

## Retail, the Internet of Things and why it's important

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Now is the time for retailers of all shapes and sizes to evaluate the broader role the Internet of Things could have in their organisations, argues Miya Knights, a senior research analyst with IDC Retail Insights.

The 'Internet of Things' (IoT) looks set to be a disruptive technology trend in retail. And, if the numbers of visitors that attended my session on the same subject at this month's RBTE is anything to go by, retailers think so too. But it is important, particularly at this nascent development stage, to separate hype from reality.

Firstly, what is IoT? IDC defines IoT as a network connecting (either wired or wireless) devices or "things" that can enable autonomous provisioning, management, and monitoring. Broadly speaking, this translates to enabling two-way networked communication between any internet connected, IP-addressable devices and central provisioning, management, and monitoring systems. Such devices could be customer or store associate handhelds or wearables, as well as networked equipment or sensors, in mannequins, fridges or at the shelf-edge, for example.

IoT first emerged as a viable concept when the number of internet-connected devices overtook the number of people using them in around 2008-09. Where previously standalone devices existed in isolation, this tipping point heralded the possibility of networked devices proactively being able to communicate their status using sensors and wireless IP protocols.

Since then, the concept of IoT has been quickly embraced. So much so that IDC has forecast that the IoT market will grow from \$1.9 trillion (£1.3 trillion) in 2013 to \$4.6 trillion by 2018, with a CAGR of 19%. The consumer space is leading the way, followed by five other addressable markets, including retail, manufacturing, telecoms and utilities, and financial services.

Take for example, Hive (British Gas) in the UK or Nest (Google) in the US, which both aim to give consumers fine-grained, automated and remote control over smart heating and/or smoke alarm systems, for example. The French electronics chain Darty launched its "Darty button" late last year, which is designed to give subscription-paying customers direct contact with the retailer's helpdesk or after sales service, for what it describes as "prioritised, personalised support".

Examples such as Hive, Nest and the Darty button, coupled with continued consumer adoption of smart, networked devices in their home, on their person or in their hands is why IDC also expects consumer-facing IoT applications to experience the fastest CAGR of 20.6% over the five-year forecast period.

Examining such use cases, it is clear to see that IoT would not exist without the developments around cloud, mobile, social and big data analytics – which IDC refers to as the four foundational pillars of the 3rd Technology Platform (where the first was mainframe-based and the second used the client-server model).

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Just as consumers are already embracing early IoT applications, so some retailers are also already harnessing the benefits of early IoT, 3rd Platform-enabled developments, with the use of radio frequency identification technology – or more regularly described shortened to RFID – to provide real-time track and trace capabilities throughout the supply chain being a prime example.

Consider also the role of GPS technology in location-based fleet and logistics management systems, or the use of machine-to-machine (M2M) communications for the proactive monitoring of systems health and integrity or of data security, for example. This is why IDC found 10% of all IoT investment in 2013 was attributable by retailers, and also why by 2017, annual industry investment will surpass \$466 million (£131 million).

Much of this increased spending is likely to be focused on extending the same benefits of real time, location-based, track and trace capabilities and two-way communications from the back office into the store and customer-facing touch points. This is evidenced as retailers across sectors, like HMV, Spar, Fenwicks and even KFC, are experimenting with Bluetooth beacons to serve more timely and targeted offers and promotions to customers as they are actually in or near the store.

This is why IDC Retail Insights is urging retailers of all shapes and sizes to evaluate the broader role that IoT could have in their organisations now, rather than later. With 40% of retailers we polled citing the cost of initial investments at the scale needed as the number one barrier to adoption, it will pay to work out how IoT can affect the bottom line by streamlining operational processes around monitoring, management and maintenance, as well as by providing a means of tracking and communicating with customers in more effective, timely and relevant ways online, in the store.

Managing security, big data volumes, analytics and network requirements are all challenges for retailers that, if they tackle now, will provide competitive advantage and enable the maximum ROI of IoT investments well into future.

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Link: <http://www.essentialretail.com/news/article/55190a7c7eea4-rbte-2015-retail-the-internet-of-things-and-why-its-important>