Extracting knowledge from passenger data for deeper insight

The Thales transportation business analytics capability makes sense of the vast amounts of valuable data generated by transport networks, to provide deep market and operational insight. Far beyond basic sales and traffic reports, Thales innovative business analytics offers a complimentary approach, without the self-limitations or biases imposed by the usual surveying techniques, which unlocks the potential to transform every facet of your business.

Large volumes of data can be harvested from any source, including fare collection, signalling, supervision, communications and fleet management systems, including data from the public domain, and used to create a range of data forecasting products from daily operating reports to strategic plans.

Deeper understanding of passenger flows can:
- Aid decision making
- Improve revenues and operating margins.
- Support strategic and financial modelling of multi-modal or multi-operator travel schemes.
How to ask the right question?

Only by looking at the right data, with the right techniques, can accurate and pertinent insights be revealed. Developed in collaboration with academic partners, the Thales Business Analytics capability combines advanced analysis techniques with a deep domain knowledge. This means that Thales can provide quantitative decision making support based upon a practical understanding of the type of data that can be readily obtained together with a deep data analysis that can reveal hidden insights.

Revealing deep insight

Thales can help at all stages of the analytic process, from providing data gathering guidance to delivering reports that provide concrete recommendations – based on fact.

Actionable information

Output from data analytics enables operators to make better decisions, optimize operations and sales, and gain a competitive advantage with improved system efficiency.

Deeper insight

Analysis of passenger journeys supports development of an understanding of passenger behaviours and profiles to find out how they are using the network, what sort of journeys they are taking and what they are saying.

Plan for the future

Explore “what if” scenarios and test new ideas with powerful and easy-to-use simulations.

Make the case

Compelling analysis and forecasts can be used to build the business case for investment in new infrastructure projects or making changes to existing infrastructure.

Data visualisation

Interactive data visualisation tools are used to simplify complex operational situations, by using an intuitive user interface that facilitates trend spotting and “what-if” analysis.

Thales business analytics includes:

Data warehouse solution

A public transport customized data warehouse solution including multi-dimensional analysis and report builders.

Web portal

Complex data mining (segmentation and correlation analysis) studies with a dedicated interactive web portal.

Modelling/optimization studies

Advanced 3D visualisation tools can extend “what –if” analysis to simulate alternative scenarios including alternative platform layouts or passenger flows.

Data harvesting and mining

Data can be obtained from a number of different sources, such the vast amount of transactional information gathered each day from ticketing systems. In addition, data can also be harvested from social networks or blogs that reveal real public sentiment about the public transport service. At all stages, privacy of sensitive or personal passenger information is maintained.

References

- Oslo, Norway