SUCCESS STORY

BOGOTÁ TAKES CITY MOBILITY MANAGEMENT TO THE NEXT LEVEL++

COUNTRY:

Colombia

SECTOR:

Cities & Goverments

PROJECT TYPE:

City Mobility Management

MAIN PRODUCT:

Smart Cities powered by OneMind

OneMind
THE INTELLIGENT IOT SOLUTION BUILDER

Challenge

With 7.8 million inhabitants and 1.2 million vehicles, the Bogotá metropolitan area had been suffering from significant traffic congestion problems since the 1990s. The chaos reigning in mobility even led the Colombian capital's authorities to set up an alternate-day vehicle traffic system according to registration number. Unfortunately, this type of restrictive measure was ineffective in solving the growing congestion problem. In order to accommodate economic growth within the area - and the additional traffic that came with it - a more effective approach to mobility management was required. In general, the Colombian capital had one operational issue many cities suffer from: the tools Bogotá used to manage its road infrastructure were highly fragmented and the teams which coordinated actions functioned separately.

Solution

The project implemented by Worldsensing was divided into two phases. The first consisted of a detailed analysis to understand the precise needs, identify existing systems and gaps, propose additional systems, define the solution's preliminary architecture and plan the functions and responsibilities of all city agents involved. In a second phase, an initial version of the solution, to be tested and refined, was implemented, users were trained and the definitive version of the system was started up.

One of the factors detected in the preliminary analysis was that the management tools the city used to manage its operations were highly fragmented. For this reason, Worldsensing used its intelligent IoT solution builder OneMind to integrate various mobility-related tools and applications that already existed in the metropolitan area. Worldsensing then built a tailored mobility application powered by OneMind which provided the Bogotá authorities with a comprehensive real-time mobility management system.

With the goal to improve mobility, security and the service of first responders, the solution was tested and implemented in 2015. The technology enables Bogotá to connect systems, agents and infrastructures and to unify multiple systems in one central control center such as traffic flow management, vehicle counting, agent tracking, traffic cameras and incidents.

Real-time decision-making support

The metropolitan area of Bogotá (Colombia) has gone from being one of the most congested in the world to using a pioneering mobility solution, which integrates a number of data sources and puts Bogotá at the heart of the Smart City revolution.

ADVANTAGES

- Manage traffic operations in real time
- Improve mobility, security and service of first responders
- Integrate multiple city subsystems and data sources
- Foster cross-departmental collaboration
- Enhance operational efficiency
- Increase Citizen Engagement
- Reduce congestion and pollution

Benefits

Today, Bogotá's traffic control center uses insights to improve decision-making processes in real time. Because The OneMind core technology manages and stores all data from the different sources connected to it, city operators can analyze patterns and improve planning processes by correlating data and creating specific dashboards in the mobility application. And there is more: by means of a mobile App and Social Media the control center obtains real-time information from citizens allowing the city to react faster.

In partnership with Worldsensing, Bogotá was able to develop one of the most complete and advanced mobility management solutions in the world. It integrates data from traffic lights, bicycle lanes, bus stops, traffic cameras and other tools to provide a comprehensive overview of urban mobility which enables effective real-time management.

Greater efficiency in the management of city mobility provides citizens with a number of benefits. The emergency response time has been improved, the de-congestion of the traffic reduces the time spent travelling and also helps to decrease air pollution. Notably, the solution has helped to reduce costs by integrating the functions that used to be carried out by different control centres operating separately. With more than 30 agents using the City Operational Intelligence Solution on a daily basis, Bogotá is now one of the leading Smart Cities in mobility management worldwide.

City Control Center in Bogotá

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CONNECTED OPERATIONAL
INTELLIGENCE

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