

# **Small Cell SIG**

# 'Small cells big solutions – operating larger networks'

27th April



This SIG is championed by David Chambers of **ThinkSmallCell**, Simon Fletcher of **Real Wireless**, Neil Piercy of **ip.access** and Simon Saunders of **Google**.

Venue: IDEALondon, 69 Wilson St, London, EC2A 2BB

AGEND	
13:30	Registration and networking
14:00	Introduction to Small Cell SIG from Simon Fletcher of Real Wireless
14:10	Welcome from event host Sabrina McEwen, Communications and Marketing, IDEALondon
	Session chaired by SIG Champion Simon Fletcher of Real Wireless
14:20	'Defining the relevant parameters for in-building wireless solutions and demystifying the increasing number of available IBW technologies and architectures'
	Oliver Bosshard, Managing Consultant, Real Wireless
	Discussing the challenge of indoor mobile service due to improved building efficiencies and ever increasing capacity demand. Defining the real relevant factors and parameters for good indoor service (coverage on its own does not guarantee a good service) and demystifying the increasing number of available architectures and technologies in the in-building wireless market.
14:40	Q&A
14:45	'Small Cells and DAS'
	Bill Agg, Director, Customer services, Zinwave
	Looking at how DAS systems can work, in conjunction with small cells, to optimise coverage and capacity requirements of small and medium enterprises
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15:05	O&A
15:05 15:10	Refreshments and networking
15:10	Refreshments and networking Session chaired by SIG Champion, Simon Saunders, Google
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With the permission of the speakers, presentations will be loaded to the CW website on the day following the event

## **Organisers**

#### Cambridge Wireless (CW)

CW is the leading international community for companies involved in the research, development and application of wireless and 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

#### Host

#### **IDEAL**ondon

From the heart of London's Tech City, a unique collaboration of industry leaders has joined forces to support digital innovation. Our mission? To champion a new generation of high-growth start-ups and help create the digital success stories of tomorrow. Created by Cisco, DC Thomson and UCL, we are the Innovation and Digital Enterprise Alliance London (IDEALondon) – a talent hotbed like no other. Sharing a common goal of driving UK innovation, IDEALondon is a unique alliance between the global leader in IT and communications, an international media company and one of the world's top education and research institutions. For more information, please visit www.idea-london.co.uk

# **SIG Champions**

#### David Chambers, ThinkSmallCell

David Chambers is Founder and Senior Analyst at ThinkSmallCell.com, an independent website which has tracked the evolution of small cells from their early femtocell origins. With both an engineering and marketing background, and a career spanning product management and marketing for several large telecom vendors, he has gained insight and experience by meeting with mobile operators worldwide. Well known throughout the small cell industry, David writes articles, white papers and presents at conferences on all aspects of the subject. Based in a firm belief that the only technical solution to meet strong data demand is rapid deployment of large numbers of small cells, David continues to be a strong advocate of their adoption whilst pointing out their technical and commercial constraints. For more information please visit <a href="https://www.thinksmallcell.com">www.thinksmallcell.com</a>

### Simon Fletcher, Real Wireless

Simon joined Real Wireless in January 2016 as Chief Technology Officer, taking overall technical responsibility across the company. He is currently chairman of the Cambridge Wireless Future of Wireless Conference Organising Committee and Small Cell SIG Champion. In recent times his focus has been on future cities, the application 5G and IoT in industry verticals with an event horizon towards 2030. Simon spent 20 years working in the design and development of technical telecoms infrastructure. Beginning his career in technology demonstrators at Racal Radar Defence Systems, he moved to Telecoms Modus in 1999 to play a key role in the development of 3G products. In 2006 he established a core architecture team that helped develop the first-generation of technology for 4G systems culminating in a Steering Board position in the LTE SAE Trials Initiative (LSTI). For more information please visit www.realwireless.biz

# Neil Piercy, ip.access

Neil has been developing base stations for various communications systems for over 25 years, during which time he has performed roles throughout the whole development lifecycle as well as management roles. He joined ip.access as a small cell System Architect when the company was in its infancy in 2000, and has since designed GSM, UMTS and LTE small cell RAN equipment and systems. His specialist areas include security and networking, as well as a focus on all aspects of protocol design and implementation, and on system performance and simulation. Now as Head of Research he is responsible for ip.access future products and technologies. He is an active member of the Small Cell Forum, a Champion for their work on the Virtualisation of small cells. He is currently a representative for the EU project SESAME on the 5GPPP Architecture group. For more information please visit <a href="https://www.ipaccess.com">www.ipaccess.com</a>

