

The Virtual Networks Group**Open standards and orchestration to achieve end-to-end virtualised networks**22nd April 2021

This SIG is championed by **Julie Bradford** of **Real Wireless**, **Mark England** of **Cambridge Consultants**,
Andrew Palmer of **CGI** and **Justin Paul** of **Ericsson Digital Services**

AGENDA

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- 14:00** CW and UK5G welcome by **Simon Mead, CEO, CW (Cambridge Wireless)**
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- 14:05** Introduction to topic by **Justin Paul, Virtual Networks SIG Champion** and **Senior Marketing Manager, Ericsson**
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- 14:10** **Session chaired by SIG champion, Justin Paul**
'Enabling Interoperability Without Sacrificing Security'
James Arias, Co-Founder & Software Developer, Weaver Labs
As open-standards and open-interfaces enable interoperability across vendors, how do we ensure that security becomes a priority, instead of an afterthought?
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- 14:25** **'Open standards, open platforms and open source for cloud native 5G'**
Sridhar Rajagopal, VP and Senior Fellow, Strategy Team, Mavenir
This talk discusses the benefits and challenges for operators as they migrate towards "open" ecosystems for multi-vendor cloud-native 5G deployments.
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- 14:40** **'The importance of open standards'**
Amit Ghadge, Senior Director, Product Manager, Parallel Wireless
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- 14:55** **'What are the objectives of Emerging Technology at Ofcom?'**
Simon Saunders, Director of Emerging Technology, Ofcom
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- 15:10** Panel session chaired by **SIG champion, Justin Paul**
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- 15:40** **End of session followed by networking**
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- 16:00** **Event closes**
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With the permission of the speakers, presentations will be loaded to the CW website the week following the event

Profile of 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 over 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 major conferences and start-up competitions 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. cambridgewireless.co.uk

UK5G

UK5G is the new national innovation network dedicated to the promotion of research, collaboration and the commercial application of 5G in the UK. UK5G is a 'network of networks' to facilitate and encourage the engagement and coordination of organisations working on 5G activities across the UK. It will enhance links between ongoing research and development and other activities being undertaken by organisations across telecoms and other sectors, as well as the testbeds and trials that will be funded through the UK Government's 5G Testbeds and Trials

Programme. It will facilitate the joining up of businesses, large and small, academic institutions and the public sector throughout the UK. UK5G is independent and impartial. A senior national advisory board will advise the Government's 5G Testbeds and Trials Programme, providing expert feedback from industry, identifying their priorities and advising on future areas of focus. UK5G will be a focal point for international engagement into the UK's 5G eco-system - encouraging international participation and investment. uk5g.org

Profile of SIG Champions

Julie Bradford, Managing Consultant, Real Wireless

Julie has worked in the wireless industry for over 15 years. At Real Wireless, she is a thought leader in 5G business case analysis including understanding 5G use cases, quantifying (in financial terms) the operational and socio-economic benefits of 5G services and understanding network dimensioning and cost implications under 5G virtualised networks. She has most recently led Real Wireless' techno-economic analysis on the EC Horizon 2020 5G-MoNArch project. Inspired by the project's smart sea port testbed constructed by HPA, Nokia and DT in the Port of Hamburg, this analysis included quantifying the operational benefits of 5G to port authorities and other port users and the cost implications of delivering these industrial grade wireless services from existing mobile infrastructure via network slicing supported via the virtualised 5G-MoNArch network architecture. Previously, Julie was Communications Engineer at QinetiQ UK, consultant at PA Consulting UK, and Senior Systems Engineer for Airvana UK. real-wireless.com

Mark England, Associate Director, Cambridge Consultants

Mark England has spent three decades architecting, designing, and implementing a wide variety of wired and wireless communications products, services, systems and protocols; from short range point to point systems to those which operate on a global scale. Mark joined Cambridge Consultants in 2000, and for the past 17 years he has been providing leading edge design, development and consultancy services to a wide range of clients.

