Liverpool 5G Create – Connecting Health and Social Care

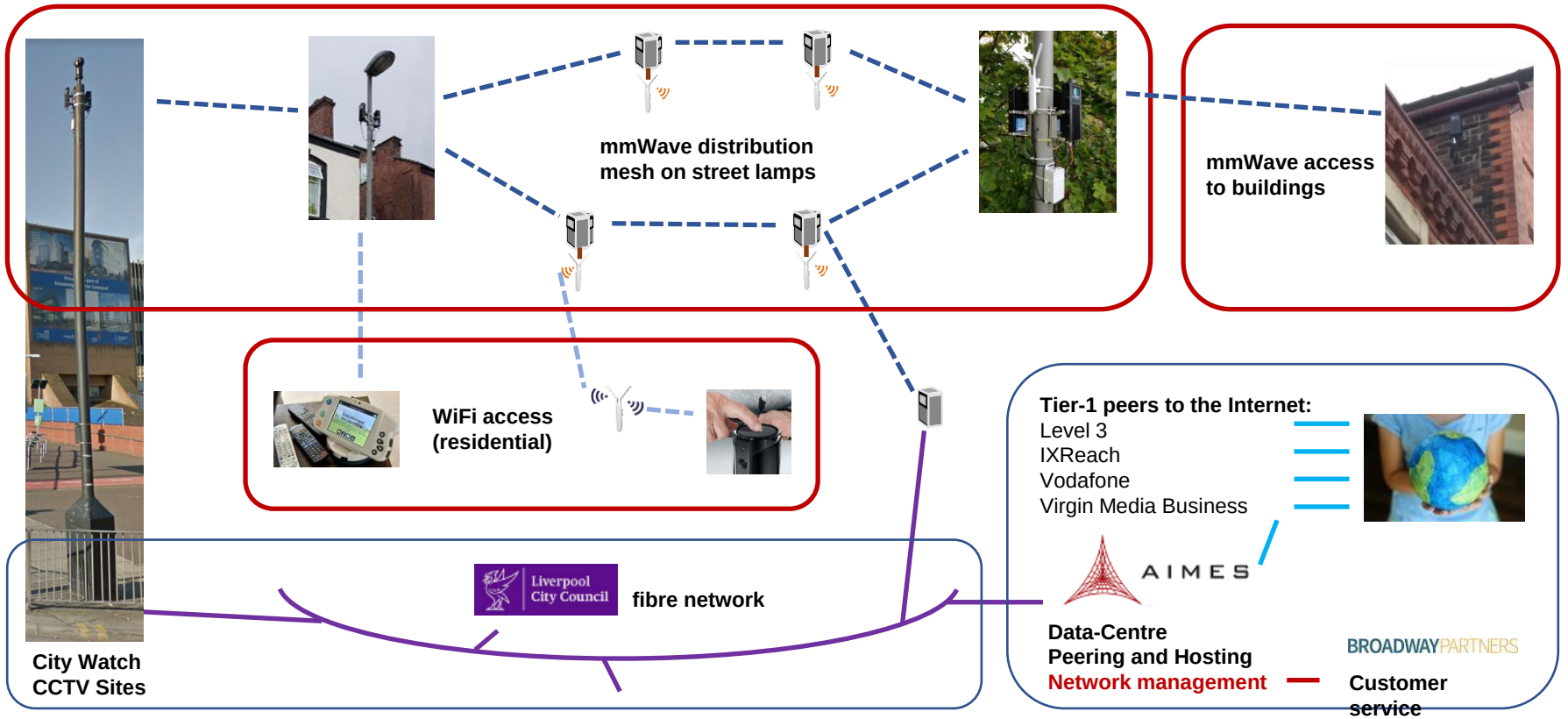
realwireless. independent wireless experts
Docobo towards a better quality of life
NHS Liverpool Clinical Commissioning Group
NHS Mercy Care NHS Foundation Trust
LIVERPOOL JOHN MOORES UNIVERSITY
UNIVERSITY OF LIVERPOOL
e Health Cluster
Liverpool City Council
Blu Wireless
BROADWAY PARTNERS
CGA SIMULATION
AIMES
)) telet research ((

Why the Liverpool 5G Project? What problems are we trying to address?

- There are many **barriers to the adoption** of technology in health and care services. **Access to affordable, reliable connectivity is a key barrier.**
- Digital programmes have increased the quality and responsiveness of services but have not generated significant cash savings.
- Why? Increased use of remote tech leads to **increased data charges** meaning a larger proportion of H&SC budgets are spent on connectivity – we have no control over pricing.
- The current pandemic has led to an increase in remote services but has also highlighted the impact of **Digital Poverty** on **Health Inequalities**.
- By 2025, **analogue telephone services will be switched off** as the UK's telecoms infrastructure is upgraded to digital connectivity. Major implications for the 1.7 million people who rely on telecare in the UK.

