Connected Devices SIG
"2020 - Visions of a Connected World"

7th November 2013

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*This SIG is championed by **Antony Rix** of **TTP, Tim Whittaker** of **Cambridge Consultants, Nick Hunn** of **WiFore** and **Paul Green** of **Arkessa**.*

Venue – Talking Point, TTP Group, Melbourn Science Park, SG8 6EE

AGENDA

10:00	**Registration & Networking over Tea and Coffee**
10:30	Introduction to the Cambridge Wireless Connected Devices SIG from **Nick Hunn** of **Onzo**

*Session chaired by **Nick Hunn** of **Onzo***

10:40 **"Building the Connected World"**

Introduction from our sponsor, **Antony Rix** of **TTP**

Wireless technology has become an integral part of our lives, but how and why should it progress further? This presentation will assess future opportunities and challenges that will arise from pervasive wireless technology.

11:05 Q&A

11:10 **"Market Opportunities for Connected Devices in 2020"**

Robin Duke Woolley, Founder & **CEO, Beecham Research Ltd**

The market opportunities for connected devices is growing rapidly, both in terms of numbers of devices as well as new service opportunities and business models. This presentation will explore these opportunities.

11:35 Q&A

11:40 **"A Trip to the Future"**

Ian Pearson, Futurizon

Ongoing miniaturisation will allow digital jewellery to replace mobile devices such as phones and tablets, using augmented reality as the interface. It will enable a full bypass network too, encouraged greatly by the desire to recreate some privacy in a world of total surveillance.

12:05 Q&A

12:10 **Buffet Lunch & Networking**

*Session chaired by **Tim Whittaker** of **Cambridge Consultants***

13:30 **"The Consumer View, Applications & Use Cases for Everyday"**
Nick Hunn, WiFore Consulting

For most consumers, the phrase "Internet of Things" has little meaning. Yet if it we are to achieve the vision of a connected world, we need to design products and services which are affordable, useable and desirable. This presentation looks at the opportunities that exist to excite and delight users in a variety of different market areas.

13:55 Q&A

14:00 **"The Connected Living Vision – Realising the Opportunity, Business Models, Ecosystems and Opportunities"**
Richard Cockle, Programme Director, Connected Living, GSMA

Connected Living will network many different types of product and service, creating new opportunities within and outside the existing M2M market. How can operators address this opportunity? How could ecosystems develop to meet such diverse requirements? How can we overcome barriers in key vertical markets such as smart cities, health, automotive and education?

14:25 Q&A

14:30	**"Celebrating the Complexity of 10^{10}"**
	Nick Foggin, Independent Consultant
	In a world of 10^{10} connected devices, the clash between the necessarily macro world-view of telecommunications companies and the unavoidably micro-level nature of innovation will become ever more acute. For a functional and sustainable economic model to emerge, large corporations will have to learn how to embrace the complexity that powers the next phase of sector growth, while innovators will have to take a step beyond the mantra of disruption, and learn how to navigate the hegemony and hierarchy of the world of 'big infrastructure'.
14:55	Q&A
15:00	**Tea/Coffee & Networking**

Session chaired by **Antony Rix** of **TTP**

15:30	**"Connecting 50 Billion Devices – the Wide-area Network Perspective"**
	John Haine, Innovation Coordinator, Wireless Technology, u-blox AG
	Connecting 50 billion devices will need "anywhere, anytime, zero cost" networking. Wide area wireless networking today is synonymous with cellular – how do today's and tomorrow's cellular networks measure up to the challenge of ubiquitous connectivity?
15:55	Q&A
16:00	Short pitches from Start-Ups with Novel Products & Services including:

- **Alexandra Deschamps-Sonsino, EyeHub partner** who will talk on *'A secure and sustainable internet of things'.* This talk will address the primary concerns around security in a world of connected products and objects as well as point to what the Eyehub project is doing to address them.
- **Stan Boland, Neul** who will talk about '*Weightless networks for the Internet of Things'*

16:35	Panel Session with All Speakers, chaired by **Antony Rix** of **TTP**
16:55	**Fill in Evaluation Forms & Event Closes**

With 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 16 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 in the UK, CW partners with other leading industry clusters and organisations around the world to extend its international reach and to stay at the forefront of the latest global developments and business opportunities. For more information, please visit www.**cambridgewireless**.co.uk

Profile of Sponsor

The Technology Partnership plc (TTP)

The Technology Partnership plc (TTP) is a leading independent technology and product development company. TTP works closely with its clients to create new disruptive products based on advances in technology and engineering innovation. TTP's technology lies behind many products and processes in areas as diverse as communications, digital printing, instrumentation, consumer & industrial products, medical devices, cleantech and security systems. For more information please visit: www.**ttp**.com

Dr. Antony Rix, TTP

Dr. Antony Rix is a Senior Consultant in the Communications and Wireless group at TTP, Europe's leading independent technology consultancy and product development company. He has led projects in areas including mobile TV, phone apps, network planning, and novel short-range and wide area wireless technologies. Antony is currently engaged in business development and programme management in wireless healthcare and in safety-related radio systems, where he focuses on developing breakthrough products and services for TTP's clients based on applications of technology.

