didcom
Success stories

Development and technological integration for passenger identification
METRICA MOVIL

In the middle of 2019 Didcom commercial area was contacted by Métrica Móvil, requesting general information on the operation of the PID solution - Didcom Passenger Identification, which is developed and oriented for the monitoring and control of industrial and student passage, registering the passenger every time that ascends or descends from the vehicular unit through an RFID identification card, linking this data with GPS positioning.

Métrica Móvil had a request from one of its clients, the main objective was clear, to resolve the issue of capacity, and to control the personnel who use the transport service, as well as having information on schedules, ascends, descents and locations of use of different users.

The PID solution is natively integrated with Geotab technology, which benefited Metrica Móvil's interest, since its client's fleet already had said technology provided by them and thus could integrate the entire logistics solution of the Transport with the capacity on a single platform MyGeotab.

MÉTRICA MÓVIL
TRANSFORMAMOS TECNOLOGÍA EN PRODUCTIVIDAD

About the client
Métrica Móvil is a Mexican company with a national presence, focused on the integration of 3 data sources: Vehicles, Hardware and Systems. Weaving together Engineering and Telemetry solutions to extract information and analyze the behavior of the fleet operation through an open platform, completely intuitive.

Métrica Móvil, S.A. de C.V, offers its customers telematic technology solutions which makes it a benchmark in technological innovation, serving as the representative in Mexico of the Canadian company Geotab Inc.

Information on time of ascent and descent of each passenger.

Travel log reports by passenger (Unit, Date, Location, Route).

Fee collection control.

Safety on each trip.

To confirm the feasibility of the PID solution, Métrica Móvil purchased some Demos and installed them in the end customer units. A few weeks later, Métrica Móvil informed Didcom that the tests were successful, both the hardware and the software had a solid integration that consistently presented the expected results.

However, it was only a few weeks after the real challenge arose, implementing the PID solution did not seem feasible because at the conclusion of the tests for the client of Métrica Móvil, the latter reported that it already had RFID cards which users used to enter the plant to work as access control and assistance, and that it was not willing to provide new RFID cards to users to use transportation, required that everything be unified with its current technology.

Additionally, the final customer provided the service to different companies, in which there were different RFID technologies, so it was not only being able to integrate one type of reader, but several in order to be able to read all the different types of existing cards.

Although under normal conditions this would have meant the loss of a business opportunity, Didcom saw it as an opportunity to expand the solution and be able to keep the business that this opportunity represented.

A solution was needed to improve passenger control and capacity and to collect relevant information on transport use habits.

Before the identification of the challenges, there was a "Main Objective", to take advantage of the current PID solution at the engineering level and to make minimal changes in physical design and connectivity, which would be made only if necessary. This with the firm purpose of being able to advance in a fast and firm way on already functional bases, which would allow concentrating on the development of Firmware and compatibility with the current solution.

There were several challenges for Didcom during this integration, with different degrees of complexity, highlighting the following:

+ Identify the different types of readers that the client had (Make and Model), in order to analyze the technical specifications of each of these, and be able to determine everything necessary for their integration.
+ Obtain the different types of RFID readers and cards to perform functional tests.
+ Select reliable supplier of these components
+ Fund engineering research and development for the entire integration at all levels.
+ Streamline delivery times in short terms to meet customer needs.

Likewise, the agility and experience of Didcom's technological area allowed a rapid diagnosis of the problem and the conceptualization of the development that would allow solving the client's need, considering the limitations in cost and time they had.

The real challenge was to implement a unified solution, capable of integrating technologies and reading different types of RFID cards

The solution

Having solved each of the challenges brought several important conclusions that would set the course for this project:

+ There is no single type of reader on the market capable of reading all the different protocols and frequencies of RFID technologies.
+ It was possible to standardize and integrate 4 new types of readers for the PID solution, with which the needs of the end customer could be covered, and which should be required according to the project.

During the engineering development, a significant study was carried out to learn in detail the operation of the variants in RFID technologies, from frequencies, communication protocols, to transmission power, which allowed standardizing the integration process at a logical level.

Undoubtedly, the core part of the project was to take full advantage of all the technological knowledge of the development of the original PID, which allowed Didcom to focus on the aforementioned variants and thus be able to advance effectively.

Finally, after several weeks of work, Didcom offered Métrica Móvil an integration of hardware and firmware according to the client's needs, making it possible to carry out the necessary proofs of concept again.

Additionally, Metrica Móvil designed, integrated and carried out a Software development which is capable of carrying capacity control as the client requires, and which is unified within the MyGeotab platform as an Add In.

