

A Cambridge Wireless Connected Devices SIG event
Kindly hosted by Anglia Ruskin University
'Auracast™ – changing the wireless audio experience'

7th March 2024

The **Connected Devices SIG** is championed by Paul Green of **Iotic Labs**, Nick Hunn of **WiFore**, and Tim Whittaker of **Cambridge Consultants**.

Venue: LAB 002, Anglia Ruskin University, East Road, Cambridge CB1 1PT

AGENDA

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| 13:30 | Registration and networking over refreshments |
| 14:00 | Welcome & Introduction from Event Chair
Tim Whittaker, Cambridge Consultants & Cambridge Wireless SIG Champion, |
| 14:05 | Welcome from our host,
Dr Nick Pugh, Deputy Dean for Research and Innovation, Faculty of Science and Engineering, Anglia Ruskin University (ARU) |
| 14:15 | 'Introducing Auracast'
Nick Hunn, CTO, WiFore Consulting
Auracast is set to make the biggest change the way we experience audio since the introduction of stereo in the 1960s. This overview explains the potential of ubiquitous, broadcast audio for product design and the user experience. |
| 14:35 | Q&A |
| 14:40 | 'Auracast for the public realm'
Julian Pieters, Managing Director, Ampetronic
How Bluetooth Auracast looks set to transform delivery of public services with audio, replacing all of the existing solutions for hearing accessibility. I will talk about newly launched systems for public spaces, initial market responses, expectations for rate of adoption, and how we see the technology as a platform for disruptive change. |
| 15:00 | Q&A |
| 15:05 | 'Audio accessibility for all – opportunities and challenges for Auracast'
Dr Alastair H. Moore, Technology Lead, RNID
In this talk I will explain why Auracast is exciting for people who are deaf or have hearing loss, focussing on specific use cases and accessibility barriers. By considering how users might interact with streams in different contexts I hope product and system designers will be inspired to implement the necessary infrastructure and user interfaces to ensure that the communities RNID support are able to realise the full benefits. |
| 15:25 | Q&A |
| 15:30 | Refreshment break |
| 16:00 | Session Chaired by SIG Champion, Tim Whittaker, Cambridge Consultants |
| 16:00 | 'Bluetooth LE Audio sharing (Auracast?) inside and outside the home'
James Taylor, Product and Strategy Leader for Connected Products, Frontier Smart Technologies
Introduction to Frontier Smart Technologies and introduction of our turnkey module, AURIA, that supports BT LE Audio including BMS/BMR mode. AURIA was recently launched and is currently being designed into a range of in-home audio products. |
| 16:20 | Q&A |

16:25 'Whose Sound Is It?

A Discussion of Configuring Bluetooth LE and Auracast Pre- and Post-Broadcast'

Dr William Campbell, Deputy Head of School for Music and Music Technology, Anglia Ruskin University

Immerse yourself in the world of Auracast, where the sound is truly yours! My presentation explores the exciting potential of Bluetooth LE Audio and Auracast configurations, empowering broadcasters and listeners. Discover how pre-broadcast configurations tailor content and accessibility while post-broadcast options allow personalised listening experiences. Auracast opens doors to a future of inclusive and engaging audio wherever you go, from live concerts to museums and public spaces. So, get ready to ask, "Whose sound is it?" and unlock the power of choice with Auracast!.

16:45 Q&A

16:50 'Auracast - testing the 'tricky' bits'

Jan Slodičák, Wireless Software Engineer, RFcreations

Jan will discuss and demonstrate how a new class of Bluetooth test equipment was required to test the 'tricky' bits in Auracast, and how new connection techniques are enabling consumer ease of access.

17:10 Q&A

17:15 Open Forum with all speakers chaired by Tim Whittaker, Cambridge Consultants

17:30 Closing remarks and event closes

With the permission of the speakers, presentations will be available upon request after the event.

Profile of organiser

Cambridge Wireless - www.cambridgewireless.co.uk

Cambridge Wireless 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.

