

The Internet of Things in logistics

There are still a great many unknowns when it comes to the Internet of Things. But it has arrived, and the logistics sector is uniquely placed to benefit from all it has to offer, as long as it is aware of the risks

Logistics has always been about connectivity. But today, that connectivity is intelligent like never before – and if it is not, it certainly should be. Modern logistics encompasses all the links in supply chain: transport, warehousing, inventory, manufacturing, wholesale, retail and after service – everything that facilitates the movement of goods and more. The logistics sector is vital to the global economy.

Today, logistics and supply chain are not just concerned with the physical movement of goods, but also with information flows – now a major focus in the sector. To keep pace, it is essential that logistics is flexible, and, increasingly, more intelligent. Enter the Internet of Things.

The term Internet of Things, or IoT, was first coined by Kevin Ashton while working at Procter & Gamble in 1999 as a way to describe connectivity between physical machines – or ‘things’ – via the Internet/network. And, while this connectivity of components has been in existence for some time in the guise of pervasive computing, it is only now that pace is gathering in the way that it is examined as a business enabler. It is worth noting, that at the time of coining the term IoT, Ashton was working on RFID, or Radio Frequency Identification (wireless scanning) for the supply chain, a technology that has long been supporting the flow of goods and one that could well be considered a stepping stone to the IoT.

Falling technology costs and developments in complementary fields including cloud and mobile are contributing to an uptake of IoT in the consumer space and organisations are beginning to take notice as they seek to find ways of using it to improve business resilience. The aforementioned Mr Ashton is now working for US-based electronics manufacturer Belkin, whose WeMo suite of home automation IoT products for the consumer market is gaining strength after its launch in 2012.

With this hyper-connectivity, new opportunities arise. The key benefits to the logistics sector are



in service feedback and increased cooperation. IoT integrates all the parties in the supply chain, helping to connect weak links in the chains to achieve seamless connection. Each action of each participant is therefore made more transparent, making logistics service integrated and rapid, improving resilience and helping to avoid business interruption. This in turn can help drive down the costs of industrial and commercial activities, at the same time as improving product flow.

Increased connectivity also means increased security risks – even more so when human intervention is necessarily lessened. The broader the connection, the broader the risk. Extrapolated to business, the risks can seem severe. A hack attack on a consumer’s TV is one thing; hacking into a vehicle’s safety system quite another. And then there is the issue of data privacy. According to the Economist Intelligence Unit’s (EIU) *Internet of Things 2013 business index: A quiet revolution gathers pace*, lack of trust and concerns about data privacy are said to be hampering the take up of the IoT at least in the consumer market.

There is a lot that is not yet known about the IoT. But that’s not stopping it. As take up gathers pace in companies and services, challenges will be faced when it comes to regulation and standardisation. A lack of know-how and skills when it comes to the IoT will also need to be addressed. As it currently stands, the only learning

taking place is of the successes and failures of those companies who have already adopted the IoT and begun to integrate it into their business processes.

At the government level, logistics is at the heart of UK Prime Minister David Cameron’s 2014 pledge of £45m to help develop the IoT, referring to it as the new revolution, and a development that will help make transport more efficient. This is on top of the UK’s recent pilot, led by its innovation agency the Technology Strategy Board, whereby a project to create a smart transport and logistics ecosystem was developed. And this is only the beginning.

Meanwhile, in the business community itself, interest does not appear to be completely matched with investment sums, this does look set to change. The EIU’s report, which was conducted across the globe, suggests that a staggering 96% of organisations polled expect to be using IoT within the next three years. And so with the strides made thus far, we seem on the cusp of a step change in this use of technology, and it seems clear that those companies that fail to get to grips with IoT now will risk falling behind those embracing the future in digital logistics.

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