Before he joined TTP in 2004, Antony worked at BT's Research Laboratories and then co-founded Psytechnics, a successful start-up company developing quality of service and network monitoring software.

Antony has a Ph.D. from the University of Edinburgh and a Masters in Engineering from the University of Cambridge. He is a member of the American Telemedicine Association, Institute of Engineering and Technology and Audio Engineering Society, and he co-chairs the Cambridge Wireless Special Interest Group on Connected Devices. For more information please visit www.**ttp**.com

Tim Whittaker, Cambridge Consultants

Cambridge Consultants was started in 1960 to pioneer the delivery of independent design and development services in electronic, mechanical and product engineering: we are one of the founder companies of the high-technology Cambridge phenomenon. Our history of world-class services is augmented by our development of intellectual property in telecommunications, software, silicon and medical devices, and by more than 20 successful spin-out ventures. Today Cambridge Consultants employs 350 engineers, scientists, project managers and technicians with offices in Cambridge, UK and Cambridge, MA in the USA; we provide the full range of services for excellent product design to a worldwide client base in the wireless, consumer, industrial and medical markets. Tim Whittaker is a System Architect in the Wireless business unit, where he has taken the technical lead in projects using radio standards like Bluetooth, ZigBee, DECT, and in the creation of specialist communications schemes for new applications, or to use new spectrum allocations. For more information visit www.**cambridgeconsultants**.com

Nick Hunn, WiFore Consulting

For the past twenty years he has been closely involved with short range wireless and communications, designing technology that helps to bring mobility to products, particularly in the areas of telematics, M2M smart energy and mobile health. He is closely involved with the Bluetooth SIG, the Continua Alliance and other medical and wireless standards bodies. He is the author of "The Essentials of Short Range Wireless" - a book attempting to explain the application of wireless technology to product developers. Nick can be contacted at nick@**wifore**.com

Paul Green, Arkessa

Paul originated Arkessa in 2006 – the business that provides remote internet services to multitudes of machines. He is currently creating the services Arkessa will offer in five year's time. His professional life combined engineering and science has taken him through a variety of roles, including design and production engineering, business planning, marketing and corporate sales, mainly in the telecommunications sector. Interestingly, the first product he introduced to manufacture is now is in the Science Museum in London. A passionate and committed Christian, Paul is as excited about materials science and quantum physics as he is interested in railways, walking, skiing and the natural world. For more information please visit www.**arkessa**.com

Profiles of Speakers

Richard Cockle, Programme Director Connected Living, GSMA

As Programme Director, Richard is responsible for the GSMA's Connected Living programme which is designed to help operators accelerate the delivery of connected life services, and support their successful deployment into the new market environments. He leads a team of experts that are working to eliminate existing barriers and stimulate implementations of connected devices and services within the areas of health, automotive and education. Richard also promotes the necessary supporting evidence to prospective major stakeholders with the aim of greater collaboration across the mobile ecosystem, unlocking potential areas of growth in market demand for connected life services. Richard is also a key spokesperson for the GSMA in describing how mobile service can be integrated into adjacent industries and the benefits that mobile services can bring.

Since joining the GSMA in 2007 as a Project Director, he has been responsible for the management of a wide range of strategically important projects within the mobile industry, leading the creation of the GSMA mHealth initiative, developed a set of technical specifications for Femto technology, and lead a global regulatory advocacy campaign for the release of new radio spectrum for the mobile industry. For more information please visit: www.**gsma**.com

Robin Duke Woolley, Founder & CEO, Beecham Research Ltd

Beecham Research is based in Cambridge UK, with offices in Boston MA, and specializes in the development of the rapidly-growing M2M/IoT market worldwide. Robin has over 35 years experience in the telecom/IT industry. Firstly in commercial roles covering Marketing Management, Sales Management and General Management in international technology vendor companies including General Electric Company, STC/Nortel and in start-ups. Secondly in market analysis/consulting roles, including as a Director of Research at Dataquest/Gartner and as an independent consultant. He has been researching the M2M market for over a decade, since 2001.

Robin gained a BSc honours degree in Electronics, followed by an MSc in Management and Business studies at Warwick University in the UK. He also studied at INSEAD in Fontainebleu, France.