Results that transcend
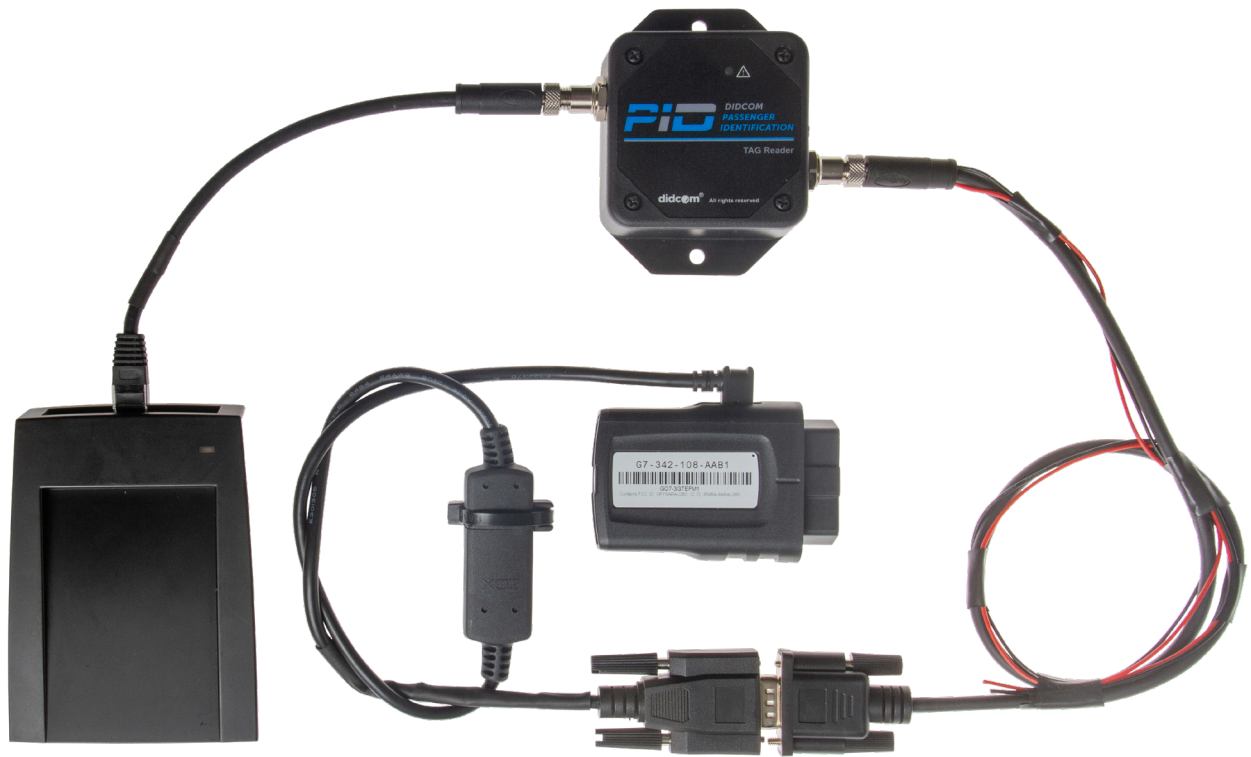
Métrica Móvil adopted Didcom's PID solution in its different variants, to provide a solution to the final customer problem, which were installed in personnel transport, depending on the company that provides the service, thus allowing all users who ascends or descends off the bus to identify using their own RFID cards.

In order to give the user insight into the use of the personnel capacity system, Métrica Móvil developed an Add In within My-Geotab, which has the following main functions:

Knowledge and experience were key to speeding up delivery times and development costs.
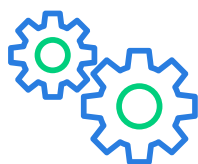
Settings module

Use of routes in real time

Historical reports of route utilization

Nowadays, the final client controls the capacity in an organized way, with a technological, functional and practical vision, where he can punctually monitor the transport unit and the users who use the service.

The synergy between Métrica Móvil and Didcom made it possible to have a comprehensive solution to the end customer, offering telemetry service + capacity management service on the same platform.

Métrica Móvil consolidates its participation in the personal and student transport management market by having its own solution, allowing it the possibility of making changes in the functionality of the Add In according to the requirements of the end user, emphasizing its motto of "Transform technology into productivity".

Thanks to the willingness of Métrica Móvil and Didcom to work together according to the strengths of each one of them, today they add 795 PIDs installed in different transport companies throughout the country.

Due to the wide variety of cards that Metrica Móvil can read today through Didcom's PID solution, as well as the Add In that is available today, the capacity solution system is very robust and can be offered to a wide variety of customers.

In the words of Métrica Móvil, it stands out: **"A key factor to maintain all our clients was the response time that was given to us by Didcom, the times and prices of the solutions offered were always accessible to our clients"**.

Didcom announces its gratitude to Métrica Móvil for the trust it has given, its professionalism, vision, dedication and commitment were essential to achieve this success story.

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About didcom
Didcom is a hub of engineering and technological development, offering to the international market complete solutions of Hardware, Software and Firmware, for the transportation industry, backed with personalized support and more than 10 years of experience.

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