



Fuel efficiency control in multibrand bus fleet

Telefónica - TIS Chile

In 2018, Telefónica Ingeniería de Seguridad (TIS) contacted Didcom to find out how the EPC solution “Engine Protocol Converter” works, as it needed a complete solution to standardize the information on the fleet of one of its most important clients, independently of the manufacturer’s brand, in order to standardize the obtaining of information in all its units.

This client was a leading passenger transport company in its region, which operated a fleet of more than 800 units of different makes and models, which cover the entire Chilean territory from north to south, transporting nearly 23 million persons every year to more than 150 destinations and have a staff of more than 3,000 drivers that manages 60,000 services per month, which represents a logistical challenge for the correct administration of their resources.

The distribution of the fleet was made up as follows:



Telefónica

About the client

Telefónica Ingeniería de Seguridad, also known as TIS, is a transnational company of the Telefónica Group, a pioneer in comprehensive technological security with a trajectory of more than 30 years providing solutions adapted to its clients, protecting people, infrastructures and information, in order to make the world a safer place.

In its commitment to contribute to the well-being of people, businesses and society, it offers within the sector of integral technological security the most appropriate services for each case, through innovative applications that make them a strong technological partner for its clients.

Within its wide range of solutions, TIS-Chile offers security services, which they call “Secure Fleet Management”, a solution that allows the client to monitor vehicle fleets in real time to obtain immediate responses and anticipate unwanted events.

TIS-Chile is an authorized representative and distributor of Geotab Inc, the world’s leading telematics company with its more than 2,000,000 connected devices.



The EPC solution is natively integrated with Geotab technology and is compatible with the aforementioned manufacturer brands, which benefited the interest of TIS - Chile, since Geotab technology had been previously provided by them in the fleet of their final client at the management and traceability level and being able to integrate the entire engine data and transport maintenance solution in a single platform, MyGeotab.

The project was focused on the analysis and interpretation of the measurement of fuel consumption and performance, in order to obtain a detailed overview of the efficiency or deficiency in the operation, whether due to driving or mechanical details, for which it was necessary get the following motor variables:

- + Kilometers - Odometer
- + Fuel - Consumption (Operation / Idle)
- + Hours - Engine Times (Operation / Idle)
- + Average Fuel Economy - Km / L

To confirm the feasibility of the EPC solution, TIS - Chile, acquired some demos and performed performance tests for a period of 4 months in the end customer's fleet, obtaining consistent, positive results and a solid integration.

Based on the results, the opportunity arises to create a strategic alliance between TIS - Chile and Didcom, with the firm purpose of solving a specific need of the end customer, maintaining an optimal relationship with the customer, taking care of every detail and offering satisfactory results.

Like any high-impact project, there are implementation and execution challenges, and this case was no exception.

*"A complete solution
was needed to
standardize fleet
information, regardless
of manufacturer brand."*