cambridgeconsultants.com

Andrew Palmer, Consulting Director, CGI

Andrew has more than 30 years of experience in IT, Telecoms and TV and Media, having worked in various roles for IBM, AT&T, Ericsson, Motorola and Arris. Andrew's present role is to leverage existing CGI capabilities that match the needs of our clients in the Telecoms sector, as well as building new capabilities that will support the emerging and changing needs of our client base. Andrew has proven experience in developing and delivering complex SI and Services solutions that meet both business and technology needs. Andrew has co-authored "UK Telecoms For Dummies", an essential guide to the complicated UK Telecoms sector as well as articles for publications such as the Cambridge Wireless Journal including "How do we build the new world of 5g?". He frequently speaks at conferences and provides media commentary on industry topics like 5G, IoT and Smart Cities, as well as being a member of the Digital Policy Alliance's Smart Society Working Group, techUK Spectrum Policy Forum and the Cambridge Wireless Virtual Networks Special Interest Group. cgi-group.co.uk

Justin Paul, Senior Marketing Manager, Ericsson Digital Services

Justin has over twenty years' experience in technology marketing in the telecoms and software industries. Prior to joining Ericsson Digital Services he worked for Zeetta Networks, Huawei Technologies in NFV/SDN Marketing and Amdocs where he led the launch of their NFV Portfolio which now forms a major part of the ONAP (Open Network Automation Platform). During his career he has been responsible for the launch and go-to-market for a number of leading-edge technologies including 3G, IPTV, LTE, NFV and 5G. A TED-trained conference speaker he has presented at a number of major international conferences including Layer 123 SDN and Openflow Congress, LTE Asia and SCTE. A CIM qualified marketer he runs a Bristol-based Digital Marketing knowledge-sharing group. www.ericsson.com

Profile of speakers

James Arias, Weaver Labs

James is a software developer and security researcher at Weaver Labs. James first began working in the telecoms space in 2017 as a network programmer in the 5G UK Testbed Lab at King's College London. James primarily focuses on distributed systems and security while working on Weaver Lab's two main technologies; Cell Stack and wireMQ. Weaver Labs aims to innovate upon the traditional "One Network, One Vendor" approach and contribute to the reformulation of the telco supply chain in order to make it more secure, cost efficient and reliable. James previously

worked in risk groups at several financial institutions in the US and Canada and holds an M.Sc in Mathematics and Computer Science. www.weaverlabs.io

Amit Ghadge, Parallel Wireless

A Telecom industry professional with 20+ years of experience in various domains like Telecom and Datacom domain, and in different roles like Engineering, Product Management and Product Owner. Amit has worked with well-known Telecom/Datacom vendors like Parallel Wireless, Cisco, Starent, Huawei & CoSystems. As a Product Manager Amit he has managed 5G Packet Core Solution, OpenRAN RIC, CUPS Gateway, LTE EPC Gateway products like GGSN, PGW, SGW & SAE-GW. He has witnessed several different evolutions of Mobile Packet Core solution and has several US Patents in Mobility. www.parallelwireless.com

Sridhar Rajagopal, Mavenir

Sridhar Rajagopal is currently a Vice-President & Sr. Fellow, Technology & Strategy at Mavenir Systems, where he is currently focusing on 5G technologies. Prior to this, he was one of the initial employees at Ranzure Networks, a cloud RAN start-up. He also had R&D roles in design, prototyping and standardization of 5G cellular and Wi-Fi systems at Samsung, in UWB technology at WiQuest communications and 3G/4G research at Nokia. He was an associate editor for the Journal of Signal Processing Systems (Springer) and has led leadership positions in standardization bodies such as IEEE and WiMedia. He was a co-recipient of the IEEE 2017 Marconi Prize Paper award for his research on mmWave systems. He has co-invented around 45 issued US patents. He received his M.S. and Ph.D. degrees from Rice University and is a senior member of IEEE. www.mavenir.com

Simon Saunders, Ofcom

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 was Access Technology Principal at Google. As co-founder 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. www.ofcom.org.uk