

### Customer

Project Office RandstadRail  
([www.randstadrail.nl](http://www.randstadrail.nl))

### Location

The Netherlands, Rotterdam

### Date of delivery

October 2006

### Summary

Design for and development of:

- Real-time vehicle tracking
- Vehicle position unit
- Position information available for other systems
- Information exchange based on VDV standard
- System management and maintenance
- Initial registration of GPS coordinates
- Operation and control
- Installation of hardware and software

## RandstadRail Vehicle tracking system

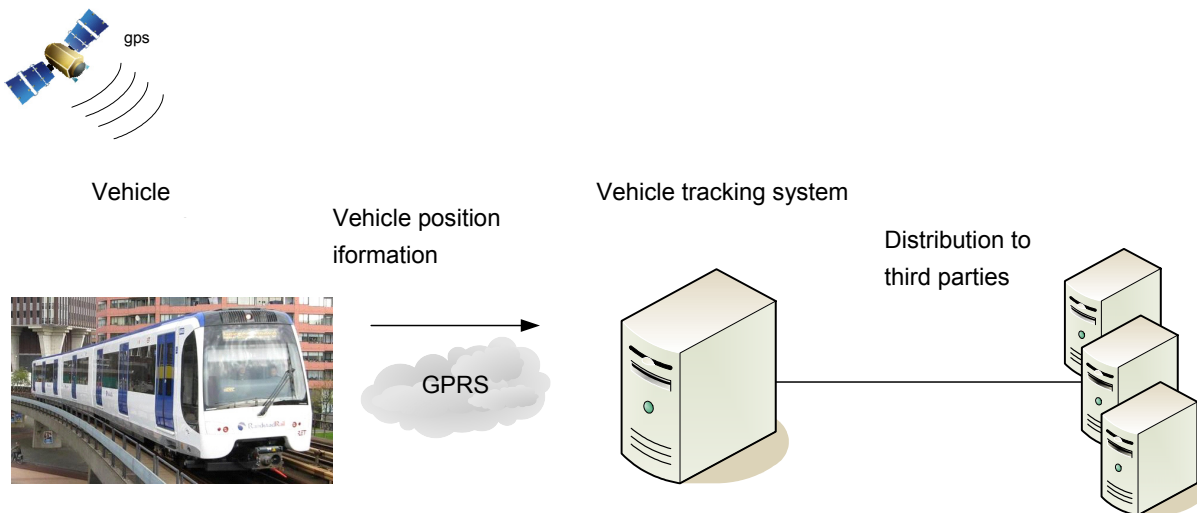
RandstadRail is the light-rail connection between the cities of The Hague, Rotterdam and Zoetermeer. RandstadRail offers comfortable and frequent public transport. As the system integrator, Strukton Systems was responsible for the design and development of the vehicle tracking system. This system tracks vehicles on the RandstadRail route and provides updated vehicle position information for the dynamic passenger information system displays.

Strukton Systems developed the software for the different system components in house, while standardised connections (VDV, TMI) were used for the system setup. Other transport companies or new concession holders can therefore easily be linked up to the central system. What's more, standardisation offers opportunities for linking up various passenger information systems and for future innovations.





The vehicle tracking system consists of a central system and decentralised vehicle position systems installed in the vehicles. The decentralised system consists of a computer unit, which calculates the vehicle's actual position using GPS technology combined with odometer readings. Given the poor level of GPS reception in the urban areas of Rotterdam and The Hague, various parameters are also read from the vehicle in order to calculate its position – even without a GPS signal. Information about the position of the vehicle is transmitted via GPRS to the central system and is therefore available to other systems as well.



*Schematic diagram of vehicle tracking system*

