INTERNET OF THINGS CASE STUDY

TRANSFORMATIVE IoT
BEYOND CONNECTIVITY

Keeping Cars Safe and Secure

TELEFÓNICA'S KITE PLATFORM IS DELIVERING A WIDE RANGE OF IoT SERVICES TO GM VEHICLES IN MEXICO

Connected cars are becoming the norm in both developed and developing markets. Four out of five models in General Motors®' vehicle portfolio in Mexico, for example, now have Internet of Things (IoT) connectivity, enabling its customers to benefit from an array of services.

OnStar® Corporation, a subsidiary of General Motors® (GM), is using an IoT platform and LTE connectivity from Telefónica Movistar to help safeguard drivers in Mexico and enhance their in-vehicle experience. The telematics solution supports a wide range of services, such as subscription-based communications, turn-by-turn navigation (with optimised routes), a system that calls the emergency services automatically in the event of a crash, roadside assistance in the event of a breakdown, stolen vehicle assistance and remote diagnostic systems that can detect faults in real-time. The solution also offers WiFi hotspot capability and infotainment services.

Telefónica's Kite platform manages the cellular connectivity, providing a secure solution that enables GM customers' vehicles to communicate with OnStar's datacentres 24 hours a day, seven days a week[1]. The analytics capabilities in the Kite platform structure the information obtained from the connectivity data to help improve security and operational efficiency. Designed for easy integration with OnStar's existing processes and systems, the Kite platform provides the GM subsidiary with dashboards showing real-time security, operations and business information.

Telefónica says it has developed new security capabilities, including advanced authentication and encryption systems, SMS and voice incoming and outgoing numbering filters, and "massive disconnection systems" in case of security threats, specifically for OnStar®.

A BETTER PROPOSITION FOR CAR BUYERS

Telefónica's solution enhances the technological experience of GM's vehicles by making them more secure and appealing for end customers: connecting the vehicles improves driver safety and enables the delivery of assistance in any emergency, providing consumers with peace of mind. In the Mexican market, security is a key concern and a major factor in the vehicle purchasing decision, according to Telefónica. The mobile operator, which has now **connected around 125,000 vehicles to OnStar® in Mexico**, continues to develop new advanced security features.

OnStar® Mexico offers drivers a choice of five packages[2], ranging from a free monthly option, which simply transmits vehicle diagnostic and maintenance information, to broader options available with a monthly subscription. The highest priced package, which supports all the safety, security, location-finding and navigation options, supports integration with the driver's smartphone so they can monitor the status of their vehicle from anywhere. OnStar® collects the monthly subscriptions from its customers and then pays Telefónica for the related data traffic.

SECURITY
It has capabilities and tools that help To prevent, detect, and correct situations that compromise the security of devices or connectivity.

END-TO-END APPLICATION
Facilitates the integration with vertical and sectorial solutions, as well as with the leading IoT platforms in the market, through APIs and toolkits. Kite Platform also eases the integration with Public Clouds through the Cloud Ready solution.

MANAGED CONECTIVITY
It offers an extensive set of connectivity management features such as inventory and control of use and real-time expenses, alarms, reports...

NETWORK TECHNOLOGIES
Integrates 2G, 3G, 4G / LTE cellular network technologies, as well as networks designed for IoT, such as, LTE-M, NB-IoT, or sigfox, and even industrial sensor networks such as industry ready.

DEVICES
Customers have access to a bundle including communication hardware from leading device manufacturers through our Things Ready offering.
Kite Platform performs essential management of the communication devices, such as restarting them or downloading the firmware.

ANALITYCS
Extracts value from connectivity data to display it in visual panels that make it easier for customers to make decisions.

