

CASE STUDY

Pasto Municipality, Colombia

The customer



San Juan de Pasto – more commonly known as Pasto – is the capital of the department of Nariño, located in southern Colombia.

With around 500,000 inhabitants, Pasto is one of the oldest cities of Colombia, and is located on the Andes cordillera, at the foot of the Galeras volcano.

The challenge

Pasto is the first city to benefit from a nationwide project to develop integrated public transportation systems for twelve of Colombia's large cities.

The project focuses on real-time management of bus operation; verification of routes, frequencies and schedules; definition of bus stops; and, above all, continuous communication between drivers and control centre operators.

AVANTE SETP, the organisation tasked with planning and implementing the new transportation system, required the supply, installation and commissioning of a fleet control and management system for Pasto municipality.



The solution

Sepura – together with the Korean integrator LG CNS – supplied, installed and commissioned a complete TETRA system for the public transport network.

The solution – comprising Nebula TETRA infrastructure and over 550 mobile and portable radios – forms part of a cutting-edge, network-wide fleet control and management system provided by LG, designed to optimise service and reduce travelling and waiting times.

In addition to managing communication between all staff on the network, the solution provides real-time information which, in conjunction with the Intelligent Transportation System, allows the redeployment of resources to minimise delays, and keeps the Passenger Information System up-to-date.

Location, alarms and events for each vehicle are sent to the control centre via the proprietary Synchronous Data Manager (SDM) – an application that uses TETRA SDS (Short Data Service) messages allowing minimal refresh times and helping to avoid network saturation.

This application is responsible for polling the terminals to obtain the latest information in near-real time, and can obtain the position of every bus in AVANTE's fleet in seconds.

The solution has resulted in increased efficiency across the public transport network, contributed to the reduction of congestion throughout the city and placed Pasto at the cutting edge of transport communication technology in Colombia.

Benefits

- Real-time operational control
- Continuous communications between drivers and control centre
- A private communication system, fully controlled and maintained by the end user
- Simultaneous voice, data and location services over a single network
- Wide coverage area
- Integration with third-party systems