

Centrico BRIEFING NOTE

Using ITS to manage Europe's busiest roads



Traffic Information at Toll Plazas

SUMMARY

CENTRICO partners have deployed traffic information services using various media such as mobile Internet, isofrequency radio, RDS-TMC, VMS and IVR telephone services. In France, the SAPN has recently developed a new service to provide drivers with personalised traffic information at toll booths.

WHY TRAFFIC INFORMATION IN MANUAL TOLL LANES?

SAPN's current strategy relies on providing customers traffic information from a variety of sources: the internet site (www.sapn.fr), the radio station 107.7 FM, variable message signs, and the interactive telephone service. As a recent addition to this suite of information services, the SAPN have developed tools to allow toll booth operators to inform customers of significant events, such as a road closures or slow traffic.

Prior to this initiative, toll collectors did not obtain any information regarding the status of the network (107.7 radio broadcasts required too much attention from the agent, whose primary responsibility should remain the toll collection).

The objective of this project was to provide real time traffic information to the agents. SAPN created a working group to study various methods of achieving this.

THE SOLUTION ADOPTED BY SAPN

Twelve toll booths operators were invited to join the pilot study.

A number of technologies likely to provide the

necessary information to answer the most frequent questions were analysed. The solution developed had to be ergonomically designed and easy to use by agents.

Three potential solutions were identified:

- a banner message posted on tollbooth screens,
- a small VMS sign, and
- a graphical terminal showing a map of the route.

The graphical interface terminal was adopted as it met all the requirements. A PC with a touch-screen allows operators to quickly view where problems are occurring and alert customers. It also provides real-time travel information on potential destinations of the customers. All data is refreshed every 3 minutes ensuring that information is always up-to date.

THE DEMONSTRATION PILOT

Two toll plazas on the A13 were selected for a pilot: Dozulé (beside Caen) and Heudebouville (Louviers). Two tollbooths in each toll plaza were equipped with the trial system, one in each traffic flow direction and were operated 24 hours a day in order to capture as possible. The pilot project lasted 3 months, during which time several key areas were evaluated.



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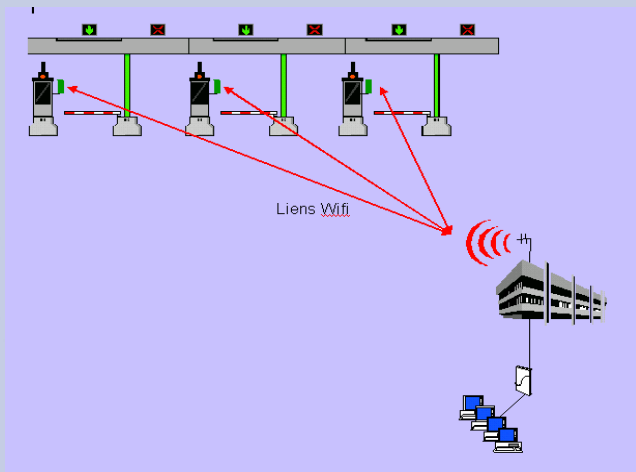


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1. Network Communications Links

A Wi Fi network links the Internet connection to SAPN tollbooths in Heudebouville, whereas at Dozulé, the system connects directly to a fibre optic network.



2. User Interface

Touch-screen buttons provide toll operators with direct access to the map with the ability to pan and zoom or to quickly locate travel times from the toll point to key destinations.



3. Design Solution

3 sizes of tactile screen were tested, 7", 10" and 12".



EVALUATION AND NEXT STAGES

Pilot study results proved very positive. 80 % of the toll collectors found the system simple and easy to use.

The overwhelmingly supporting reaction by toll collectors and drivers has prompted SAPN to prepare this system for deployment at tollbooths and service areas. Improvements, especially use of the touch-screen, have been studied further to ensure that toll collectors are able to dispense information efficiently.

The information terminal is currently being added to the specifications of the new toll collector workstations. It will be a standard feature that will be widely deployed as part of the SAPN's toll modernisation program.

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