didcom®

Success stories

Digital Evolution in Fleet Management

Globexplore

Globexplore has the firm conviction that maintaining support systems and efficient logistics is crucial for any successful drilling campaign, which is why they have created a customized software system called Globexplore Management System, with which they seek to reduce the risk of human error through through automation, achieving high levels of efficiency throughout its operation, customer service, precision, safety and cost reduction.

With a vehicle fleet of more than 170 units, and the need to efficiently manage the operation, logistics and maintenance of all units, this is how this collaboration opportunity for Didcom begins, which is created through the prospecting of our commercial department.

About the client

Globexplore is a customer-oriented, technology-driven mineral exploration drilling contractor dedicated to world-class drilling methods and techniques that only years of experience can achieve.

They are proudly backed and have the most efficient infrastructure of any drilling contractor in Mexico. Located in downtown Hermosillo, Sonora, Mexico, its central office is high-tech, operating five well-supplied satellite facilities located in each of Mexico's main mining regions.

Globexplore is a leader in technology and innovation in its sector, 80% of its fleet is less than 5 years old and each rig is fully updated annually, it has the most modern drilling fleet available in its industry.

Every day they strive to be the industry leader by providing the highest rate of performance, professionalism, safety and environmental responsibility.

Globexplore has a solid reputation and a high recommendation rate from their clients, without a doubt their strongest asset, every client they have worked for would hire them again and recommend their service! They have a simple guarantee, your customers will not be disappointed with your service.

“It was required to have greater control over the fleet and give way to the digital age”

Globexplore required greater control over its fleet, with the main purpose of optimizing the operational and economic resources that the vehicle units required for their operation, additionally it was important to take a step towards digital evolution in the fleet management processes.

Efficient fleet management for the mining services sector represents a great challenge due to certain factors, such as:

+ The long journeys that the units carry out from the operational bases to the projects where the services are presented.
+ The difficulty of effectively supervising the units in the remote locations where they provide their services.
+ The high costs of performing corrective maintenance hundreds of kilometers from a service workshop.
+ The lack of information on driving habits and their relationship to mechanical damage and accidents.

This panorama brought with it a series of complex elements to manage, and it was necessary to solve them in order to have a profitable fleet in operation, free of incidents and functional to offer the best service to the end customer.

Didcom offered a proof of concept, which consisted of equipping some units of the vehicle fleet with our advanced Telematics solution for a specified period of time, and periodic monitoring to review progress and results of the demo stage.

At the end of this stage, the results obtained were analyzed, which were considered successful, it was possible to demonstrate the ability to configure a solution according to the criteria and environment of Globexplore, which represented an opportunity to resolve the uncertainty issues that were had. present and that management sought to improve.

The objective and purpose of the project was clear, to have the detailed control of the operation within reach at any time, which allowed to identify operational failures and, above all, opportunities to improve and reduce unnecessary costs.

The Solution

The preliminary stage at the beginning of the project was analysis, it was important to know in detail what was the real state of the vehicle operation of the entire fleet in order to determine the business rules that should be implemented as a priority.

Reactive to proactive fleet
The main vision of the project was to change from being a reactive fleet to a proactive one, so it was recommended by Didcom to section its implementation into 4 stages:

Analysis
Conduct an in-depth analysis of high-risk indicators, and prioritize objectives.

Decisions
Share analysis results with management, and make decisions to implement strategy.

Strategy
Implement indicators for measuring progress of the objectives set.

Follow-up
Give punctual follow-up to the indicators and correct them on the fly if necessary.

Additionally, the work areas were registered, with which they began to obtain a logistics of the location of the vehicles, as well as their travel logs between said areas.

As a result of this stage, three specific themes stood out that were repeated as a pattern of operational behavior and that it was necessary to start measuring in order to plan and generate an opportunity for improvement that would favorably impact the management and profitability of the fleet.

"The objective of the project was clear, to have the detailed control of the operation within reach at any time, to detect operational failures and opportunities for improvement"

1

Idle Time

With the creation of the business rule implemented as “Excess Idle Time”, a measurement was obtained that consisted of counting the hours that the fleet generated with the engine running but without movement, this rule was configured to measure punctually in “Work Zones”.

