

# Mastria

## Multimodal traffic orchestrator

Mastria is Alstom's innovative multimodal system, which aims to streamline urban transport management by improving capacity and fluidity.

Mastria is designed to meet the current and future needs of “smart cities” and can coordinate all types of public transport, from rail to road, while enabling new mobility services.

The system also uses predictive analysis to optimise transport mode coordination.

### HIGHLIGHTS

#### For operators

- Optimal train usage and energy saving
- Efficient operation during large scale event
- Better responsiveness to incidents and crisis situation
- Algorithms to predict and anticipate impact on traffic

#### For passengers

- Reduced trip time & improved on-time performance
- Reduced traffic congestion with coordinated city transport modes
- Alternative mobility solutions rapidly offered in case of incident

### GENERAL DESCRIPTION

Mastria was designed to answer transport authorities' need to operate several transport modes in a centralised and coordinated manner.

Mastria works as a non-intrusive overlay to the existing transport systems of a city including traffic supervision, SCADA, ticketing, security but also police & fire department, bus and taxis.

It aims at providing higher automation in order to control, anticipate, take quicker and better decisions, and inform correctly passengers.

### CUSTOMER BENEFITS

#### Coordinating all public transport modes from rail to road

Traffic supervision, coordination and optimisation of all public transport modes : metro, train, tramway, suburban, bus.

- Optimisation of all public transportation asset
- Coordination and collaboration between the different agents from each transport modes
- Traffic information publication to third party such as taxi

#### Predicting with data analytics

Advanced data analytics and algorithms to predict and anticipate impact on traffic and optimise trip plan.

- Identification of circumstances generating public transport incident: weather, sports events, cultural events
- Timetables optimisation and traffic adaptation
- Automatic warnings generation
- Coordination of the stakeholders from the different transport modes involved

#### Optimizing multimodal traffic & orchestrating operation procedure

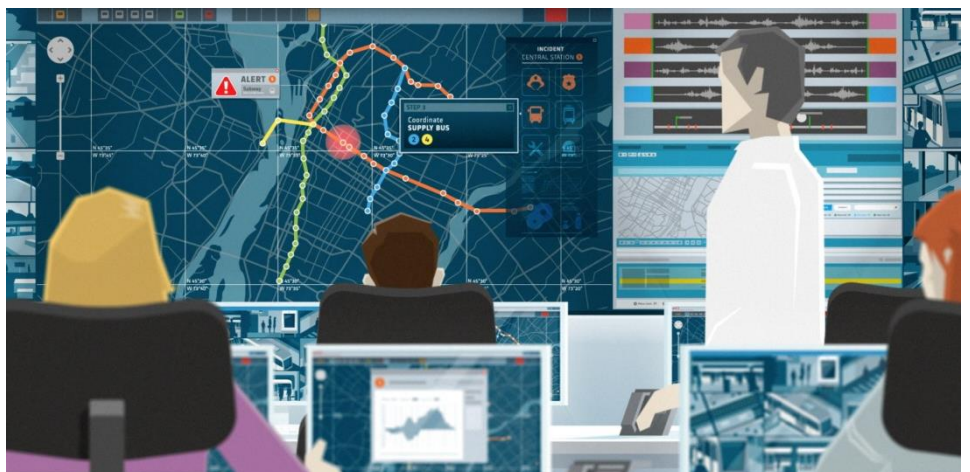
Incident management over the whole public transport network.

- Trip plan modification, capacity adjustment, energy optimisation
- Coordination of operation procedures execution between the different public transport modes.
- Coordination of the stakeholders including fire department, security, maintenance through mobile devices
- Verification and traceability of each steps of the procedures execution

