

TransCityTM Smart and Sustainable Bus Management

THNS - November 17th 2012

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TransCityTM Thales Solution

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Flett Management TransCity: Presentation of February 16th 2012

Mexico BELGIUM - CHARLEROI 3 40 tramways 25 trams 300 buses 72 lines Thales has pioneered the fleet ma 25 trams **TAN (Nantes in France)** 1970's, addressing new needs 220 buses 100 trams operators to automatize some of TCRM (Metz in France) 120 buses 18 lines Since 40 years, Thales Continuously evolved its solution integrating new technologies and new operational functions. LYON MARSEILLE 1000 buses 26 tramways



50 service vehicles

600 passenger Information displays

600 buses

400 passenger Information displays

ABMS main objective

To provide a bus/tram operator with an **efficient operation tool** that would reduce its operation costs while ensuring the best quality of service to citizens.

What is an Advanced Bus Management System (ABMS)

- a central back office,
- equipment on-board each bus or tram vehicle
- a radio network linking both of them
- and others equipments providing passengers' information

The demanding requirements in terms of quality of service and operation performance, safety measures, and equipment reliability make an ABMS significantly different from a telematics fleet monitoring system.



Quality of service management

- Automatic Vehicle Location (AVL) based on GPS advanced technologies for buses or beacons for trams
- Automatic vehicle regulation : Time schedule adherence and interval management
- Bus Fleet real time supervision
- Driver management / driver assignment / change of driver
- Disturb management
 - add or delete service journey
 - diversion management
 - change of journey pattern
 - change of timetable
 - vehicle assignment: change of vehicle
- Alarm monitoring



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Passenger information

- Messages and voice announcement in stops and in the vehicles
- Departure hour at terminus and hours or waiting time of next passages at stations
- Web travel Information and SMS warnings
- public address, link with mobile phone, with telephone network, etc.
 (depending of the type of radio)

Security management

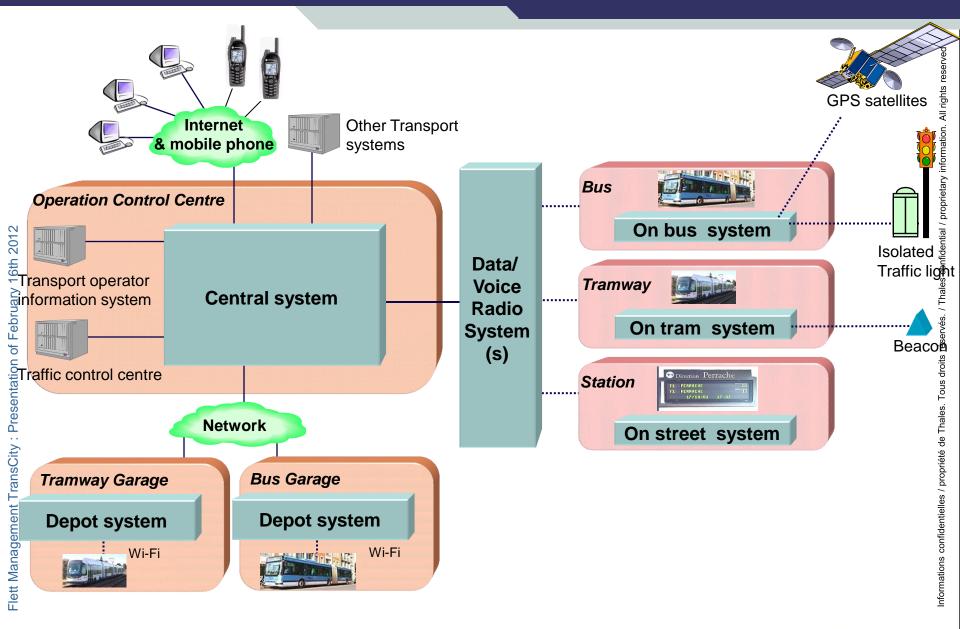
- Emergency procedure management including a driver emergency push button
- normal, emergency, distress calls, group calls

Service Configuration & Improvement Management

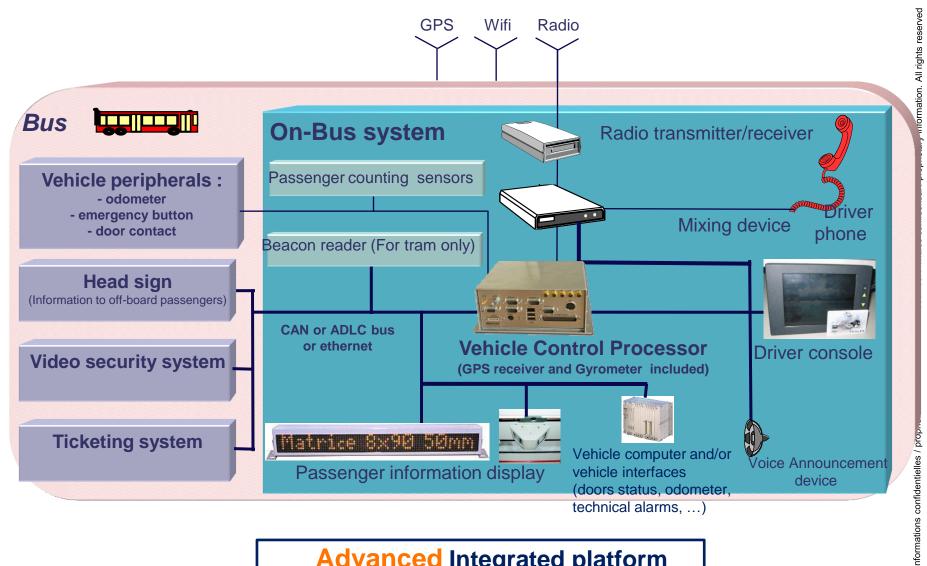
- Topology description of the Transport Network lines, bus stops
- Schedule, Time tables, Interchange parameters
- Driver and Vehicle Assignment
- Record operation event and data and Statistic analysis, Replay
- Operator training facilities



TransCity™ system overview



On-bus system description

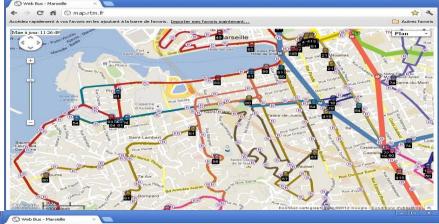


Advanced Integrated platform

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Vehicle Web Site by Thales – Marseille use case

- A public web site for passengers
 www.map.rtm.fr
 - Google Map Display
- Smartphone Access
- Real time bus schedule











Benefits for Operators

Benefits for Passengers





THALES TransCity™ BENEFITS

- ➤ TransCityTM decrease 5 to 10% in the number of bus/tram vehicles needed
- Additional 10 to 15% decrease of bus/tram vehicles when the AFMS is combined with traffic light management system

Increase revenue in fare collected, when taking the opportunity to implement a more efficient fare structure and a better control of the fraud, both made possible by TransCity™ IFS solution.

