Connected Cars: How Jaguar Land Rover Works With BearingPoint to Benefit Drivers

Lionel Lamy

IDC OPINION

Jaguar Land Rover (JLR) embarked on a connected car project a few years back as part of the company's goal to provide very high level of additional services to its client base, differentiate itself in the high-end automotive market, and ultimately cement customer intimacy and high levels of brand loyalty.

The connected car program comprises four distinct elements: telematics, connected devices, infotainment, and vehicle-to-vehicle and vehicle-to-infrastructure communication.

In the earliest part of the project, where JLR used some small niche consultancies to help itself, partners were needed to help address governance structure, project management office (PMO), and the overall program of work. As Jaguar Land Rover understood the level of complexity and the number of work streams required, it needed to scale up due to internal resource constraints. This is where BearingPoint was brought in.

The reasons for choosing BearingPoint as a main strategic partner included the existing relationship, but most of all the perceived cultural fit, a significant level of flexibility, and a good measure of trust. Jaguar Land Rover needed a partner with breadth and depth of expertise, as well as the ability and willingness to accept unforeseen challenges and quickly provide actionable input in terms of "the management of ideas and the innovation side of things."

IN THIS BUYER CASE STUDY

As part of our research on the Internet of Things (IoT), IDC interviewed JLR's Global Connected Car Director Mike Bell. In his role, Bell is responsible for all end-to-end connected services delivered to all vehicles within the range. This is a broad, cross-functional role ranging from strategy to delivery.

Jaguar Land Rover worked with BearingPoint to establish, refine, and deliver the connected car program, which we see as a major part of the IoT solutions market. This case study takes a look at what drove Jaguar Land Rover to invest in a connected car solution, what the business goals were, and how the company worked with BearingPoint to deliver the solution and its anticipated benefits, while working through the inevitable challenges.

SITUATION OVERVIEW

Before we discuss how BearingPoint helps Jaguar Land Rover and its clients, it is essential to define what the company means by "connected car." Bell was very clear that it covers four key technologies:

- **Telematics.** This is the cornerstone and the largest part of the project. It includes InControl Remote and InControl Secure products. InControl Remote allows clients to use their smartphones or web portals to access and control key aspects of the vehicle. It lets them see where the car is parked and provides them updates on windows/doors lock status, odometer reading, and mileage left. It also offers clients a level of control over doors and windows that can be opened or closed remotely and vehicle lights that can be flashed to find a car in a dark car park.

  Perhaps more importantly (to some users), Jaguar Land Rover offers safety and security features such as emergency call and optimized assistance. In the event of a crash, the vehicle will automatically notify the emergency services by making a voice call and sending location details to enable the emergency services to respond to the crash more quickly. This is particularly important if the person is unconscious while on a country road. There is also a manual button in the vehicle to call the emergency services for other critical situations, and another button to contact JLR or Land Rover Assistance. By using an embedded SIM card in the vehicle, emergency or assistance requests can be triggered through these buttons, creating a voice call and sending data to ensure that help will reach the customer as quickly as possible. Through the connected car program, the company is also able to perform some remote diagnostics on the car to optimize the response time and accuracy during a breakdown call.

  On the other hand, InControl Secure is a tracking solution for stolen vehicles. All of the services mentioned above are open for subscription or can simply be included in the vehicle within its warranty period.

- **Connected devices.** This technology covers the range of solutions and features on offer when people bring their tablets or smartphones into the vehicle. A smartphone integration technology, InControl Apps allows iOS and Android apps to be used. By offering a WiFi hotspot using the antenna on the roof of the vehicle, Jaguar Land Rover is able to offer a much improved quality of service (connectivity) to passengers who intend to use their mobile devices (tablets and/or smartphones) while on the road.

- **Infotainment.** This covers all services brought to the client (driver and passengers) through the touchscreen device(s) built in the car. In addition, it includes services available through end-to-end connections such as real-time traffic information and over-the-air updates.

- **Vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) communication.** In the long term, this will form the fourth pillar of the connected car project. This area is the subject of a number of research projects.

The connected car program is comprehensive and very complex. Delivering this project and making sure it remains in line (or ahead) of market expectation are significant challenges. This is why Mike Bell's role encompasses managing everything from go-to-market strategy, pricing, and marketing materials through to the delivery of services outside of the vehicle, the integration of the vehicle connectivity including end-to-end contracts, the choice of providers, and the user experience in terms of smartphone apps and web portals.

So why do it?

Organization Overview

Jaguar Land Rover is the U.K.'s largest automotive manufacturing business, built around two iconic British car brands: Land Rover, the world's leading manufacturer of premium all-wheel drive vehicles, and Jaguar, one of the world's premier luxury sports saloon and sports car marques.

Under the ownership of Tata Motors Limited, Jaguar Land Rover is transforming its business to realize the full potential of its brands and deliver profitable results. Driving the business is a global team of 26,000 people. In addition, the company supports more than 190,000 U.K. jobs through the supply chain, dealer network, and wider economy.

