Scaling the Geo Summit - Smart Summit 2017

This year's Smart Summit event took place at the Business Design Centre in Islington over two days in September.

The conference, which had twenty exhibitors, was split into six streams – Smart Home, Smart Cities, Smart Insurance, Smart Retail, Smart Utilities and LPWAN (Low Power Wide Area Networks). The exhibition was dominated by products for the smart home and it was the Smart Home conference stream that attracted most attention from delegates.

Where's the Geo?

This was an event that was strangely devoid of 'geo'. Indeed the only geo word that I heard over the two days was 'geofence'. When objects are tracked using GNSS, a geofence is a geographic line in the tracking GIS which sets off an alarm when any of the objects crosses the fence into a 'prohibited area'. Does this mean that the spatial component attached to every feature, static or moving, in a smart city has been deemed a non problem? For someone whose business is spatial, this is quite disorienting. Does 'spatial' really not warrant any discussion?

The overall impression was of disordered thinking. At least one speaker said that data has no value, whilst another urged caution when using data, if you didn't know its quality. Obviously data must have value because the process of adding value means that there must be something to add value to. The Internet of Things (IoT) is, according to the consensus of speakers, a wild west with no standards and is therefore an interoperability nightmare. A contrast was drawn between telecoms, where standards are agreed before deployment and the IoT, where deployment just goes ahead.

Remote Home Control

From a business point of view, the smart home is currently the attractive proposition. It enables a remote relationship between the appliances in the home and the home owner when he/she is away. Its business model is simple and easy to monetise and this, no doubt, accounted for the number of smart home stands in the exhibition.

Smart Homes are therefore easy to visualise, but what about the smart city. Chairman for the first session, Martin Garner from CCS Insight, suggested that the topic had been dominated by a period of "furious hype" but that in the last few months practitioners have brought realism to their view of IoT. Other speakers differentiated between smart that can save money and smart that can make money and also drew a distinction between existing cities that have to be made smart by retrofitting and new cities, which will be smart by design. Patrice Slupowski from Orange said that he had changed all references to machine to machine (M2M) technology on his presentation slides to IoT and 'data' to AI. There was some healthy cynicism around.

Define the Problem

With smart cities, working out a business model is rather more difficult. Two speakers said that the only effective way to implement a smart city is to have firstly defined a problem which needs to be solved, making sure that all the stakeholders have been consulted. At the same time others clearly link smart cities to open data. Data owners provide data to a smart city portal and application developers use it. This was succinctly presented by Claire Davis from Cork Smart City Gateway.

For smart cities to work, there have to be standards and there has to be an attitude of sharing – what was described as an open ecosystem philosophy. In many cases, one got the impression that these fundamentals had not been addressed, whilst there had been great work in various broad application areas. Several speakers mentioned the sharing society and that smart city technology will enable it.

Infrastructure Hurdles

Sensors are getting smaller and cheaper. As an example, Dattatreya Gaur from Robert Bosch Engineering said that air quality sensors, which used to be housed in sheds next to the roads, are now the size of a shoebox and can hang from lamp posts. For communications, 5G is seen as the solution but government regulation and what is seen by the industry as the inefficiency of planning authorities are significant barriers to deployment. One speaker mentioned that Royal Mail vans are permitted to park on yellow lines, so why can't telcom providers have similar freedoms.

The question of safety and security came up several times, both in terms of system hacking as well as keeping people safe. In the former case it was argued by some that open standards hinder data security.

Power Problem

In utilities, power is the problem that needs to be solved. Suppliers need to devise a new model that is suitable for the renewable age. This means dealing with many smaller suppliers (eg photovoltaic and wind) instead of a few large generators.

Insurance companies use tracking data to monitor young drivers. This encourages them to drive well which leads to lower premiums and fewer accidents – which is a benefit to everyone. Conversely, persistent bad drivers can be denied insurance. The business model works because it is simple. Again, this is not directly a smart city application and only becomes so if data representative of the city is used to manage the city.

Transport Trials

Transport is another application area. Whilst every city claimed to have unique problems, they all agreed that traffic congestion was one of them. Representatives from Oxfordshire County Council, Tampere in Finland, and from Electric Cab, in the USA, came together to discuss the future of transport. Most of the data required is produced by the local government and they have been innovating. Parking was seen as a major problem, which could be solved by relating spaces available with those trying to find a space. Indeed, one speaker said that at any one time 30% of drivers in a city are looking for a parking space. To assist with this, sensors are placed in each street parking space, which detect when there is a vehicle parked over it. To tackle air quality issues in real time, data from sensors around the city are collected in real time and used to inform adjustments to traffic flow patterns. In Oxfordshire, the car culture is seen as a major issue because the city does not see cars as the future of transport in city of Oxford. Others reported that there are signs that attitudes are changing, with significant reductions reported in the number of young people getting a licence as soon they become legal. Reduction of carbon dioxide is the overall aim, and Oxford is aiming to introduce a zero emissions zone in 2020 whilst realising that it will not be achieved until a decade later or more.

BIM Minus Five Years

Whilst it was disappointing that the conference did not focus on the spatial data issues, views of the problems and how they were being tackled by those taking other perspectives was useful. Smart Cities seem to be at a stage of development equivalent to BIM about five years ago. As with BIM, the term Smart Cities brings management of the city together under one banner and that highlights the need for collaboration and standards. But historically, when constructing a building, surveyors, designers, constructors and operators should always have been collaborating to achieve a particular goal in any case and, in the digital age, the obvious focus is digital modelling of the building. The need for a digital model of the city was barely mentioned at Smart Summit.

Next year Smart Summit will be rebranded as ConnectedWorld Summit and will move to Olympia.

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