

New Digital Technology project boosts connectivity at Mass Events

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A groundbreaking digital project has successfully trialled innovative technologies designed to enhance digital connectivity at large-scale events, such as concerts and sporting events. The Liverpool LCR HDD project deployed its new Open RAN HDD private network at the Salt & Tar Music Festival, showcasing its potential to improve the overall experience for attendees.

The project, a collaboration between the University of Liverpool and the Combined Authority, utilized Open RAN technology to create a private network capable of delivering high-capacity, open Wi-Fi services. This cutting-edge architecture offers a cost-effective, energy-efficient, and unobtrusive solution for meeting the demands of high-density areas.

The Salt & Tar Music Festival provided a real-world testing ground for the Liverpool LCR HDD project, allowing researchers to evaluate the technology's ability to support e-ticketing, drink and food sales, and other essential services in a secure and efficient manner. The trial demonstrated the network's capacity to handle large crowds and deliver a seamless user experience.

As part of the project, further trials will be conducted across the region at various music, transport, and sports venues to assess the HDD network's performance in different settings. The aim is to identify the optimal applications for this innovative technology and explore its potential to improve connectivity at a wide range of events.

Councillor Liam Robinson, Liverpool City Region Combined Authority Cabinet Member for Innovation, said: "It was brilliant to see the trial get under way at Salt and Tar's recent Music Festival. Testing this innovative technology in a real-life setting is an important milestone for the project and a key part of

establishing how effective the technology can be in improving connectivity at large events to improve the experience for those attending.

“We will use the lessons learnt and data analysis from this event as we roll out trials in different types of venues in the forthcoming months.”

Professor Joe Spencer, from the University of Liverpool, who is leading the Liverpool City Region HDD project, said:

“I am delighted that the project has conducted its first trial in a real-world setting. This has been a real team effort involving excellent project management and partner participation and buy in.

“Using this new technology in this type of setting is innovative and ambitious project. This trial will provide us with data that we can analyse to assess the different components of the technology to see if it exceeds the performance of current and traditional technology solutions.

“We will learn more and more about the technology with every trial we conduct and I want to thank project partners and Salt & Tar for their support.”

Ann Williams, Programme Director, Liverpool5G, said: “This was LCR HDD’s first trial of Open RAN 5G SA service in a real-world high-density environment.

We successfully provided connectivity for point-of-sale terminals via 5G MiFis and some public internet access using a very high-capacity WiFi AP with 5G back-haul to the on-site network. In addition, we tested the ‘Group QR code’ eSIMs.

“We were able to demonstrate end-to-end functionality of the Open RAN 5G SA network and we will use the technical insights and data analysis gained from this event as we carry out further trials in the forthcoming months.”

Councillor Paulette Lappin, Sefton Council’s Cabinet Member for Economy, Regeneration and Skills, said:

“I am delighted that our Salt and Tar venue in Bootle was able to support this innovative trial at our recent Music Weekender, which was attended by over 11,000 music lovers from across the world.

“We want to enhance the already great experience for our audiences and our traders at Salt and Tar events and look forward to seeing the benefits of the Liverpool HDD in the future.”

The Liverpool City Region HDD consortium is led by the University of Liverpool and involves a range of partners, including the Liverpool City Region Combined Authority, ITS Technology Group, Liverpool John Moores University, and technology leaders from the UK and beyond.

The project is supported by a £9 million investment from the Department of Science, Innovation and Technology and aims to demonstrate the feasibility and reliability of Open RAN technology for enhancing connectivity in various settings.