#### Simon Saunders, Google

Simon is a specialist in the technology of wireless communications, with a technical and commercial background derived from senior appointments in both industry (including Philips and Motorola) and academia (University of Surrey). He is an adjunct professor at Trinity College Dublin and Access Technology Principal at Google. As cofounder and Director of Technology for independent wireless strategy advisory firm Real Wireless, he was responsible for overall technical capability and direction, providing independent wireless expertise and advice to operators, regulators, technology and law firms and wireless users. Customers included Ofcom, Cisco, European Commission, Virgin Media, TalkTalk, Inmarsat and many others.

He is an author of over 150 articles, books and book chapters. He has acted as a consultant to companies including BAA, BBC, O2, Ofcom, BT, ntl, Mitsubishi and British Land and was CTO of Red-M and CEO of Cellular Design Services Ltd and has acted as an expert witness in legal proceedings in England and the US. Simon speaks and chairs a wide range of international conferences and training courses and has invented over 15 patented wireless technologies. Particular expertise includes in-building wireless systems, radiowave propagation prediction, smart antenna design and mobile system analysis. He has served on technical advisory boards of several companies, was Visiting Professor to the University of Surrey, member of the industrial advisory board at University College London, founding chairman of Small Cell Forum (formerly Femto Forum), which he chaired from 2007-12 and a member of the Ofcom Spectrum Advisory Board from 2007-14. For more information please visit www.google.com

### **Speakers**

## Bill Agg

Telecommunications professional with over 30 years industry experience including senior management level roles in marketing/sales support, planning and deployment and customer support. Currently working at Zinwave as Director Customer Services. Member of the senior management team responsible for global support activities with specific responsibility for all pre and post sales activities outside of the USA and Canada, including partner support for trials and demonstrations, training, system design and on-site support. For more information on Zinwave please visit www.zinwave.com

#### Oliver Bosshard, Real Wireless

Oliver Bosshard has a technical and commercial background in the wireless industry. He runs individual projects at Real Wireless, and is also responsible for the companies overall project delivery and budgets. He has extensive experience in DAS, propagation planning, backhaul and rollout of 2G – 4G, Wi-Fi and TETRA technologies. Before joining Real Wireless, Oliver was in charge of Product Management & Strategy at Bluwan (2011-2014) where his product creation won the Frost and Sullivan European Technology Innovation Award 2011 and the Light Reading's Best New Product 'Leading Lights' Award 2011. Prior to Bluwan, he was the CTO at the wireless ISP Luminet where he executed the first post-auction spectrum trade between companies in the UK (2007-2011).

Oliver began his career as an electrical engineer in Switzerland, moving on to BTS & BSC site build management for Orange Switzerland. It was here where he started his RF planning & optimisation career before moving into the lead of the national special projects team. Key achievements at Orange Switzerland include project lead on multi-operator coverage at airports, trains and 200km+ of railway tunnels for all Swiss operators through the use of active and passive DAS, as well as representing Orange Group in Special Projects Working Groups internationally between 1999-2004. For more information about Real Wireless please visit <a href="www.realwireless.biz">www.realwireless.biz</a>

#### **Simon Butcher**

20 years of precise timing expertise with extensive knowledge in PTP transport and deployments in LANs and WANs. Expert in time management/monitoring systems for large scale telecommunications networks having engineered PTP networks worldwide for over 10 years. For more information about Microsemi please visit <a href="https://www.microsemi.com">www.microsemi.com</a>

#### Peter Thalmeir, iBwave

In his function as the Director of Systems Engineering at iBwave, Peter ensures that all feature requests are well documented and that the software development team provides valuable features in new software releases or the respective design tools. He previously worked for equipment manufacturers in various roles down the production chain. With almost 20 years of experience in the in-building industry, he has thorough knowledge on the many complexities involved in designing indoor wireless systems and solutions. Peter has a specialization in Radio Frequency and holds a degree in Electrical and Electronics Engineering from Fachhochschule Kempten University. For more information about iBwave please visit www.ibwave.com