Profile of host

Anglia Ruskin University (ARU) - www.aru.ac.uk

ARU is an innovative global university with students from 185 countries coming to study with us. We are one of the top 40 universities in the UK. Our community is incredibly important to us, and we're proud of the role we play in our cities and the wider region – including the positive effect on jobs and the local economy. Students, businesses, and partners benefit from outstanding facilities, which include our new School of Medicine in Chelmsford, and Science Centre in Cambridge. Many of our facilities, activities and events are open to the wider community.

Connected Devices SIG

This event has been organised and delivered by the Connected Devices SIG Group and we are very grateful to our Industry Champions who are;

- **Paul Green, Creative Director, Iotic Labs** - www.iotic-labs.com
- **Nick Hunn, CTO, WiFore Consulting** - <http://www.wifore.com>
- **Tim Whittaker, Wireless Audio/Visual & DECT systems, Cambridge Consultants** - www.cambridgeconsultants.com

Further information about our Champions and the activities of this SIG Group can be found at the CW website www.cambridgewireless.co.uk/groups/connected-devices

Profile of speakers

Nick Hunn, CTO, WiFore Consulting - <http://www.wifore.com>

For the past thirty years Nick 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, IoT, wearables, 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.

James Taylor, Product and Strategy Leader for Connected Products, Frontier Smart Technologies - www.frontiersmart.com

James leads product management at Frontier Smart Technologies and has twenty years of product development and product management experience within the telecom and wireless industry. Previously worked on smart Wi-Fi mesh at AirTies Wireless Networks, wireless IP video streaming at Amino Communications and whole home Wi-Fi at TalkTalk. Currently working on digital radio and connected audio solutions based on Bluetooth Low Energy Audio and Wi-Fi at Frontier Smart Technologies.

Dr Alastair H. Moore, Technology Lead, RNID - <https://rnid.org.uk>

Alastair is Technology Lead at the RNID, the national charity supporting the 12 million people in the UK who are deaf, have hearing loss or tinnitus. He obtained an MEng degree in Electronic Engineering with Music Technology Systems and PhD in binaural technology, both from University of York. He spent 3 years as a hardware design engineer at Pure designing DAB and Wi-Fi-based consumer audio products before returning to academia as a post-doctoral researcher at Imperial College London. Over more than a decade he worked on acoustic signal processing algorithms for sound scene awareness and speech enhancement and algorithms, working with a variety of industry partners, and academic collaborators. In 2023 he joined RNID, hoping to increase the awareness of and adoption of hearing technology. As part of his role, through consultation with RNID's user research panel, he advises major brands on how to make their products and services more accessible.

Dr William Campbell, Deputy Head of School for Music and Music Technology, Anglia Ruskin University - www.aru.ac.uk

Dr Campbell is Deputy Head of School for Music and Music Technology. He has expertise in audio and music technology, specifically specialising in dynamic range compression of musical signals, signal analysis and their psychoacoustic implications. Dr Campbell received a first-class BSc (Hons) degree in Audio and Music Technology in 2008 and a PhD studying the 'The Effect of Dynamic Range Compression on the Quality and Loudness of Commercial Music' in 2019. His research has an international profile ranging from conference presentations to journal articles. He started his audio career as a touring live sound engineer and currently works as a music engineer and producer, and postproduction filmmaker. Dr Campbell is also a certified Wwise instructor, teaching sound design and music implementation for games. He is a Fellow of the UK Higher Education Academy, a Member of the Music Producers Guild, and a Member of the Audio Engineering Society.

Julian Pieters, Managing Director, Ampetronic - www.ampetronic.com

Julian is the Managing Director of Ampetronic Ltd, a leading provider of Assistive Listening solutions based in the UK. After starting his career developing medical devices with Cambridge Consultants, Julian acquired Ampetronic and set about widening the availability of hearing assistance solutions. He has assembled the largest global group of hearing access businesses within the Allvida Group, and is investing in new technology platforms to enable better hearing in public spaces, in particular with Auracast.

Jan Slodičák, Wireless Software Engineer, RFcreations - www.rfcreations.com

Jan Slodičák is a multi-disciplined engineer who combines robotics and scoring goals on the football pitch as his hobbies, who is as comfortable on a snowboard as on a cycle, not in Cambridge of course. He is currently ensuring that LE Audio and Auracast offer the best experience for end consumers by enabling innovative measurement tools.