

Vias de Nus Concession

Traffic and Safety Management

The roads under the Vias del Nus Concession have a total estimated length of 157.4 kilometers in the State of Antioquia and have enabled the region to improve mobility and road safety, save time and costs for users, improve the operability of cargo transportation, and make a significant contribution to tourism and agro-industrial development in the region.

As part of the project, the La Queibra Tunnels, 4.3 km long in both directions, are the first in Colombia and Latin America to be equipped with Kapsch's advanced ITS system. With modular architecture and simple configuration, it is the ideal software for optimal traffic management within any road project, which is why it is the ITS solution of choice in more than 300 projects around the world, becoming the best tool to monitor and control traffic, safety, assets and facility management processes.

Critical points such as tunnels and bridges often turn out to be the weakest link in the traffic chain. And that's exactly where Kapsch TrafficCom comes in.

Our all-in-one solutions were designed to identify problematic situations before they become a safety hazard. Our state-of-the-art systems for traffic monitoring, road user protection and emergency measures are safe, efficient and sustainable.



Project Scope:

- Integrated ITS software suite for traffic and safety management
- All roadside equipment
- A state-of-the-art Control Center

The intelligent transportation systems used by the concession, developed and implemented by Kapsch, provide safety and responsiveness for traffic. Likewise, the region has benefited by generating new opportunities and benefits for the farmers of the surrounding municipalities, the tourism sector, agribusiness and the transportation sector, which have seen increases in their competitiveness.

The Challenges:

- Implementing an ITS solution for traffic and safety management that is efficient for both the open air highway and the long tunnel with two tubes, one in each direction. Delivering on time even after working during the pandemic, which affected personnel and supply coordination

The Solution:

An ITS software suite that integrates 3 systems in one that are usually separated:

- A SCADA system for control electronic, electrical and electromechanical elements
- An Incident Management System
- And an Advanced Traffic Management System for Intelligent Transport System management

The highways and tunnels of the Vías del Nus Concession registered the transit of more than 300,000 in the first three months of operation, and it is estimated that 2400 vehicles used to circulate through the La Quebra tunnels for the same period before the project. Now the number has risen to 4000, which translates into a 60% increase that positively impacts the region's economy.

"Since the start, the operation has been impeccable. More than 300,000 vehicles have passed through and there have been no incidents, with the exception of a couple of stranded vehicles that have been attended to immediately, so we are very satisfied because the operation has been perfect", says Ricardo López Lombana, Manager of Vinus.

The Added Value

- improve mobility and road safety
- save time and costs for users
- improve the operability of cargo transportation
- make a significant contribution to the growth and strengthening of tourism and agro-industrial development