

Virtual Networks SIG Pushing NFV/SDN to the edge through Mobile Edge Computing

3 November 2015

Hosted by **Bird & Bird**

This SIG is championed by Phillip Bridge, **EE**, Martin Crack, **Amdocs** and Dirk Trossen, **InterDigital**.

AGENDA

12:30 Registration and networking with lunch

13:30 Introduction to Virtual Networks SIG from **Phil Bridge, EE**

13:40 Welcome from event supporter, **Bird & Bird**

Session chaired by SIG Champion, Martin Crack, Amdocs

13:50 'Placing content intelligence at the 5G mobile network edge'

Ning Wang, Reader in Networks, **University of Surrey**

This talk will address how mobile edge computing (MEC) is used as a key enabler for supporting smart content-oriented network functions in the 5G network design carried out at the 5G Innovation Centre (5GIC) hosted at the University of Surrey.

14:10 Q&A

14:15 'MEC: Bit pipe to smart pipe'

Matt Stagg, Senior Manager of Network Strategy, **EE**

Not if but when: Industry collaboration to grow the ecosystem to ready the MEC platform

- How to broker cooperation with OTT providers
- Supporting network capacity demands from 2016
- Tackling the challenge of interoperability and ensuring a truly vendor-agnostic platform
- Ensuring an effective interface for technical & commercial teams to drive adoption of MEC

14:35 Q&A

14:40 Refreshments and networking

15:10 'MEC: A presentation and discussion on status and strategies in the industry'

Julian Roldan Ramos, Telco Solutions Architect, **Intel**

Fixed and Mobile Networks are in the process of being transformed, just as the IT industry was transformed in the last 10 years. Mobile Edge Computing and Network Function Virtualization are not just buzz words, they are right at the centre of this transformation. Where are we, as an industry, in this transformation? Are there any synergies between NFV and MEC?

15:30 Q&A

15:35 'The role of user analytics in edge caching: Lessons from BBC iPlayer'

Nishanth Sastry, Senior Lecturer, **King's College London**

It is nearly always 'good' to cache, but storage is typically limited at the edge, so deciding what gets cached can make or break edge-caching. Using traces of 1.2 Billion accesses to BBC iPlayer, the second largest application on UK's Internet, this talk will demonstrate how understanding user access patterns is crucial to realising the benefits of edge caching. This is based on two papers in IEEE INFOCOM 2015, a paper to appear in IEEE/ACM Transactions on Networking, and ongoing work.

15:55 Q&A

16:00 Panel session with all speakers chaired by **SIG Champion, Phil Bridge, EE**

16:30 Complete evaluation forms

16:35 Event closes

With the permission of the speakers, presentations will be loaded to the CW website on the day 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 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

Profile of host

Bird & Bird LLP

Bird & Bird is an international law firm, with a rare and invaluable grasp of strategic commercial issues. We combine exceptional legal expertise with deep industry knowledge and refreshingly creative thinking, to help clients achieve their commercial goals. They have over 1100 lawyers in 26 offices across Europe, the Middle East and Asia, as well as close ties with firms in other parts of the world. There are three key things that set Bird & Bird apart from their competitors: their deep industry knowledge, excellence in client service and international reach. These differentiators are all underpinned by our commitment to clarity, originality and passion. For more information, please visit: www.TwoBirds.com

Profile of SIG Champions

Phil Bridge, EE

Phil Bridge has spent over three decades in the telecommunications and networking industries. He has worked in research labs, academia, start-ups, equipment vendors and service providers, in the UK and Switzerland, in technical, marketing and management roles. From 2002 he worked at Orange as a network designer and architect, and continues that role at EE since it was formed from the merger of Orange UK and T-Mobile UK. Currently he is concerned with the technical strategy for mobile data in general, and the evolution of the architecture of the mobile data core network in particular. For more information please visit www.ee.co.uk

Martin Crack, Amdocs

Martin has more than 25 years of experience of working in the Telecoms services industry providing expertise in information management, IT virtualization, transformation and data migration. He has led many initiatives for major European Operators within these disciplines and provides an all-round perspective on NFV and the benefits and challenges that it presents for them. Currently he works within Amdocs OSS Division as a product manager working since early 2013 with the NFV-O initiative on Next Generation OSS. For more information please visit www.amdocs.com

Dirk Trossen, InterDigital

Dirk Trossen has more than 15 years of experience in network architectures, wireless technology, and context-aware services. He has led numerous research projects in his corporate positions as well as in international collaborations with world-leading universities and institutions like MIT, Cambridge University, GeorgiaTech and Columbia University. Prior to joining InterDigital as a Principal Engineer, Dirk held a position as Senior Researcher at the Computer Laboratory of the University of Cambridge. He also held prior positions as Chief Researcher with BT Research and as Principal Scientist with Nokia Research. He is a research affiliate with the Advanced Network Architecture group at MIT CSAIL and one of the co-founders of TecVis LP. For more information please visit www.interdigital.com

Profile of speakers

Julian Roldan Ramos, Intel

Julian has a Superior Degree in Telecommunications Engineering from the Polytechnic University of Catalonia, specializing in Telematics, where he graduated with honors in 1999. He moved then to the UK and has over 16 years of professional experience in the wireless industry, which spans from software and firmware engineering to product marketing/management and pre-sales. Julian is now a Solutions Architect at Intel, focusing on new emerging technologies like Mobile Edge Computing, Network Function Virtualization and Software Defined Networking that will transform how wireless networks are built in the lead to 5G. For more information please visit www.intel.co.uk

Nishanth Sastry, King's College London

Nishanth Sastry is a Senior Lecturer at King's College London. He holds a PhD from the University of Cambridge, UK, a Master's degree from The University of Texas at Austin, and a Bachelor's degree from Bangalore University, India, all in Computer Science. He has over six years of experience in the Industry (Cisco Systems, India and IBM Software Group, USA) and Industrial Research Labs (IBM TJ Watson Research Center). Relevant to this SIG, Nishanth is currently involved in two H2020 projects relating to 5G (5G NORMA and VirtuWind), wherein SDN principles as well as edge caching and computing are both being investigated in the context of 5G. For more information please visit www.kcl.ac.uk

Matt Stagg, EE

Matt has ~25 years' experience in Telecoms and was recently voted in the top 50 most influential people in New TV for the second year running. In 2013 Matt co-founded the Mobile Video Alliance which now resides within the Digital TV Group and which he now co-chairs. Within EE he is responsible for Video and Content Technologies, including leading the development of cutting edge technologies such as LTE-Broadcast and Mobile Edge Computing. Matt led the team that delivered the UK's first demo of LTE-Broadcast at the 2014 Commonwealth Games together with the BBC and continues to develop the LTE Broadcast ecosystem internally and in the wider industry. The latest achievement being the world's most feature rich sports app demo at the FA Cup Final @ Wembley in May. Matt is a mentor for the 5GIC project at Surrey University and also represents EE within ETSI Mobile Edge Computing (MEC) working group. For more information please visit www.ee.co.uk

Ning Wang, University of Surrey

Dr Ning Wang is currently a Reader (Associate Professor) at the Institute of Communication Systems, Faculty of Engineering and Physical Science, University of Surrey. Since 2009 he has been the principal investigator for both EU Framework Programme (FP) and UK EPSRC research projects, covering the technical areas of Future Internet design and mobile content delivery. For more information please visit www.surrey.ac.uk