at Orange, working on advanced R & D projects related to next generation mobile communications. Prior to this, he was a Research Scientist at Hewlett Packard. Before moving to the industry, Dev worked as a Research Associate at the Centre for Telecommunications Research, King's College London. Dev holds a PhD in Telecommunications from King's College, University of London. Dev is in the core scientific and technological R & D since 2002 and was a member of a number of successful European Commission sponsored FP6 and FP7 ICT projects. For further information, please visit [www.orange.co.uk](http://www.orange.co.uk)

### Tim Cook, Head of Strategic Business Development, Arqiva

Tim is currently Head of Strategic Business Development for the Terrestrial Broadcast Division of Arqiva. Prior to his current position he completed 18 years at BT, where he was a Board Director of a 50:50 JV with France Telecom to provide in-flight telephony. Since then he has various held roles at Nortel, Equant (now Orange Business Services) and with a USA satellite solutions company. His current focus is on addressing the requirements of existing and new entrant content providers utilising complementary/new platforms. For more information please go to: [www.arqiva.com](http://www.arqiva.com)

### Russell Inman, Senior Network Architect, BBC Technology, Distribution & Archive

Prior to joining the BBC, Russell launched a consultancy practice in 2011 and was a technology consultant operating in the broadcast and wireless sectors. Prior to that, Russell was with Arqiva - a communications and media services company providing infrastructure for the broadcast, mobile communications and satellite markets - where he held the post of Technology Director. Before joining Arqiva, he worked for the BBC, Crown Castle International and National Grid Wireless. He has led, and been a key member of, teams which have developed new products and platforms in sectors such as digital TV, mobile TV, 3G and Smart Metering. At Crown Castle, he was a member of the Freeview launch team working directly with Crown Castle's launch-partner companies; BBC and BSkyB. He served as Vice-President, Engineering at Modeo which pioneered a mobile TV service in New York.

Russell is a Chartered Engineer and holds an Upper Second Class Honours Degree in Electronic Engineering. He is a Fellow Member of the Institution of Engineering and Technology. For further information, please visit [www.bbc.co.uk](http://www.bbc.co.uk)

### Chris Nokes, Principal R&D Engineer, BBC

Chris is Head of Distribution Core Technologies Section at BBC Research & Development. With over twenty-five years' experience in Broadcasting R&D, Chris has been involved in the development of digital television since 1994, including as a key contributor to the DVB-T2 technical study group, and editor of the DVB-T2 specification. He is also Chair of the RF Group of the UK Digital Television Group (DTG). The work of Distribution Core Technologies Section includes projects investigating broadcasting to mobile devices, the next generation of wireless cameras, TV White Space devices, IP Stagebox and High Efficiency Video Compression. For further information, please visit [www.bbc.co.uk/rd](http://www.bbc.co.uk/rd)

### **Sami Susiaho, Head of Edge Technologies, BskyB**

Sami Susiaho has worked for European blue chip MNOs and ISPs for the last 15 years. During the last few years, at BSKYB as the Head of Edge Technologies of the Cloud business unit, focusing on WiFi R&D and helping the business to build one of the most advanced WiFi hotspot networks in the world. He researches technologies used on the edge of the network; last mile connections, wireless and wired technologies. Sami runs the Wi-Fi test lab, sits on various industry workgroups and contributes in numerous efforts towards the best possible user experience on WiFi. For further information, please visit <https://corporate.sky.com/>

## **Profiles of Speakers**

### **Peter Willison, Head of Technology Radio, Arqiva**

Peter Willison is Head of Technology (Radio) for the Terrestrial Broadcast Division of Arqiva, the UK based communications infrastructure and media services company. He has over 30 years of technical experience within the Commercial Radio broadcast sector including 15 years as Technical Director at The Capital Radio Group. He holds a PhD in Acoustical Modelling, is a Chartered Engineer and a Fellow of The Radio Academy. For more information please go to: [www.arqiva.com](http://www.arqiva.com)

### **Lindsay Cornell, Principle Systems Architect, BBC**

Lindsay Cornell is Principal Systems Architect for the BBC's Future Media division. He leads the work on The Future of Radio and on spectrum matters relating to Programme Making and Special Events (PMSE). He is currently chairman of the World DMB and DRM Technical Committees, and of the CEPT WGFMT51 on PMSE, helping to define the future spectrum framework for wireless microphones and cordless cameras. For further information, please visit [www.bbc.co.uk](http://www.bbc.co.uk)

### **Laurence Harrison, Director, Digital Radio UK**

Laurence is Director of Market Development and Technology at Digital Radio UK. Laurence led the government/industry Digital radio Action Plan and chaired the technology and equipment group which developed the minimum receiver technical criteria that underpin the consumer-facing digital radio tick mark. He also leads on working with the vehicle industry to get digital radio in to cars and on developing the future for radio in connected cars. Prior to joining DRUK Laurence was Director of Consumer Electronics and Energy & Environment at trade organisation techUK and worked at the Confederation of British Industry on SME business policy. For further information, please visit [www.getdigitalradio.com](http://www.getdigitalradio.com)

### **Pablo Fraile, Head of Product Marketing, Frontier Silicon**

Pablo Fraile is Head of Product Marketing at Frontier Silicon. There he oversees the definition of new semiconductor, hardware and software products in the areas of digital radio and connected audio. His work spans areas such as product marketing, partner relations and marketing strategy. Prior to that he worked at Imagination Technologies' PowerVR video codecs team. Pablo has a Masters Degree in Industrial Engineering and an MBA from Ashridge Business School. For more information, please visit [www.frontier-silicon.com](http://www.frontier-silicon.com).

