

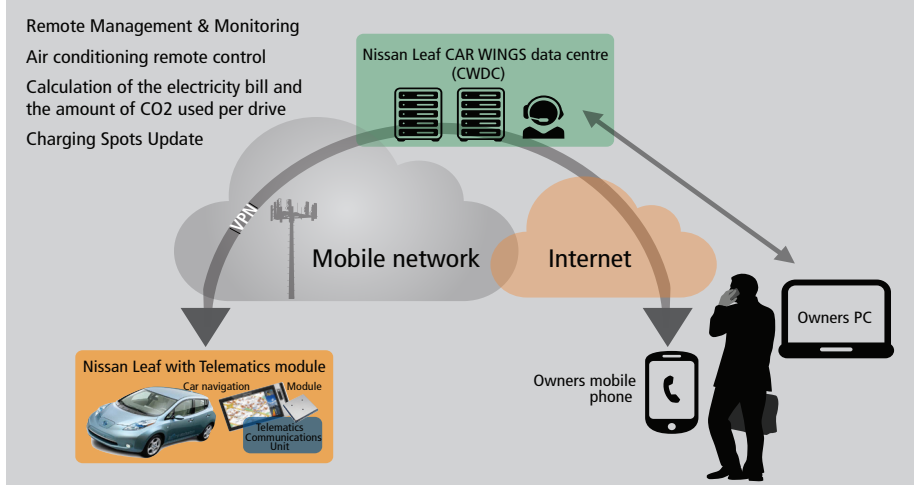
The Nissan Leaf

Description of solution

The 100% electric Nissan Leaf, built with a class-leading amount of recyclable materials, offers a new level of driving comfort, practicality and convenience for the eco-conscious driver. Every element of the Leaf has been designed to make its driving experience simple and safe.

The Nissan Leaf is embedded with innovative information and communication technologies (ICT), which provide telematics services that ensure that the driver has everything he needs to know for his journey. He has, close at hand, important electrical vehicle support services -- such as range-related information, remaining battery charge and the location of nearby charging stations -- as well as additional services for navigational information and eco-driving support. Importantly, the Nissan leaf's embedded system allows the driver to remotely interact with their vehicle, via a mobile network, so as to allow to control -- from his pc and mobile phone -- both the initiation and monitoring of the vehicle's charging status, as well as the remote programming of the climatic conditions of the vehicle cabin.

The Nissan's CWDC communicates via the onboard Telematics Communication Unit. The Car Driver is able to access an EV through CWDC anytime anywhere.



Benefits of the solution

The Nissan Leaf's embedded ICT allows car owners to be connected to the data and information they need, whenever needed, thereby experiencing greater convenience, comfort and security. The in-vehicle support services ensure that the driver can maximise the efficiency and security of their travels through constant monitoring of their power usage, the remaining vehicle range, navigation support for the optimum route, and guidance on the most eco-friendly driving method. Furthermore, the driver's ability to remotely interact with the vehicle, assures an effective and efficient charging process and user-defined climatic conditions for the initiation of their journeys. Not only does this innovative service deliver a comfortable in-car experience, it also contributes to the realisation of a low-carbon society in the future.

Timescales

The Nissan Leaf became available in Japan and North America at the end of 2010 and in Portugal, Ireland, UK and The Netherlands early in 2011. Together with RENAULT, Nissan plans to have manufactured five hundred thousand electrical vehicles by 2012.

Core technologies and standards

The Nissan Leaf services are provided through an embedded telematics module, which regularly connects to the Nissan Leaf CAR WINGS data centre through the mobile network, using a VPN. The vehicle owner is then able to remotely access the data centre using both his mobile phone and pc.



Quotes

Nissan Leaf is the number one choice of drivers for variety of reasons. Here are some of their comments:

"Uniqueness comes from the fact that the condition of the battery and the air conditioner can be checked and controlled remotely.

"Remote air conditioning functionality is extremely advantageous."

"Timer-based charging makes it convenient to charge the battery while the electricity bill is low at night."

"This navigation system with EV supportive functions allows EV users to go anywhere."

Business model

To ensure an affordable Electric Vehicle lifestyle, Nissan offers Japanese drivers their "Nissan Zero emission support program" (1500yen/m). This includes a variety of services, such as EV maintenance and emergency services. EV owners pay a monthly fee including a communication charge to Nissan, which is then passed to DOCOMO.

Services delivered through the ICT system, including communication charges, are offered free of charge for five years in Europe and three years in North America. Nissan offers these services as user fee-based after the initial trial period.

Clearly, a strong infrastructure is essential for the successful penetration of Electric Vehicle into the market. For this reason, Nissan has formed partnerships with more than 80 governments and cities around the world to foster the realisation of the infrastructures to support electrical vehicles, in particular charging facilities. Important complements to these aspects include the tightening of emission regulations and the promotion of environmental awareness to consumers.



Embedded
Mobile

For further information, visit:

Nissan Motor: www.nissan-global.com/EN/index.html

AT&T Mobility: www.att.com

NTT DOCOMO : www.nttdocomo.com

Telenor Connexion: www.telenorconnexion.com

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