

# Imagining Tomorrow's Urban Transport

Mobility Analytics Platform: Visualizing, Analyzing, Simulating



Mobility Analytics Platform (MAP) is a set of urban travel data analysis and modelling tools designed to improve overall transport services.

It is based on processing and cross-referencing mountains of data obtained via transport operators' management systems (ticketing, fleet management, car parks, etc.).

## Understanding Today to Imagine the Urban Mobility of Tomorrow

## A Step Towards Smart Cities

At what stops are buses always late? Between which city districts do users travel the most? How could car park prices be modulated to guarantee some spaces are always available?

MAP provides answers to these questions using data taken from the operators' systems.

## **Understanding of The Sector and Client-Based Research**

The representations, analyses and simulations in the Mobility Analytics Platform are based on advanced graphic, statistical and probabilistic technologies. They were developed at Conduent' research centres in coordination with a representative group of transport operators.

## **Operators and Authorities**

MAP helps urban transport operators to gain a good understanding of users' habits and improve their service. It also assists transport authorities with regard to their urban transportation policies.

MAP therefore ties in with the logic of smart cities and long-term urban infrastructure planning. It contributes to the smart organization of transport alongside energy and water, administrative services, buildings, etc.

## Data mining

Installed on a dedicated server, MAP exploits the wealth of data obtained through transport and travel management systems (data mining).

It generates historical representations of flows (maps or graphs), analyzes user profiles and behaviour models, and can simulate fare, route and frequency changes with a view to improving the service.

#### **Sectorial Data**

The features of MAP adapt to the type of data to be processed: ticketing, fleet management, car parks, toll ways, etc., providing relevant representations, analyses and simulations for these different segments.

MAP can integrate external datasuch as maps, weather, social networks, demographics, etc.





## **Giving Meaning to Data**

As a benchmark player in ticketing, fleet and car park management, Conduent draws on its in-depth knowledge of these sectors' "technical" data to provide urban transport managers with the most relevant analytical standpoints and interpretations.

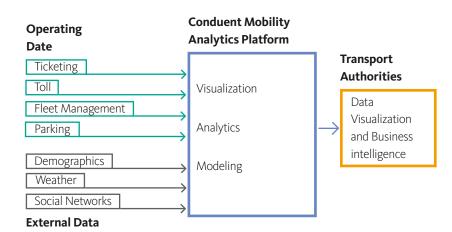
## Configurable

MAP is highly configurable. Depending on their needs, users choose the most suitable type of representation (maps, curves, bar charts, pie charts), with either static views (accumulated over a given period) or dynamic views (replaying a period). They can also set threshold levels and graph scales and choose the data to be represented (user / vehicle categories).

## Three Steps to Improve Urban Mobility

With Mobility Analytics Platform, transport operators can:

- obtain a dynamic representation of flows on their networks and infrastructure;
- analyze user habits and determine typical profiles based on different criteria;
- simulate the impact of modifications such as new line routes or changes in fare policies.



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