## **Profile of Additional Panellist**

### **Ian O'Neill, Programme Director, Radio and Head of Radio Policy, Department for Culture, Media and Sport**

Ian O'Neill is currently Programme Director, Radio and Head of Radio Policy at DCMS. He joined the Civil Service in 1992. His first position was as an assistant to the Pension Law Review Committee which examined pensions law and regulation following the collapse of Mirror Group Newspapers. He later joined the UK Department for Work and Pensions in 1993 and spent 6 years working on pension and long-term care policy and. Following promotion in 2000, he joined the Sports Team at the Department of Culture, Media and Sport (DCMS) and was initially responsible for policy on community sports facilities and later was a key member of the DCMS team that successfully restructured the financing of the Wembley National Stadium project.

Ian joined the Digital TV Switchover project in early 2003 leading on the socio-economic aspects of TV switchover. His main achievement was the design of the Switchover Help Scheme that supported viewers throughout the five year switchover programme. He also led on the BBC's digital purposes which developed as part of the BBC's 2007-2017 Royal Charter. In 2008, Ian joined the Government Olympic Executive (GOE) as Head of Sport, Social and International legacy, successfully delivering a number of key legacy projects including the 2012 International Inspiration sport for education programme in collaboration with the British Council and UNICEF and the first ever Paralympics Legacy Strategy, which was fully integrated into the planning of the games. He was also Chair of the Organising Committee for the 2012 UK School Games hosted at the Olympic Park, and the largest of the pre-Games Test events involving 1,600 athletes and 35,000 spectators. Ian was awarded an OBE in December 2012 in recognition of his services to the 2012 Games

Ian re-joined the DCMS Media Team in January 2013, this time as Programme Director Radio, and taking responsibility as Head of Radio Policy in April 2013. He is married and has three children and still lives in London. He owns 4 DAB radios (two with DAB+).

For further information, please visit [www.gov.uk/government/organisations/department-for-culture-media-sport](http://www.gov.uk/government/organisations/department-for-culture-media-sport)

## Delegate List

Name	Organisation	Company Profile
Ahmed Aldabbagh	Ofcom	Ofcom is the regulator of the UK telecom sector.
Dev Audsin	Orange Innovation UK	SIG Champion, Digital SIG. Orange is one of the world's leading telecommunications operators.
Mark Barnes	dB Broadcast Ltd	Expert in broadcast system design and installation from studio through to transmission
John Bibby	Bitstream Broadcast Limited	System integrators and network designers, bespoke broadcast products and solutions
Chris Box	EE	EE
Tim Butler	BBC	
Rick Chandler	Airworking	IoT and Smart City Consultancy
Pascal Cintract	Airgoo Wireless Media	European market development of wireless and cloud solutions for telecom, retail and hospitality
Lindsay Cornell	BBC	
David Crawford	Telecom Technologies Ltd/University of Essex	University researching into on multimedia transmission technologies
Deborah Duberry	Microlease	Test & Measurement Equipment Services
Stirling Essex	Espansivo	Board member. Helping organisations make better strategic decisions in technology, marketing and business devt.
Robbie Fay	DCMS	
Shane Flint	Affarii Technologies	
Pablo Fraile	Frontier Silicon	Frontier Silicon, founded in 2001, is the world's leading supplier of technology solutions
Kit Friend	Accenture	The world's largest consulting firm
Zahid Ghadialy	eXplanoTech	SIG Champion, Small Cell SIG. Technical Consulting, Technology Training, Managed Services, Resourcing and Recruitment
Sybille Gibbons	AON	
Antoine Grenier	Deloitte (Entrepreneurial Business)	At Deloitte we identify with and celebrate the spirit of entrepreneurship
Lindsay Harris	Rohde and Schwarz	Test and Measurement and Broadcast Transmitters
Laurence Harrison	Digital Radio UK	
Peter Harrison	Nokia	
Emil Hewage	Cambridge Applied Research Ltd	
Ajaib Hussain	Rakon	
Martin James	Ofcom	Ofcom is the communications regulator.
Soraya Jones	Cambridge Wireless	CEO Cambridge Wireless
Andrew Lavey	Jaguar Land Rover Limited	Premium Automotive design and manufacture
Frank Levene	Avitus	
Paul Martin	Plextek Consulting	Innovation Consultancy
George Matich	Selex ES	
Michael Moody	Solcamb	
Tony Moretta	Atterom5	Business consultancy, including digital radio
Rob Morland	Astutim Ltd	Astutim helps companies make money out of technology in the mobile communications and wireless space
Daniel Nathan	Brighton & Hove Radio Ltd / totallyradio.com	
Chris Nokes	BBC Research & Development	SIG Champion, Digital SIG

Graham Norgett	Cellmetric	
Ian O'Neill	Dept for Culture, Media and Sport	
Carl Pickering	Omatic Limited	Software engineers, specialising in broadcast, real time embedded systems , telemetry and control.
Michael Reynolds	Invisibly Connected	Wireless technology consultancy specialising in low power license exempt technologies.
George Robertson	DTG	
Charles Sturman	U-blox	SIG Champion, Future Devices SIG.
Sami Susiaho	The Cloud	SIG Champion, Digital SIG. The Cloud is a public access Wi-Fi provider which is part of BSKyB
David Thorpe	Ofcom	Ofcom is the UK Communications Regulator
John Townsend	Angetech Consultants	
Geoff Varrall	RTT Online	SIG Champion, Wireless Heritage SIG. Handset and network design and facilitation programmes
James Weeks	Accenture	Consultancy company
Tim Whittaker	Cambridge Consultants	SIG Champion, Connected Devices SIG. World-class wireless product development services
Peter Willison	Arqiva	