

## Automotive & Transport SIG 'How Innovation is Reinventing Rail Travel'

2<sup>nd</sup> April 2015

**Sponsored by Rohde & Schwarz**

This SIG is championed by Andrew Ashby, **Plextek Consulting**, Tom Blackie, **RealVNC**, John Okas, **Real Wireless** and Nigel Wall, **Climate Associates**

**Venue: Bateman Auditorium, Gonville & Caius College, Trinity Street, Cambridge, CB2 1TA**

### AGENDA

**13:45** Registration and networking with refreshments

**14:15** Introduction to Automotive & Transport SIG from **Andrew Ashby, Plextek Consulting**

**14:25** Welcome from event sponsor **Steven Edwards**, Marketing and T&M Sales Manager, National Sales **Rohde & Schwarz**

**14:35** **Sessions chaired by SIG Champion, Nigel Wall, Climate Associates**

**'Ticketing and Information Innovation in Rail'**

**Mostafa Gulam**, Head of Technology, **Rail Settlement Plan, ATOC**

Providing an overview of innovation in rail ticketing and information now and in the future, covering:

- Mobile Apps
- Smartcard ticketing
- EMV Ticketing
- NFC Capability

**14:55** Q&A

**15:00** **'The Tornado Story: from Dream to Steam on the Digital Railway'**

**Rob Morland**, Director, Electricals and Trustee, **A1 Steam Locomotive Trust**

This talk will describe how a group of enthusiasts built a new main line steam locomotive for the 21st century. Rob Morland will talk about the work required to make technology from the 1940s suitable for working on the modern railway, including addition of electronic power control, LED lighting, digital radio communications, GPS tracking and provision for ERTMS and DAS.

**15:20** Q&A

**15:25** **'ICT – Integral to our future'**

**Kevin Payne**, Head of ICT Upgrades, **London Underground**

**15:45** Q&A

**15:50** **Refreshments and networking**

**16:20** **'Shining a light on Dark Data to Increase Asset Availability'**

**Richard Silley**, Area Sales Manager, **National Instruments**

Operational technology is often not well integrated with core IT infrastructure creating silos of dark data. By creating a data strategy to bring visibility to operational data, compelling value can be realised through new found wisdom. In this presentation we will explore the value chain of data, the challenges associated with extracting value from operational data, and look at the business case driving the adoption of remote condition monitoring as a way of increasing asset availability.

**16:50** Q&A

**16:45** **'Keeping up with the customers: Innovating to deliver a better railway for a better Britain'**

**Tim Lane**, Technical Strategy and Innovation Manager, **Network Rail Telecom**

**17:05** Q&A

**17:10** Panel session with all speakers chaired by **SIG Champion, John Okas, Real Wireless**

**17:40** **Complete evaluation forms**

**17:45** **Event closes**

Delegates are invited to attend the Founders' Dinner pre-dinner drinks, which are taking place at Gonville & Caius College in the Green & Red Rooms and are kindly sponsored by Rohde & Schwarz

With the permission of the speakers, presentations will be loaded to the CW website 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](http://www.cambridgewireless.co.uk)

## Profile of sponsors

### Rohde & Schwarz UK

Rohde & Schwarz UK Ltd has been the UK subsidiary of Rohde & Schwarz GmbH for 40 years. Based in Fleet, RSUK employs 105 people to provide dedicated sales, services and support to customers across the UK and Ireland. Rohde & Schwarz has designed and manufactured the highest-quality specialist products in Germany for 77 years across a wide range of technologies and industries, including wireless, broadcast, aerospace, defence and security markets. For more information please visit [www.rohde-schwarz.co.uk](http://www.rohde-schwarz.co.uk)

## Profile of SIG Champions

### Andrew Ashby, Plextek Consulting

Graduated in Electronic Engineering, Andrew Ashby has spent over 20 years in blue chip major semiconductor manufacturers in Field Applications, Account Management, Global Sales and Business Development roles. Since then he has held the sales director role in a Cambridge based technology start-up company and now heads up strategic accounts and new business development activities in the automotive and transport sectors for Cambridge based Plextek Consulting. In this role Andrew is responsible for bringing together innovators, T1s and OEMs, to deliver both innovative solutions and established methods and capabilities from other industry sectors, into the automotive supply chain. For more information please visit [www.plextek.com](http://www.plextek.com)

### Tom Blackie, RealVNC

Since joining RealVNC in 2009 Tom has lead the mobile division pioneering integration of phones with in-vehicle systems. Prior to RealVNC Tom held executive positions in a number of technology companies providing revolutionary wireless and software products. Including Head of Operations at the Olivetti and Oracle Research Laboratory; Founder and VP Engineering at NASDAQ listed Adaptive Broadband; Managing Director of Audentify (a division of Autonomy Systems PLC); and COO at AIM listed Ubisense. Tom graduated in Electrical and Electronic Engineering from Napier Edinburgh and holds an MBA from Ashridge Business School. For more information please visit [www.realvnc.com](http://www.realvnc.com)

### John Okas, Real Wireless

John has worked in wireless and telecommunications throughout his career. Initially with Motorola and Racal in engineering and product marketing roles. He was a founding director of NTL (now Arqiva), initially as Business Development Director building and managing the complete commercial organisation. He also managed the R&D Group which developed one of the first commercially available MPEG video compression systems. Then as Managing Director - Telecommunications he was responsible for growing NTL's wireless business and entering the fixed telecommunications and satellite services markets. Moving to Pell Frischmann the consulting engineers, he started a telecommunications business and was involved in several large transportation projects including the Highways Agency's NRTS Project which updated the motorway communication systems. Currently he operates as an independent consultant covering technical, commercial and product strategies. He works with other consultancies including Real Wireless, the independent wireless experts, who develop strategy, policy and practical solutions. John has a close interest in the IoT/M2M market within the transport sector; he worked with the Weightless SIG at its formation to help identify market requirements. For more information please visit [www.realwireless.biz](http://www.realwireless.biz)