For more information please visit: www.**beechamresearch**.com

Nick Foggin, Independent Consultant

Nick Foggin is an independent consultant, who has most recently been engaged in supporting the GSMA with their Mobile Identity programme. In parallel, Nick is a shareholder and director of a financial advisory firm, based in Johannesburg, South Africa. The company advises African governmental clients on state enterprise restructuring, sovereign wealth instruments, debt restructuring and other matters. With a focus on the telecommunications sector, Nick has contributed to projects in over a dozen Sub-Saharan African countries. Formerly, Nick worked for Orange, as group director of strategy. In total, he has over 20 years' experience in the telecommunications industry, predominantly in mobile. He has a masters degree from Strathclyde Graduate Business School and a first class honours degree from Manchester University.

John Haine, u-blox AG

John Haine has spent his career in the electronics and communications industry working for British Telecom, Marconi, PA Consulting, and with start-ups including Cognito and Ionica. His technical background includes R&D in radio circuitry and microwave circuit theory; and the design of novel radio systems for cordless telephony, mobile data, and fixed wireless access. He has led standardisation activities in both the latter areas in ETSI, and contributed to WiMax. In 1999 he joined TTP Communications working on research, technology strategy and M&A activities; and after the company's acquisition by Motorola became a Director of Technology Strategy in Motorola Mobile Devices. After leaving Motorola he was CTO Enterprise Systems with ip.access Limited, the leading manufacturer of GSM picocells and 3G femtocells. In early 2010 he joined Cognovo Limited, which was acquired by u-blox AG in 2012. In u-blox John is defining RF platform strategy for future wireless modules and looking at emerging standards for M2M. John has a first degree from Birmingham and a doctorate from Leeds universities. For further information please visit: http://www.**u-blox**.com.

Ian Pearson, Futurizon

Ian Pearson is a full time futurologist, tracking and predicting developments across a wide range of technology, business, society, politics and the environment. He is a Maths and Physics graduate and a Doctor of Science. He has worked in numerous branches of engineering.

His inventions include text messaging and the active contact lens. He was BT's full-time futurologist from 1991 to 2007 and now works for Futurizon, a small futures institute. He writes, lectures and consults globally on all aspects of the technology-driven future. He has written several books and made over 500 TV and radio appearances. He is a Chartered Fellow of the British Computer Society, the World Academy of Art and Science, the Royal Society of Arts and the World Innovation Foundation. For more information please visit: www.**futurizon**.com

Profiles of Pitching Companies

EyeHub

EyeHub is building an open hub to enable "smart city" services to be developed and trialled, firstly within the University of Surrey campus and then throughout the town of Guildford. EyeHub is a consortium of UK developers and data ownerstackling internet of things challenges through innovative use of connected technologies. EyeHub is one of eight Internet of Things Ecosystem Demonstrators co-funded by the Technology Strategy Board. For more information please visit: http://www.flexeye.com/**eyehub**.html

Neul

Neul is a venture-backed company building low power wide-area networking technology for the Internet of Things. Its business model is to deliver a service to network operators allowing them to deliver high availability, low cost and low power networks for connecting potentially billions of devices to the Cloud. For more information please visit: www.**neul**.com

Delegate List

Name	Organisation	Company Profile
Mohamed Aziz	Telefonica UK	Digital services provider
John Bechtel	Badger Pass	**SIG CHAMPION**. Badger Pass helps small tech companies operate efficiently and deliver effectively.
NimishKumar K. Bhatt	Livewire (UK) Ltd	
Steven Blyth	Jaltek Systems	A high technology contract manufacturer, looking to add value on your next generation of development
Francesc Boixadera	MStar Semiconductor UK	Wireless Chipset Fabless Semiconductor
Stan Boland	Neul	
Phil Burr		**SIG CHAMPION**.
Andy Bush	Accenture	
Iain Campbell	Accenture	
Chris Carr	MICROWAVE MARKETING	RF & Microwave component and engineering supply specialist,
Manu Chadha	Hughes Systiqye Corporation	
Rick Chandler	Airworking	Wireless consultant working in IoT and Smart Cities
Samira Cherrouk	Lumie	
Destanie Clarke	DestaniePR Ltd	Public Relations and Marketing Communications with a Global Reach
Peter Claydon	Silicon Southwest	
Richard Cockle	GSMA	
Kevin Coleman	Alliantus Limited	**SIG CHAMPION**. Probably the best strategic marketing organisation in Cambridge
Clennell Collingwood	TTP Ventures	**SIG CHAMPION**. TTP Ventures enables innovative young engineering companies to accelerate their growth.
Symon Cotton	Cambridge Consultants	Design consultancy
Jonathan Cridland	Lumie	Light therapy specialists
Andrew Crisp	IOTAS	Cellular Test Organisation performing Field Trials
Gillian Cross	Accenture	
Jakub Czaplicki	Broadcom	Broadcom Corp. - semiconductor solutions for wired and wireless communications
Alan Davie	Philips Research UK	Health and wellbeing technology company
Paul Davison	MLL Telecom	**SIG CHAMPION**. MLL Telecom is one of the UKâ€™s leading providers of fully managed networks and professional services
Alexandra Deschamps-Sonsino	Designswarm	Internet of Things & Interaction Design
Hazel Doughty	Castle Microwave Ltd	
Robin Duke-Woolley	Beecham Research Ltd	
David Edwards	UL	Product safety (Regulatory and compliance for electronic products) Global market Access
Don Eungblut	HE Ventures Ltd	Support for organisations seeking to do business in China
Liz Fitzsimons	Eversheds LLP	
Nick Foggin	Independant Consultant	
Raj Gawera	Samsung	
Graeme Gibson	Appsherpas Limited	Specialists in mobile retail, hospitality and health application solutions