Organizational Drivers and Delivery

The car industry is global in nature and very competitive by default. Customers often have a deep relationship with or attachment to their brands of choice. Nonetheless, they value customer service above all, particularly at the top end of the market, on which Jaguar Land Rover focuses. As such, it is imperative for all car manufacturers to provide both a high level of additional services and some differentiators that go beyond the car itself to retain existing customers and gain new ones. In other words, services are key and connected car features are beginning to be established within the market.

In this context, Jaguar Land Rover embarked on the journey toward the delivery of a comprehensive connected car program for the following reasons:

- The first driver was competitive positioning. Indeed, a number of Jaguar Land Rover's key premium competitors had started to offer these services in 2010.

- The second driver was in anticipation of upcoming legislative requirements in the European Union, Russia, and Brazil that will introduce requirements for new cars to be fitted with telematics units enabling a number of services, principally emergency call and stolen vehicle tracking. The company rightly anticipated that these mandatory fitments would impact margins. It had to act, and fast. As a result, it decided to leverage a number of features, some to be standard, and others to require customers to subscribe if they wished. The idea was to generate enough revenue to offset the fitting of the telematics unit. However, the anticipated legislation has since been delayed. This did not stop Jaguar Land Rover to go to market with its offering, especially since it can deliver an improved feature set to customers prior to the legislation being enacted.

- Another major driver during the scoping phase of the project was the huge internal benefit to Jaguar Land Rover as an OEM and its ecosystem to have a different kind of relationship with customers through enhanced feature sets.

In practical terms, the third driver – promising a new kind of relationship with customers – swayed the company into action. Legal requirements and competitive positioning were very important, but the massive opportunity to forge a new relationship with customers was what the company could not afford to miss.

The project started in late 2010/early 2011 in terms of concept definition. Once that phase was over and agreed, it moved forward in early 2012, working in silos (by types of solutions), and was then pulled together in May 2012 into what is now the connected car organization within Jaguar Land Rover. From then on (3Q12), the project moved into a more operational phase toward the production of added features to be offered to customers.

Within the car industry, the product life cycle of a vehicle can be quite long: approximately four years from inception to the car rolling off the production line. As for the connected car project, Jaguar Land Rover launched it in February 2014, managing to compress the life cycle to two and a half years.

Challenges and Solutions

Working With BearingPoint to Deliver Benefits

In the earliest part of the two-and-a-half-year project, the amount of resources available to deliver connected car solutions globally was very small. As a result, Jaguar Land Rover initially used some specialist resourcing such as very small, niche consultancies to help it determine the potential (specialist and generalist) providers of these solutions. The company then had to put together the requirements in the initial stages to bring in partners. A series of tenders followed. This was where BearingPoint's role started within the program: JLR had identified and contracted the main suppliers to fit within the connected car ecosystem, but it did not have a good governance structure, PMO, and overall program of work.

Once Jaguar Land Rover understood the level of complexity and the number of work streams required, it needed to scale up due to internal resource constraints. BearingPoint also helped put the work stream governance and structure in place. Its role then became bigger, but that was the start.

What Does BearingPoint Do Within the Solution Today? And Why the Company?

The relationship between BearingPoint and Jaguar Land Rover continues at present, and it is seen internally as a true partnership for this program, with long-term association in mind. As such, BearingPoint is active in most of the work streams, covering a breadth of business and technology aspects of the program. This includes program management, project management to launch in faraway markets, technical design authority for the end-to-end architecture, process and customer experience design, testing and integration, data privacy and product strategy, and road mapping. BearingPoint is also very active as a fulfillment partner in faraway markets, particularly resourcing in design authority and process as well as customer experience.

Naturally, Jaguar Land Rover has other suppliers such as mobile operators delivering end-to-end solutions for this project. It also buys in strategy research from other specialists. But in terms of the overall program of work, BearingPoint is the main partner.

The main reasons for choosing BearingPoint as a main strategic partner are twofold: first, the existing relationship with the company, and second, the perceived cultural fit. The fact is not everything was known from scratch, so JLR and Mike Bell in particular would never have managed to find, or let alone pick, a company that had delivered 10 connected car programs. As such, a significant level of flexibility and a good measure of trust were required. JLR perceived that many traditional partners would have been too inflexible around actually not knowing everything up front, as it would be the case in a more traditional enterprise IT project.

This project involved conceptualizing, managing, and delivering many programs of work simultaneously, but with a significant difference: there is no established or accepted methodology that details how to deliver connected cars. There is no roadmap: it is new territory.

As a result, Jaguar Land Rover needed a partner with breadth and depth of expertise, which also has the ability and willingness to accept new, unforeseen challenges and quickly provide actionable input in terms of new ideas as well as guidance on how to proceed. The partner must not hesitate to challenge or give a constructive opinion on the direction that needed to be taken. Therefore, trust and cultural fit became even more important.

Another significant factor was BearingPoint's commitment to retain the team that helped define and refine the concept through to delivery. This is vital in meeting Jaguar Land Rover's desire to launch a complex program within an aggressive timescale, something it has not done before.

