Small Cell SIG
'Small Cells enable new commercial business models'
7th December 2016

Kindly hosted by **e IP**

*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 – EIP, Fairfax House, Fulwood Place, London WC1V 6HU

AGENDA

13:30	Registration & Networking
14:00	Introduction to the CW Small Cell SIG from **David Chambers** of **ThinkSmallCell**

Session chaired by Neil Piercy of ip.access

14:10	**Welcome from the host and talk: 'Patenting trends in Small Cell technology'**
	James Seymour, Partner, EIP and Adam Wylie, Director Enterprise Solutions, Patently at EIP
	Using patent data, EIP will provide insight and analysis into the patent filing trends of established players and emerging companies in the Small Cell technology space.
14:30	Q&A
14:35	**'2016: The year the world turned upside-down (except that enterprise coverage is still lamentable)'**
	Nick Johnson, CTO, ip.access
	The Mobile Network Operator: neither mobile nor a network operator. The Neutral Host: neither neutral nor a host. Enterprise Cellular Coverage: neither cellular nor coverage. Stir three contradictions together in a bowl with the freshest Small Cells you can find on the market. Bake for several years in a gently liberalising regulatory environment. Allow to cool and delight your enterprise customers (and shareholders) with a generous covering of cellular service. A recipe for disaster or the best thing since sliced bread?
14:55	Q&A
15:00	**'The Promise of MulteFire'**
	Dirk Lindemeier, Head of Business Center, Advanced Mobile Network Solutions, Mobile Networks, Nokia and **MulteFire Alliance Spokesperson.**
	MulteFire is the only LTE-based small cell solution that operates solely in unlicensed and shared spectrum and expands the LTE ecosystem to new and existing wireless providers. This session will address how MulteFire breaks down entry barriers and opens the doors to wireless innovation by allowing anyone to deploy a network that delivers performance, mobility and security.
15:20	Q&A
15:25	**Coffee/Tea & Networking**

Session chaired by Simon Fletcher of Real Wireless

15:55	**'Small Cells and shared spectrum'**
	Simon Saunders, Access Technology Principal, Google
	How the growing ecosystem for LTE in shared spectrum can unleash new innovation and investment for UK consumers and operators.
16:15	Q&A
16:20	**'Update on Ofcom's mobile data strategy'**
	Federico Boccardi, Principal, Spectrum Technology, Ofcom
	Federico will give an update about Ofcom's mobile data strategy, the aim of which is to identify and prioritise actions which Ofcom could undertake to facilitate the continued long term growth in consumer and citizen benefits from increasing use of mobile data services.
16:40	Q&A

16:45	Panel Session with All Speakers, chaired by **Simon Saunders** of **Google**
17:30	**Drinks Reception**
18:30	**Event Closes**

With the permission of the speakers, presentations will be loaded to the Cambridge Wireless 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 & 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

EIP – Patent Attorneys, Trademark Attorneys & Litigators

EIP is an innovative top-tier intellectual property law firm providing a range of services in Europe and the US, from patent, trademark and design registration, IP search and strategy, through to IP litigation. EIP has four UK offices in Cardiff, Bath, Leeds and London, a US office and a German office.

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 www.**thinksmallcell**.com

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 www.**ipaccess**.com

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

James Seymour, Partner, Patent Attorney, EIP

Before joining EIP James spent 18 years working as in-house IP counsel for Nokia and Hewlett-Packard in the UK, USA and Singapore. James is a qualified UK and European Patent Attorney, and has previously practised before the USPTO, and the Intellectual Property Office of Singapore. James has a deep technical knowledge of audio and video codecs, user interface, cellular protocols, and RF interfaces, printer, machine vision, and LED technologies.

James has considerable experience in drafting and prosecuting patents for mobile telecommunications and electronics. He has been involved in high profile litigation cases in the UK, US, and Germany; and in patent pool, licensing, and divestment transactions.

Adam Wylie, Director Enterprise Solutions, Patently, EIP

Adam oversees the development and deployment of Patently, EIP's patent analytics software tool. He has been involved with a number of IP software systems for the last 15 years, most recently as CEO of Patrafee UK, with their IP Forecaster patent budgeting tool which he sold to CPA Global in 2014. Prior to his life in IP, Adam spent 10 years in telecommunications with Frontier/Global Crossing. For further information, please visit www.**eip**.com/uk

Nick Johnson, CTO, ip.access

Nick founded ip.access in 1999. He established ip.access in GSM, then took their technology into partnership with Cisco and the world's largest W-CDMA residential small cell deployment with AT&T. Leading the Product And Technology group to create, position and drive ip.access' small cell products to market, Nick was founding chair of the Radio and Physical Layer working group of the Small Cell Forum and is the Innovation Architect in the Horizon2020/5G-PPP project SESAME.

Nick has a PhD in Microwave Scanned Imaging Techniques from University College, London, and an MA in Physics from the University of Cambridge. For further information, please visit www.**ipaccess**.com

Dirk Lindemeier, MulteFire Alliance Spokesperson and Head of Business Center, Advanced Mobile Network Solutions, Mobile Networks, Nokia

Dirk Lindemeier manages Nokia's Wi-Fi and Mobile Edge Computing business for telecom operators and non-operator customers. Prior to his current position Dirk held different positions in sales, business development, solution management, and product management.

Dirk joined telecommunications in 2000. Prior to that he spent 10 years as an officer in military aviation, a time during which he also obtained his master degree in Industrial Engineering at Helmut Schmidt University, Hamburg. Dirk lives and works in Munich. For further information please visit www.**multefire**.org

Federico Boccardi, Principal, Spectrum Technology, Ofcom

Federico Boccardi is a Principal Technology Advisor in Ofcom (the UK communication regulator), where he is leading the technical works to release new spectrum for 5G and WiFi. He received M.Sc and Ph.D. degrees in Telecommunication Engineering from the University of Padova, Italy, in 2002 and 2007 respectively, and a Postgraduate Diploma in Strategy and Innovation from the Oxford Saïd Business School in 2014. Before joining Ofcom, he was with Bell Labs (Alcatel-Lucent) from 2006 to 2013 and with Vodafone R&D in 2014. His current interests fall at the intersection between technology and strategy. For further information please visit www.**ofcom**.org.uk