

## **The evolution of traffic information technology in an increasingly congested world**

### **Background: the need for reliable traffic information**

Most drivers know all too well that today's road networks are becoming increasingly congested. With more and more cars on the roads every year, the frustration of spending time stuck in traffic is something millions of drivers face every day.

Many rush hour drivers are already actively looking for traffic information both before and during their trips. This usually means relying on radio broadcasts, but can also include SMS messaging services, television, Teletext, roadside signs and the Internet.

The difficulty with the data that these traditional methods use is that it relies mainly on a fixed single source of information. This, coupled with the fact that updates could be less regular than drivers need, causes problems of reliability. It is very frustrating for drivers to find that they have just missed an update and end up in a jam, without knowing when they might get through it.

Which leads us to another issue – the current services are limited in the source information they can reference, making them less reliable for route changes or more realistic estimated times of arrival. In effect, these don't give drivers the full picture, making it difficult for them to use the information to make an informed route decision.

### **TomTom takes the lead**

The limitations of existing technology spurred the navigation industry to explore new solutions. TomTom has developed a new traffic information service that includes data from mobile phone companies and combines them with other sources to provide the most accurate information.

Rather than simply measuring the lengths of traffic jams, information from the GSM network from travelling mobile phone users makes it possible to monitor, in real time, the actual speed of millions of cars across the road network. This data can be merged with anonymous real-time GPS data from connected TomTom customers and information



from traffic authorities, road operators and commercial third parties. The key to the power of this service lies in the ability to compare these data sources, filling in any gaps and providing a much more robust picture of the traffic situation than is possible when there is less data, and coverage, to go on.

TomTom's system is intelligent and self-learning, with the ability to screen out data that would contaminate the results, for example mobile phones on a speeding train in the vicinity or motorists stuck on the hard shoulder. The scalability of the system also means that future sources can be easily added, giving an even fuller picture to the driver, and giving them a feeling of control in any traffic situation.

TomTom's navigation device maintains a constant live GPRS data connection to its traffic centre.

This has resulted in a truly next-generation traffic service, providing drivers with a far more accurate estimated time of arrival (ETA), constantly updated in line with the current traffic situation.

### **The TomTom solution – HD Traffic**

This cutting-edge technology was launched in the TomTom ONE XL HD (High Definition) Traffic device in the Netherlands at the end of 2007. The very best data sources are merged to deliver an accurate view of the traffic situation throughout the road network. And the ONE XL HD Traffic ensures a constant connection to the service and an easy out-of-the-box experience so drivers always make the right decision when it comes to selecting an alternative route.

"We see HD Traffic as a major breakthrough in mobility management and route guidance," said Harold Goddijn, TomTom's chief executive officer. "We are thrilled to offer our customers an innovative new traffic service featuring unprecedented accuracy and quality. HD Traffic is revolutionary and will significantly improve the navigation experience of our customers."



The service is also a feature on the new GO x30 series in the Netherlands, and is planned to be launched in the UK, Switzerland and Germany this year and in France in 2009.