As a result of this rule, it was determined by Globexplore that the idle time was excessive, and that it was not necessary for the units to remain under idle for that long to perform their operational work. For this reason, they implemented a driver training program to provide feedback on this action, as well as a timely follow-up periodically to analyze the results.

Through continuous monitoring Globexplore has managed to reduce the idling time of its fleet by up to 63%, which represents an extremely considerable economic saving in fuel consumption, and spare parts in maintenance. Additionally, as a highly responsible company with the environment, they support the reduction of polluting CO_2 emissions.

Idle vehicles put extra load and engine hours on your fleet when they could simply shut down. This can increase the number of oil changes and the amount of maintenance required on your vehicles, increasing fleet costs without providing a return.

63% reduction at idle time

+ **Operating time**
+ **Idle time**
+ **Unplanned stops**
+ **Scheduled visits**
+ **Visits made**
+ **Percentage effectiveness**
+ **Percentage non-compliance**

2

Speed limits

The rule called “Speeding” was configured which was based on the limits established in Globexplore’s driving policy. This rule consisted of identifying, counting and georeferencing the events of each unit that committed said offense.

During the first month, a record much higher than expected was obtained, which is why an internal campaign was started to raise awareness among the driver about the risks posed by this type of driving. Additionally, an audible alert was configured in the vehicle’s “cabin” to provide feedback to the driver every time he was near the permitted speed limit or when it had been exceeded.

Under this business rule, 3 fundamental points were sought to be able to correct this problem and to be able to turn it into an opportunity for operational and safety improvement.

+ **Driver identifier**
Identify the driver when starting his journey and assign everything that happens during it.

+ **Identification of driving habits**
Quantify the exceptions made during your trip to define your driving and determine if you require training.

+ **Instant Driver Feedback**
Instantly inform the driver of the exceptions you are committing to correct your driving.

As a result of this improvement implementation, a reduction of up to 76% in registered speeding events has been achieved, which represents a great improvement in different aspects, the main one being safety, since by increasing the level of safety, accidents are reduced, drivers are protected, lives are saved and waste is avoided.

Additionally, as an immediate benefit in this reduction, excessive wear of parts and components due to engine abuse is reduced and fuel efficiency improves by increasing the fuel efficiency of the fleet.

76% reduction in speeding events

+ **Speed excesses**
+ **Excess rpm**
+ **Brusca acceleration events**
+ **Bruscos slowed events**
+ **Idle times**

3

Maintenance

At the beginning of the project, there was a non-compliance rate of preventive maintenance services performed, this was mainly caused by the location of the units, which were operating in different work areas, a situation that generated a significant number of corrective and maintenance maintenance. loss of operational time, which affected the operation, customer service and profitability of the business.

It was necessary to reverse this situation, so maintenance reminders were configured, prior to their expiration date, or according to the mileage of the unit, they directly notified those responsible for the units for the corresponding management.

It also began to analyze the information on engine data and fault codes, which is obtained in real time and helps considerably to obtain statistical information and trends in the behavior of the critical variables of the operation.

Globexplore's maintenance management has managed to control this situation, considerably reducing the number of defaults on maintenance dates, which has represented significant financial savings, as well as an increase in productivity in the vehicle fleet.

Success for any maintenance management is turning corrective maintenance into preventive. For this reason, information and its interpretation are very important, the true value is when timely decisions are made and that represent savings for the business.

Reduction of non-compliance in maintenance dates

+ **Scheduled programming**
+ **Preventive programming**
+ **Motor data**
+ **Fault codes**
+ **Out-of-range operation**

Results that transcend

Extracting information from the data and converting it into measurable income or cost reduction is a sample of the intelligent decisions that can be made supported by systems that prevent service failures and implement improvements in the operation.

Globexplore, through the implementation of Didcom's telematics technology, but above all because of its involvement in the project, has achieved a series of truly surprising changes in fleet management, which have brought benefits of great impact to its organization. They have been able to identify and quantify savings opportunities across the entire fleet and implement the right management initiatives to achieve them, but most of all they have truly evaluated the impact of the telematics benefit within the entire organization rather than a single standalone project.

Didcom makes public its gratitude to Globexplore for the opportunity to support its operation, and above all for the trust that they continue to show us throughout this time.

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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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