Rob Gilham	Arkessa	
Simon Glassman	Numerex	Leading provider of M2M Managed services and solutions.
James Goodwin	Anite	
John Haine	u-blox	**SIG CHAMPION**. Leading global provider of positioning and wireless chips and modules.
Michael Hartley	EE	UK's largest mobile phone operator running the first UK LTE network
Mark Henry	EE	Telco
Justin Hill	Olswang LLP	
Rachel Holdsworth	Holdsworth Associates	Cambridge-based PR company with specialist interest in science and technology based companies
Tracy Hopkins	Neul Ltd	
Chris Humby	Cambridge Consultants	
Nick Hunn	Wifore Consulting	
Malkit Jhitta	RoodMicrotec	Design, Test, Qualification and Supply Chain Management Services
Simon Jones	Camdata	
Soraya Jones	Cambridge Wireless	
Bhagvat Joshi	ConvergedLinks Inc	
Jussi Kahtava	Sony Europe	
Georgios Karakousis	Panasonic Europe Ltd	
Kamran Kordi	Nokia Network Solutions	
Dalibor Krsmanovic	Lumie	Consumer/Medical device manufacturer.
Ian Lankshear	EnSilica	EnSilica help design low-power ICs using embedded CPUs and wireless and PLC connectivity for IoT
Steven Lourdes	Lumie	Manufacturer of consumer/medical products
Sylvia Lu	u-blox	**SIG CHAMPION**. Global leader in positioning and wireless modules and chips.
David Marsden	EML WIldfire	PR for technology companies
Ciaran McAleer	Fen Technology Ltd	
Kevin McIntyre	Ogma Solutions	
John Moor	VP, Design Innovation	
Dr Michele Nati	Centre for Communication Systems Research, University of Surrey	
Joey Neale-Jennings	TesTime Ltd	Wireless testing and compliance solutions, with a specialism in field trials.
Pete Nicholson	Spirent Communications	Test Equipment Manufacturer
Graham Norgett	Cellmetric	
Andrew Orrock	Arkessa	Leader in M2M and IoT services and platforms
Ken Pearson	Pensa Consulting	Pensa provides strategic, commercial and technical advice to the wireless communications industry.
Ian Pearson	Futurizon	
Tim Phipps	Cambridge Consultants	**SIG CHAMPION**. Product Development Consultancy
Derek Pirie	BT	Telco
Jan Poesse	Philips Research	
Leo Poll	Akendi UK	**SIG CHAMPION**. Akendi is a customer research, user experience design & product strategy firm

Haydn Povey	ARM	ARM - The Architecture for the Digital World
Dipak Raval	CSR plc	CSR plc is a leading provider of location, connectivity and Audio platforms
Laurie Reynolds	AquamatiX Ltd.	Water systems integrator
Michael Reynolds	Invisibly Connected	Wireless technology consultancy specialising in low power license exempt and mesh technologies.
Antony Rix	TTP Group	**SIG CHAMPION**.
John Roe	Accenture	**SIG CHAMPION**.
Halam Rose	Arkessa	M2M service provider
Nabil Saheb	AM Solutions	
Mauro Scagnol	CSR	
John Scott	Qualcomm	
Steve Sims	Ziconix Ltd.	Mobile connected product development for science & industry applications
James Stein	TTP	See CW profile for TTP
Charles Sturman	u-blox	Positioning and Wireless chipsets and modules
Tim Taberner	Eurotech	Embedded board & device manufacturer also offersa M2M integration platform for IoT applications
Tim Thornton	Accenture	
Adrian Toutoungi	Eversheds LLP	Lawyers helping you keep the world connected: committed locally, connected globally
Matthew Trowbridge	MGT Support Ltd	
Catherine Viola	Quindi Research	Telecom / energy research and consultancy
Adrian Wagstaff	MASS	Secure networks & IT
Andy Walker	McLaren Applied Technologies	
David Whale	Thinking Binaries Ltd	
Tim Whittaker	Cambridge Consultants	**SIG CHAMPION**.
David Wood	Delta Wisdom Ltd	