INTERNET OF THINGS TO POWER INTELLIGENT CARS

Intelligent cars, a work of fiction till not very long ago, are now a reality. From debating the need for intelligent cars, we have progressed to discussing regulations for driverless cars and the need for self-governance by auto manufacturers. Moving on from relatively simple software and hardware, auto manufacturers globally are now deploying technologies like Cloud, Internet of Things (IoT), and Artificial Intelligence (AI) to allow intelligent cars to make their own decisions, predict driver behavior, and use algorithms and analytics for overall improved and safer driving experiences. However, of these, it is IoT that is key to bringing intelligent cars alive.

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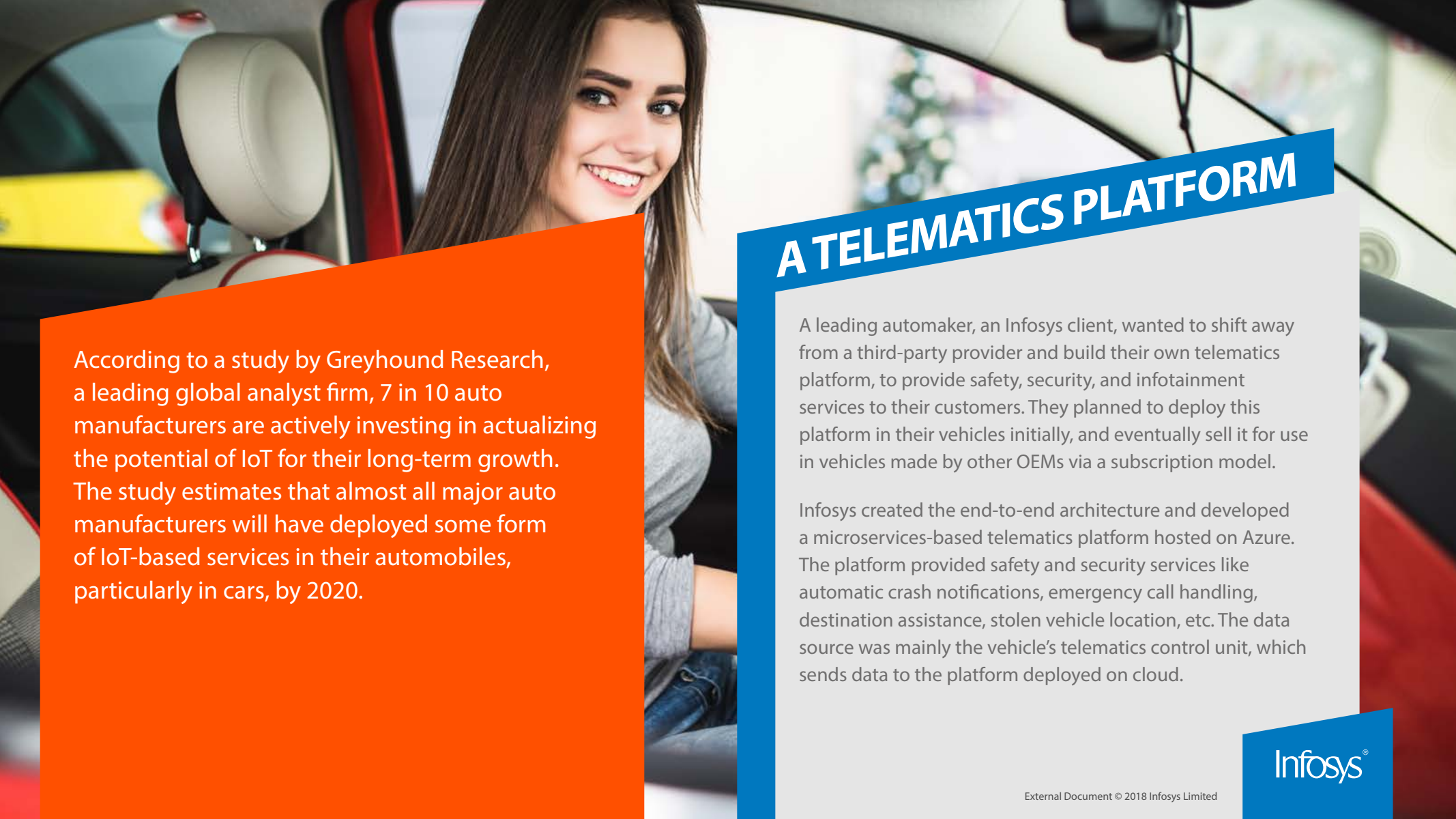

According to a study by Greyhound Research, a leading global analyst firm, 7 in 10 auto manufacturers are actively investing in actualizing the potential of IoT for their long-term growth. The study estimates that almost all major auto manufacturers will have deployed some form of IoT-based services in their automobiles, particularly in cars, by 2020.

A TELEMATICS PLATFORM

A leading automaker, an Infosys client, wanted to shift away from a third-party provider and build their own telematics platform, to provide safety, security, and infotainment services to their customers. They planned to deploy this platform in their vehicles initially, and eventually sell it for use in vehicles made by other OEMs via a subscription model.

Infosys created the end-to-end architecture and developed a microservices-based telematics platform hosted on Azure. The platform provided safety and security services like automatic crash notifications, emergency call handling, destination assistance, stolen vehicle location, etc. The data source was mainly the vehicle's telematics control unit, which sends data to the platform deployed on cloud.

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AUTOMATION AT WORK

The Infosys team followed Agile methodology for faster time-to-market and better control of functional specifications. One of the critical success factors was to build a working model as a proof of concept (POC) for the client to demonstrate to stakeholders and gather early feedback. To speed up development, the team implemented automation and DevOps, so code would get deployed to production after testing within minutes, thus automating CI/CD (continuous integration/continuous deployment).

The team also built chatbots to query the status of the builds and automatically deliver the working status of services to management. The automation helped save time and effort on manual code testing and querying status of services, and helped keep the infrastructure team lean.

Robust architecture and a well-designed platform enabled the client to accomplish a telematics solution for their automobiles. The new platform was also more cost effective for the client, as compared to a third party product. The platform is expected to deliver return on investment starting 2019, with the client looking to deploy this service in as many as 10 million vehicles in the next 5-6 years.

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INTERNET OF THINGS TO POWER INTELLIGENT CARS: THE FIVE TAKEAWAYS

1. **Leverage** IoT to deliver innovative value-add services to customers, through integration with geo-mapping technologies, chatbots, and cloud technologies.
2. **Deliver** better user experience through services such as in this case, crash notifications, emergency call handling, destination assistance, stolen vehicle location, etc.
3. **Follow** Agile methodology for faster time-to-market. Ensure early stakeholder involvement and functional clarity through POCs and demonstrations of the working prototype model.
4. **Automate** DevOps and leverage innovative techniques to speed up platform delivery. Automate CI/CD and monitoring of builds and services, to ensure lean and efficient infrastructure operations.
5. **Leverage** cloud to deliver an efficient anytime-anywhere service built into the vehicles.

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BIG LEARNING:

Innovative services, such as telematics, in this case, require fast time-to-market and robustness of delivery operations. A well devised and carefully executed strategy, backed by experience in the execution of similar programs, goes a long way in ensuring success. After all, innovation is a function of execution, with time-to-market being the ignition key.

WE DID THIS FOR THEM. WE CAN DO IT FOR YOU.

Learn more about integrating IoT into your systems by reaching out to us at askus@infosys.com

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