Overview of Kite Platform Functionality

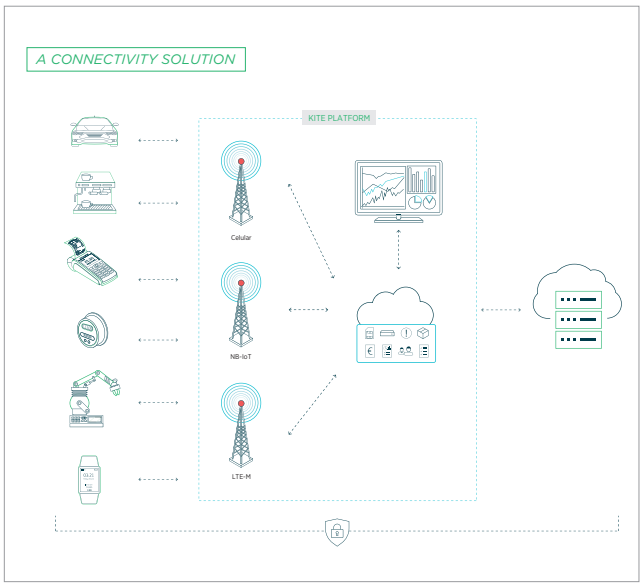
[1] Please visit onstar.com.mx for terms and conditions of the services
[2] Source: https://www.onstar.com.mx/planes-y-precios/comparar-planes/

Telefónica's solution also allows drivers and passengers to buy vouchers that enable up to 7 mobile devices to use a cellular-connected Wi-Fi hotspot integrated into GM vehicles: an allowance of up to 300 megabytes a week costs 69 Mexican pesos (around US$3). OnStar® also offers different data packages to its customers, for example an unlimited data package for a monthly payment of $649.00 Mexican pesos, among other options, for different customer needs.

This reflects the rising demand for in-vehicle connectivity.

"We currently serve an average of 1,800 daily calls... and more than 381 terabytes of data have been consumed since 2017," stated Mario Romero, General Director of OnStar® Mexico. "With this embedded technology we reinvent the mobile experience inside the vehicle and reaffirm our commitment to our customers, putting their safety as our priority," Mario Romero mentioned.

Many of these interactions are regular Internet sessions, in which customers are using the connectivity provided by Telefónica to check Facebook, WhatsApp and other popular online services.



Kite Platform provides secure connectivity for real-time in-vehicle telemetry and reliable access to internet services

About the GSMA

The GSMA represents the interests of mobile operators worldwide, uniting more than 750 operators and nearly 400 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and internet companies, as well as organisations in adjacent industry sectors. The GSMA also produces the industry-leading MWC events held annually in Barcelona, Los Angeles and Shanghai, as well as the Mobile 360 Series of regional conferences.

For more information, please visit the GSMA corporate website at www.gsma.com.

Follow the GSMA on Twitter: @GSMA.

About the GSMA Beyond Connectivity campaign

Delivering seamless IoT connectivity has been a crucial element in helping operators to launch new services such as low power wide area (LPWA) networks, using NB-IoT and LTE-M technologies and create added value and sustainable growth. Now leading IoT operators are building on this and their reputation as trusted industry partners by delivering value added services beyond connectivity.

These end-to-end solutions include services across big data, machine learning, analytics, edge computing and distributed ledger technologies. They are delivering substantial benefits to customers such as increased productivity, reduced costs and automated business processes as well as driving innovative new products and services, new lines of business and new business models.

Services beyond connectivity are transforming businesses and industries.

www.gsma.com/BeyondConnectivity

About Telefónica Tech

Telefónica is a company that is aware of the new challenges posed by today's society. This is why we offer the means to facilitate communication between people, providing them with the most secure and state of the art technology in order for them to live better, and for them to achieve whatever they resolve. An innovative and attentive spirit with an immense technological potential that multiplies the ability to choose of its more than 356 million clients. Telefónica operate in 14 countries and has a presence in 24, with and an average of 120,138 professionals.

IoT-Big Data is one of the recently integrated digital services offered by Telefónica, together with the cloud and cyber security services, in Telefónica Tech, a new unit that brings together these three businesses with a high growth potential and with which it seeks to accompany its customers in their digital transformation. At the close of 2019, Telefónica was managing 23.8 million IoT connections worldwide. Recently, for the sixth consecutive year it has been recognised as a global Leader in Gartner's Magic Quadrant Managed IoT Connectivity Services. In addition, Telefónica has also been recognised as Leader among Specialized Insights Service Providers for Big Data.

www.telefonica.com

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