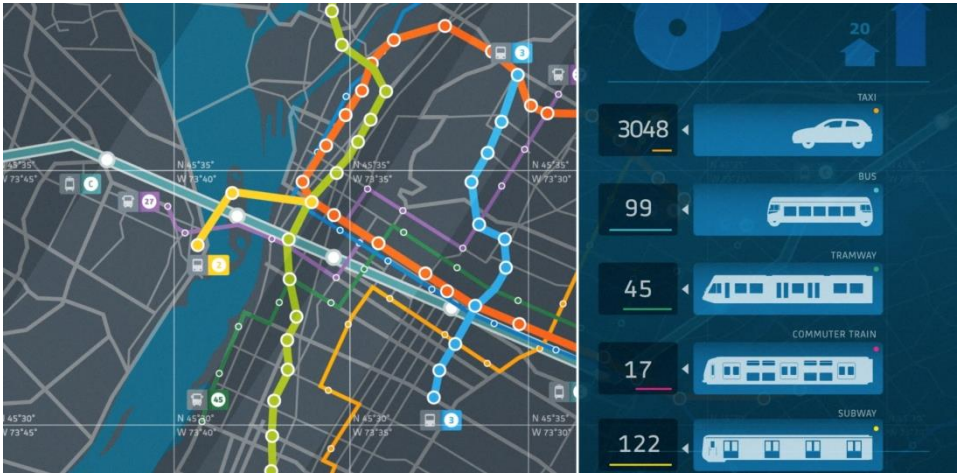
#### Enabling new mobility services

Enabling MaaS, Mobility as a Service, by generating high quality information accessible through open data platforms for on-demand services such as car-sharing, self-service bicycle, taxi, park and ride facilities

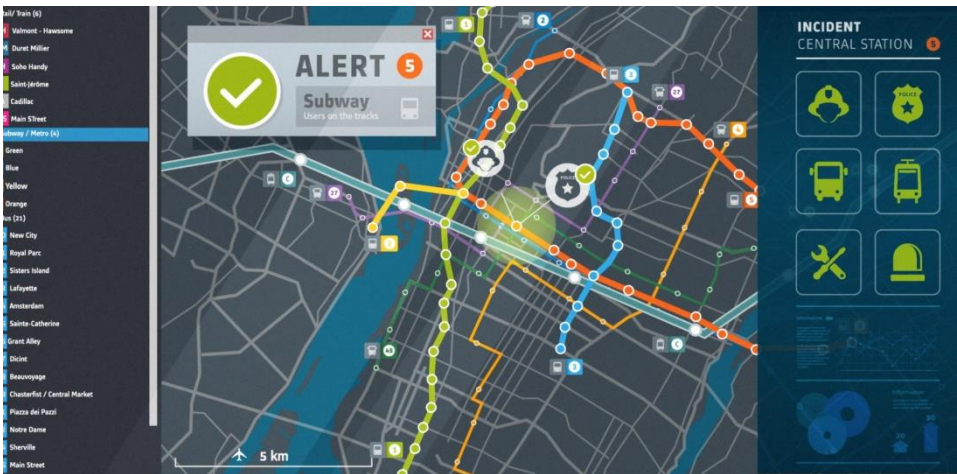
- Real-time information from all transport modes
- Information about incidents or big city events



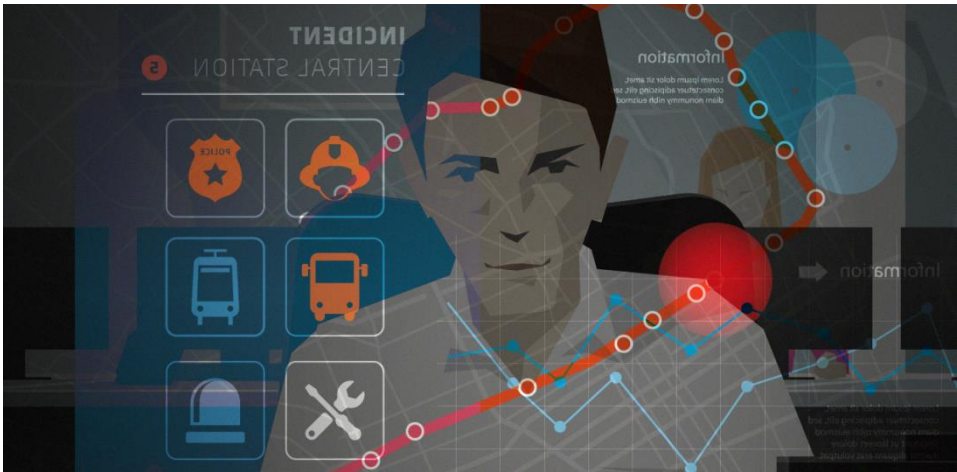
### Optimising multimodal traffic



### Coordinating all public transport modes and the different stakeholders: ticketing, security, police & fire department, maintenance.



### Orchestrating operation procedures



For more information  
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