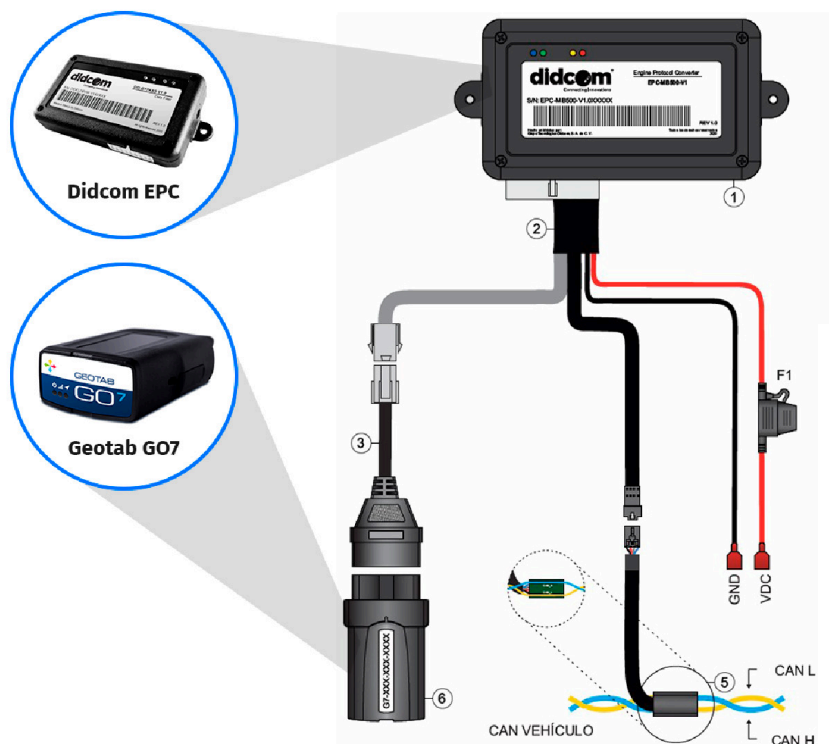
The solution

Both at Hardware and Software level, the existing technology had to be adapted and developed during the implementation process, which led to a deep technological involvement between Didcom and TIS - Chile for resolution.

One of the biggest challenges was to implement the reading of engine data for the Mercedes Benz brand fleet, which constitutes the largest percentage of the transport company's fleet. Although the Didcom EPC is compatible with this manufacturer, due to the variety of models that were available, standardization in matters of calibration and installation was necessary.

On the other hand, the technical teams of Didcom and TIS-Chile had to assess the entire fleet to conclude that the Didcom EPC solution was compatible with 95% of it, leaving out only the older model units that did not have the necessary technology. Once the fleet was selected, Didcom and TIS-Chile joined their technical teams to make hardware adjustments through the application of tests and homologation of the different models to achieve their implementation.

"Due to the variety of models available, standardization in calibration and installation on buses was necessary"



Regarding Software, it was necessary to display the information in certain specific formats that the final client required according to its operating model, and the following points should be considered:



Integration with third party systems:

The final client had TIS - Chile integrations to obtain information about its drivers, this information was on a separate platform, which made it difficult to analyze it related to other unit performance reports.



Data volume processing:

With a fleet of more than 800 units, data processing to obtain the information was a problem factor, as the volume of engine data recording can exceed one million daily records of the total fleet, which complicated its processing from the native configuration of MyGeotab platform. Didcom and TIS-Chile had to solve a process by which the final client could interact and work locally.



Charts and Results:

Lastly, Didcom and TIS-Chile had to develop new formats and graphics for the issuance of the reports required by the final client, which included detailed information by unit and by driver that they obtained through the developments prepared by TIS-Chile, integrated with the data received by Didcom EPC, which required the design of statistical graphics visible in a single report.

Given this situation, the development of Software by Didcom was chosen, under the supervision and validation of TIS - Chile, with the firm purpose of offering the end customer the result as required for the benefit of its operation.

This led to the development of a software integration (Add In) that would be integrated within the MyGeotab platform, which would allow consulting the information on fuel efficiency and telematics variables in a single view, as well as a graphic section that shows the information segmented by unit, driver or date.



Results that transcend

From this technological synergy between Didcom and TIS - Chile, using and integrating Geotab technology, the end customer has managed to have full control of their fleet and operation.

The integration of Didcom EPC devices, as well as the development and integration of the Add In resulted in a more complete platform in which:

- + Homologation of fuel consumption and performance results.
- + Reading of motor parameters and fault codes
- + Viewing results on a single platform
- + Information processing adapted to the operation

As of today, more than 1,100 Didcom EPC devices have been marketed for TIS - Chile, thus consolidating its participation in the passenger transport management market, providing innovative solutions and becoming the technological partner of its clients.

Didcom makes public its gratitude to Telefónica Ingeniería de Seguridad - Chile for the opportunity to support its operation, and above all for the trust that throughout this time they continue to show us.

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