### Nigel Wall, Climate Associates

Nigel Wall is an independent system engineering consultant and Director of Climate Associates Ltd: CAL helps organisations optimise ICT system design based on understanding the whole life carbon footprint cost of deploying innovative ICT technology compared to using current systems. Climate Associates are leading work with ITU-T SG5 and ETSI in standardising the analysis and in determining best practice. Nigel is also involved with Intelligent Transport Systems – "connected cars" he is the Chair of the ITS UK Communications SIG and the Land Navigation & Location Group at the Royal Institute of Navigation. For more information please visit [www.climate-associates.com](http://www.climate-associates.com)

## Profile of speakers

### **Mostafa Gulam, Rail Settlement Plan, ATOC**

Mostafa Gulam is the Head of Technology at the Association of Train Operating Companies where he has been since 2006. Here, he is responsible for:

- providing strategic leadership and oversight in respect of information technologies, ticketing technologies (Smart Ticketing, EMV, NFC, ITSO, Mobile, Self Print and Barcode) and systems development as they affect RSP and the railways
- closing working with stakeholders such as TOCs, DfT and TfL
- representing RSP and ATOC on relevant technical bodies

Prior to his current role, Mostafa was the Technical Manager (Retail) at ATOC from 2006 until 2012. Here he was responsible for the rail industry input for the ITSO on Prestige project, ITSO on Rail specification development & facilitation and the development of retailing & ticketing standards for use in the rail industry.

Mostafa has also worked for Electronic Data Systems between 2001 and 2006, primarily on the London Oyster card system. For more information please visit [www.atoc.org](http://www.atoc.org)

### **Tim Lane, Network Rail Telecom**

Tim Lane is Technical Strategy and Innovation Lead for Telecoms at Network Rail which owns, manages and maintains the UK's third largest telecommunications network. Tim came to British Rail in 1990 from Philips Telecom where he worked in asset management and radio system support roles since joining the company in 1980 as a Pye Telecom student engineer. Within the railway industry, Tim has led a number of radio systems implementation programmes including the first-fit of multiple systems on the Channel Tunnel Rail Link and Merseyrail, Liverpool's underground railway network. Tim is an active participant in the RSSB Future Communications and Positioning Systems Advisory Group. In the wider industry he is involved with both the UK and European future communications specification groups and the Federation of Communication Services Critical National Infrastructure Group; work which is vital in aligning Network Rail's evolving telecommunications requirements to those of the wider UK and European rail, CNI and mobile industries.

Network Rail owns, manages and develops Britain's railway – the 20,000 miles of track, 40,000 bridges and viaducts, and the thousands of signals, level crossings and stations (the largest of which it also runs). In partnership with train operators it helps people take more than 1.6bn journeys by rail every year - double the number of 1996 - and move hundreds of millions of tonnes of freight, saving almost 8m lorry journeys. For more information please visit [www.networkrail.co.uk](http://www.networkrail.co.uk)

### **Rob Morland, A1 Trust**

Rob Morland is Director, Electricals and Trustee of the A1 Steam Locomotive Trust – the organisation that built a new LNER A1 'Pacific' steam locomotive from scratch for operation on the UK main line. Rob designed and built the A1's electrical system as a volunteer in his spare time. Completed in 2009, No 60163 'Tornado' rapidly became a celebrity after its naming by HRHs The Prince of Wales and Duchess of Cornwall, and its star role in Top Gear's 'Race to the North' programme, featuring Jeremy Clarkson on the footplate from Kings Cross to Edinburgh. A communication engineer by training, Rob spent his early years designing custom LSI circuits at Philips before joining PA Technology in Melbourn in 1981. He helped Racal launch the UK's first cellular radio network and directed the Alvey VLSI programme before moving to Scientific Generics, now Sagentia, to lead the company's communications division. He was in at the very start of Cambridge 3G and was a Director of both C3G and CW until 2013. Rob has been involved in several startups and spinouts during his career and now runs his own company, Astutum, which is a Founder Member of Cambridge Wireless and helps people make money out of technology. As Rob points out, this is not the same as making technology out of money. For more information please visit [www.a1steam.com](http://www.a1steam.com)

### **Kevin Payne, London Underground**

A Chartered Electrical Engineer and a Programme Manager, with 30+ years' experience in the urban and suburban railway industry. Has contributed to several railway electrification projects, metro extensions, and major line-capacity upgrades in various capacities. Became involved with information and communications technologies relatively recently, because of their transformative capability. For more information please visit [www.tfl.gov.uk](http://www.tfl.gov.uk)

### **Richard Silley, National Instruments**

Richard is currently responsible for managing NI's business across the South and East of England. With a company mission to equip engineers and scientists with systems that accelerate productivity, innovation, and discovery, the portfolio of business is understandably very broad. Richard is actively involved in many facets of the UK science & technology community and facilitating innovation in the area of the Smart Infrastructure is a current focus area. Prior to this Richard worked in business development for NI's wireless and semiconductor business where amongst other things, he led collaborations with industry and academia to develop next-generation wireless test beds. Richard joined National Instruments back in 2007 after graduating from the University of Southampton with a degree in Electronic Engineering, and has also spent time in both Applications Engineering and Technical Marketing. For more information please visit [uk.ni.com](http://uk.ni.com)