CityVerve, Synchronicity & Open Ecosystems

Prof John Davies, BT
£15M collaborative R&D project, with HMG investing £10M

Smart Cities: doing more with less in a time of financial constraints

CityVerve will provide Smart City demonstrators, networks, platforms and infrastructure to enable open innovation

Central to this will be BT’s IoT data hub, interoperating via Hypercat with a range of other platforms

Reproducible, sustainable and scalable
CityVerve’s Use Cases:
What is being built?

- Transport and Travel
- Energy and the environment
- Health and Social Care
Talkative Bus Stops

Smart Parking

Transport and Travel

Smart Cycling

Sensing Trams

Road Safety
The IoT Data Hub
• Information Aggregation
• Economies of scale
• Uniform Access
• Maximise Value of Data
• Lower barrier to participation

Applications
- City Motion Map
- Supply Chain
- Smart Energy Usage
- Smart Water Usage
- Connected Buildings
- Air Quality
- Assisted Living
- Smart Street Lighting
- Connected Home
- Smart Waste Management
- Smart Parking
- Connected Vehicles

BT IoT Data Hub

(On-boarding of Information)

Developers

(Connecting applications to information)
Current BT Manchester data

>200 data feeds

Manchester Parking Data
Manchester Automatic Traffic Counts
Manchester Air Quality data
Smart Buildings data
Live and scheduled train
Live and scheduled bus
Cycling usage patterns
NAPTAN (bus stop locations)
Met Office Weather Observations
Highways England – trunk route traffic speed and density
Interoperability will be essential

InnovateUK project driving data hub interoperability

- **Hypercat specification (BSI) co-authored by BT**
- A machine-readable data catalogue
- Breaking down silos
- Fostering innovation
- Maximising the value of data
Synchronicity & CityVerve: data interoperability

- Approach is to adopt minimal interoperability model (MIM)
- Use Hypercat to identify CityVerve data feeds
- Create a mapping from Hypercat to the FIWARE Orion Context Broker
- Access CityVerve data via Orion
- Initial implementation has proved the feasibility

- *CityVerve data from BT will be available to the Synchronicity ecosystem and open call partners*
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Thanks for listening