Bell also mentioned that BearingPoint provides significant help "in the management of ideas and the innovation side of things." It seeks to consistently keep all those new ideas together and support JLR in driving through innovations. Jaguar Land Rover's customers were at the heart of our conversation, and as much they are at the center, they often – as Bell put it himself – "don't know what they want, so Jaguar Land Rover have to innovate. We need to not only track the competition, but also think ahead and differentiate ourselves. If and when we see the competition has done something, we are already 18 months behind."

Results

As the project has already gone live for a few months now, we asked Mike Bell whether its delivery and uptake were in line with Jaguar Land Rover's expectations.

His answer was an unequivocal yes. Of course, for a significant project, which has never been done before within the company, a number of complexity issues came out. He also acknowledged that they were delayed by six months, but this owed more to the end-to-end complexity of the connected car program than any misplaced expectations on either side.

Given the context of what JLR attempted (i.e., to launch a new, multifaceted program in multiple markets), the concerted view is that delivery and expectations were managed well.

By far the biggest challenge was a mix of technologies, end-to-end coverage, and the difference in terms of the ability to roam. Smart meters and devices that are static are much easier to work with than moving objects, especially in terms of speed. Optimizing the hardware to be able to work and roam in a way that delivered performance was also a major challenge. For instance, only 40% of A roads and motorways in the U.K. have high-speed coverage. As Bell put it, "We are used to metropolitan areas having great coverage, but from a vehicle perspective that's not the case."

Another major factor in the success of this project was the ability to set customer expectations in terms of what can and cannot be done. In this respect, BearingPoint delivered in line with expectations. Bell also mentioned that "it went above and beyond what was required when it came to the contribution and flexibility part of the project."

Finally, when it comes to key performance indicators (KPIs), they were both stringent. To put these features in the vehicles, they have to pass a number of independent and strict quality and field evaluations. In practical terms, this meant in excess of 30 cars driving in multiple countries with external testers evaluating the performance of the proposed features to ensure JLR met the required quality standards. Those standards were not just there to be passed, but most importantly to generate excellent customer feedback, especially given the major driver for this project: to create a new relationship between Jaguar Land Rover and its customers. Nothing short of excellent would do. There were a few teething problems around the vehicle integration side of the project, but given the level of complexity and time pressure, they were all brought together and managed successfully.

ESSENTIAL GUIDANCE

Mike Bell had the following advice for any user looking to embark on a similar project:

- **Resource requirements.** This is a significant issue, and despite best efforts, it remains underestimated within the connected car project. It is vital to have the right level of funding in place to resource something that is new to the company and its partners.

- **Be prepared for challenges.** The vital specification and delivery have their challenges, but nothing you cannot expect from any traditional, large, and complex IT program. The issues are largely around the organization's understanding and appreciation of the complexity of a connected car solution against a physically engineered solution that it is traditionally used to deal with.

- **Focus on the quality of experience: the big picture rather than the minutiae.** Of course, the connected car program has to make a positive contribution to the business, but the main driver is to deliver a quality solution as well as establish and sustain a new kind of relationship between the company and its clients. Although it is very important, revenue is only secondary to customer relationship.

In addition to the guidance and the dos and don'ts put forward by Mike Bell, IDC believes that seeking consulting and implementation advice is key. Clearly, technology is fundamental within an IoT or connected car solution.

What will determine the success of such project is whether enough time and resources have been spent up front to define the strategy and business relevance of the solution. Clearly, avoiding all technical challenges or hiccups is nearly impossible. It depends on luck as much as on competence. We advise potential buyers to think about what an IoT solution can do for their businesses and how it can solve a specific customer issue or address a specific requirement. In other words, think business, not just technology. Think enhanced customer relationships, not only profit targets.

Finally, it is imperative to have a strong project management and constant innovation. This is where BearingPoint's appointment as the overarching partner for JLR's connected car project seems to have been successful. This could not have been achieved without cultural fit and leap of faith. It all comes back to trust.

LEARN MORE

Related Research

- *ARM Plays Its Part in the Development of the IoT Market* (IDC #lcUK25231914, November 2014)

- *Internet of Things World Forum 2014 – Ecosystem Is Rapidly Developing* (IDC #lcUK25220114, October 2014)

- *Internet of Things Goes Beyond IT and Technology: How Services Are Vital for Success* (IDC #OT52W, October 2014)

- *The Internet of Things Across Western European Vertical Markets: New Insights on Opportunities and Use Cases* (IDC #M08W, August 2014)

- *The Internet of Things Adoption in Europe* (IDC #OT01W, July 2014)

- *Western Europe Machine-to-Machine Market 2013–2018 Forecast Analysis* (IDC #LM04W, April 2014)

- *Looking Behind the Curtain of Public Sector IoT Investments* (IDC #GIPP56W, February 2014)

- *The Internet of Things (IoT) in the Nordics* (IDC #NECS55W, January 2014)

- *Market Analysis Perspective: European Internet of Things 2014* (IDC #LM51W, January 2014)

- *EMEA Internet of Things 2014 Top 10 Predictions* (IDC #CT04V, December 2013)

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

IDC U.K.

Chiswick Tower
389 Chiswick High Road
London W4 4AE, United Kingdom
44.208.987.7100
Twitter: @IDC
idc-insights-community.com
www.idc.com