

Bringing service to life



## Providing Travel Time information to Drivers

### Travel Times

A recent initiative in England is a new service that gives real-time predictive traffic information to road users. Using Variable Message Signs, this service was introduced in September 2007 by the English National Traffic Control Centre (NTCC). The NTCC in England is delivered by Serco to the Highways Agency under a Private Finance Initiative.

The Travel Time on Variable Message Sign service (TTVMS) that Serco provides for the Highways Agency in the UK uses real-time measurements of journey times and historic "profiled" information from 1 000 Automatic Number Plate Cameras



The TTVMS service adds to the scope and availability of the information that customers receive complementing other existing services. TTVMS provides drivers with greater predictability on their journey and enables them to make informed decisions where there are significant delays on a particular route. When there are no significant delays, reassurance that a journey time is not going to exceed their expected time encourages drivers to drive more smoothly and at less speed, therefore reducing the probability of incidents occurring.

Operation of the service is entirely automatic, in that the generation of Travel Times and the setting of Information Points (VMS) is carried out by software, without the need for operator intervention. All travel times are predicted (rather than measured) and use a combination of historic data modified by current conditions. In rapidly changing conditions (for example, an unplanned event on the network), the system switches from travel time to displaying an estimated delay calculated by the NTCC system and confirmed by NTCC operators. If a delay value is not available for publishing, then the VMS will be blank.

To ensure Travel Times are not published that would imply travelling at faster than the legal speed limit, predicted values for individual sections are limited to the minimum journey time which is achievable legally, including where there are speed restrictions due to planned events such as roadworks.

Feedback has been very positive from road users, with the main benefits perceived to be:

- Greater reliability of journey times
- Ability to make route choices en-route
- Increased confidence in VMS settings
- Better information about the reason for and extent of delays reducing frustration for road users
- Roads and the road users' journey is being monitored and the authority cares about the performance of the route.

Future developments under discussion are:

- TTVMS on Transportable VMS for use at long-term roadworks or special events. In these situations, the provision of predicted travel times is even more important than during normal operation on uncongested routes.
- TTVMS signing alternative routes to the same destination. For example, road users approaching an orbital road could be given travel times to a destination in both clock-wise and anticlockwise directions, allowing them to make informed decisions and helping manage demand.
- Predicted travel times to multiple destinations from a major traffic generator such as a large out-of-town shopping complex. In the UK there are 3-4 major outlets to which a significant number of customers travel for over two hours. Displays in the centres would show the predicted travel time to a variety of destinations and different routings.

The techniques and principles which were used to develop TTVMS for the Highways Agency can be used to develop a service which meets the needs and environment of other road traffic authorities. For more information contact Serco Integrated Transport.

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