Network Deployment

Network architecture



Liverpool 5G – The journey to date

Pre 2018:

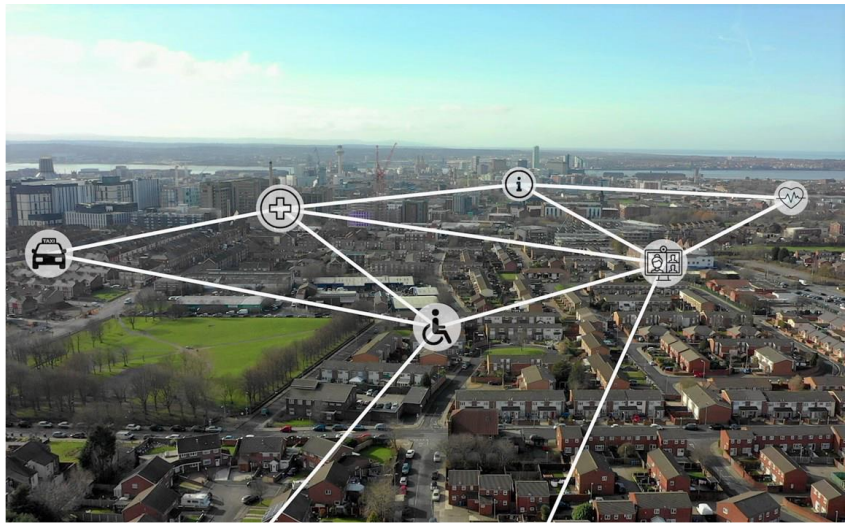
- Established eHealth Cluster, engagement with care homes, domiciliary care providers, supporting living, Local Authority commissioners
- Innovation Network established within Local Authority
- City Council accessed EU funding to enable Digitisation of domiciliary care services

Liverpool 5G Testbed (April 2018 to November 2019):

- Challenge:

"Can 5G connectivity be sufficiently cheap and effective in health and social care provision that it will be cost effective to give free access to those unable to afford either phone or broadband access?"

- Deployed private network - largest mmWave mesh network in Europe, incorporating LoRaWAN and Wi-Fi
- 8 different Use Cases deployed across Health & Social Care
- Demonstrated improved health outcomes for service users
- Estimated potential cost savings to services of £248k per 100 users per year
- 70% of the products/services increased TRL; > £1.1m R&D spend
- Improved collaborative working : > 60 collaborations and partnerships
- > 160 press + media article mentions, > 60 events and activities



Liverpool 5G Create (September 2020 to March 2022:

- Creating an independent 5G stand alone network
- Extending coverage, incorporating cellular capability, 9 new Use Cases across Health & Social Care plus home connectivity for school pupils
- Producing an independent business model and blueprint for other municipalities to implement private networks

www.liverpool5g.org.uk

Liverpool 5G Lessons Learnt

Don't treat as a technology trial:

- The technology is the easy part
- Human factors more challenging

Avoid pilots that have no route to being embedded in services:

- Plan to incorporate in mainstream services
- Treat as a programme of change
- Consider adoption early in the programme – we developed the ARL (Adoption Readiness Level) self assessment tool to filter out products that have not considered adoption thoroughly www.ehealthcluster.org.uk
- Full range of stakeholders involved as early as possible

Be clear on the needs you are addressing:

- Understand the challenge from all stakeholder perspectives
- Use cases need to have measurable benefits and realistic methods of data collection
- Individuals more concerned about the benefits rather than the enabling technology

Access to affordable, reliable connectivity in the home is key :

- Digital services need good connectivity at both ends of the connection
- Covers care homes, supported living and individuals homes
- Brings specific challenges and huge variety of settings

Improving quality of life

Reducing loneliness

Improving health

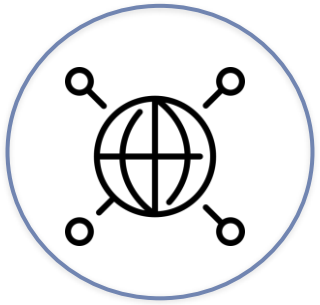
Reducing need for health and social care services

Reducing digital exclusion

www.liverpool5g.org.uk

Key challenges we are addressing:

Many households do not have access to affordable, reliable connectivity



The digital divide has increased exponentially during COVID-19. The impact of Digital Poverty is widely recognised

The city region faces vast, complex health challenges, increasing health inequalities

Slow adoption of tech solutions in community and social care services

Increasing NHS and LA spend on connectivity within services

Contact us

Rosemary Kay
Project Director

rosemary@ehealthcluster.co.uk
07973 655043

Ann Williams
Commissioner and Contract Manager

ann.williams@liverpool.gov.uk
07515 500880

Liverpool 5G Create
www.liverpool5g.org.uk