COMMERCIAL FEATURE

INTERNET OF THINGS FOR VEHICLES IS DRIVING BUSINESS

With billions of pounds at stake, who will come out on top in the race to capture the potential market for connected vehicles and fleets?

GEOTAB
management by measurement

The internet of things (IoT) is taking over and there's no stopping it. Consumer demand for 24/7 connectivity is shaping the economy of the future. A 2015 McKinsey & Company Global Institute report predicts the potential economic value of the IoT will be $3.9 trillion to $11.1 trillion in the year 2025, with vehicles comprising $210 billion to $740 billion of the total.

The tremendous market potential for connected vehicles in particular will be interesting to watch because of its impact on the automotive industry, transportation systems and the day-to-day lives of people.

But what is IoT in vehicles? A connected vehicle has embedded technology enabling it to connect to the internet, devices and even other vehicles or systems. The IoT in vehicles will deliver a faster, safer and richer experience for drivers. It is now possible for drivers to access information about traffic, road conditions, fuel usage, vehicle diagnostics, driving behavior and more.

And vehicle IoT is increasing in importance. In addition to the commuter car, other types of work and service vehicles are getting connected, including trains, buses and trucks. Companies are integrating vehicle IoT into their IT systems to automate business processes. Fleets of every size rely on connected solutions such as Geotab for monitoring and managing critical information related to productivity, driver safety, fuel consumption and compliance.

In fact, vehicle IoT takes connectivity even further with the tracking of goods. This provides visibility of goods throughout the supply chain, by monitoring the temperature of refrigerated food, tracking the transport status of expensive merchandise or reporting on the driver's health, for example.

Businesses will rely more and more on connected technology and vehicle IoT as they look for ways to improve productivity, efficiency and reduce costs. "The value of vehicle IoT for businesses is the ability to tap into data that will assist in making measured management decisions," says Colin Sutherland, vice president, global sales and marketing, for Geotab Inc.

The benefits of vehicle IoT even extend to society at large. Enabling communication between vehicles and systems, and collecting and analysing data at scale can reduce carbon emissions, alleviate traffic congestion and create safer roads.

But who will lead the connected vehicle market? Auto manufacturers have embraced IoT in response to market demands. A study by PwC Strategy and Das Auto Institut, analysing the connected car industry from 2009 to 2015, identified Volkswagen and Daimler as the top auto makers leading innovation, with Ford, BMW and Toyota close behind. To remain competitive in the future, car companies will have to evolve from vehicle manufacturers to technology providers.

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Technology companies are also poised to become key players in the connected car market. Apple and Google have both developed car dashboard operating systems. Over the next five years, the number of cars using CarPlay and Android Auto will skyrocket into the tens of millions, according to BI Intelligence. The Mobileye smart camera system for vehicles is just one example of a company leading the pack in connected car tech. Technology companies have the know-how and can move quickly compared with auto manufacturers who have a longer product cycle.

Mobile network operators, auto parts suppliers and insurance companies also stand to benefit from the coming IoT boom.

So which regions will see the biggest IoT impact? As reported by McKinsey & Company, the IoT market has growth potential in both advanced and developing economies. The connected vehicle is already taking firm root in Europe and North America. The European Parliament mandate for an eCall emergency auto-calling system on all new cars by April 2018 will further develop the market.

Recognising the expansion of the connected vehicle sector, the US Department of Transportation is developing a plan for measuring and regulating the impacts on driver safety, transportation systems and the environment.

Asia-Pacific is also expected to see growth. The prevalence of mobile devices in China makes it prime territory for development of the connected vehicle industry, *The Wall Street Journal* reports.

The growth of the connected vehicle sector will be affected by a number of factors, as recently outlined by *Forbes*. Some of the key challenges include keeping up with the pace of technology, defining and complying with laws and regulations, protecting the security and privacy of drivers, co-ordinating activities between industries, and delivering solutions at a price that satisfies customers.

There are almost no limits to what the future holds for vehicle IoT. The self-driving car is closer than ever to roll-out and will revolutionise the landscape of cities everywhere. As with any new invention or innovation, it is easy to get excited at the new possibilities offered. However, we must also consider the risks to be able to manage and mitigate them.

E-mail testdrive@geotab.com or connect with us on Twitter, Facebook and YouTube
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