

The Age - Drive  
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**Smart sat-nav to monitor traffic**

An FM radio-based advisory service should help to keep Melbourne's traffic flowing. BARRY PARK reports.

Barry Park

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The Suna Traffic Channel viewed on the sat-navscreen (bottom left) provided the Drive team with an early heads-up to the tow truck seen here through the driver's side window. Picture: Gary Medlicott

You're breezing through the streets of Melbourne without a care in the world, well ahead of schedule for an important meeting. Suddenly, your once-quiet satellite-navigation system sparks to life. "Warning, congestion ahead. Traffic accident. You have added 30 minutes to your travel time," it announces in a calm, collected voice. "Would you like to re-route?"

Oh no, you'll be late. A push of a button and the sat-nav system instantly recalculates your route, steering you through quieter roads around the trouble spot where traffic is sitting bumper-to-bumper.

You arrive at the meeting on time, seal the multibillion-dollar deal, win the lotto that night and get a job offer the next day to jet around the world test-driving Ferraris in exotic locations.

OK, so a lot of what you've just read is a string of pure fantasy, but not all of it. By Christmas, there really will be sat-nav systems smart enough to spot random traffic black spots and offer drivers a choice: sit in traffic or skirt around it.

A small Abbotsford-based company, Intelematics, is weeks away from trialling the first radio-based real-time traffic information service in Australia.

Similar services overseas, including the US, much of Western Europe and Japan, have been operating for years.

But the system has been slow to get off the ground here, mainly because of geography.

Traffic congestion overseas mainly relates to major roads connecting cities, but in places like Melbourne, it's about what happens within the city, not outside it.

The technology uses the Radio Data System, a standard set in Europe that can send information over FM radio waves. You may already be familiar with RDS - it's the same system that can display the name of the radio station and song titles on some car stereos.

Intelematics uses RDS to send snippets of information about traffic flow to a receiver in the sat-nav system. Most cars with in-built satellite navigation, and many sat-nav systems that attach to car windscreens, are already able to use the information the company will broadcast via its Suna Traffic Channel at 101.1 MHz on the FM radio band.

Owners of portable sat-nav systems will need to buy an FM radio receiver for their unit, but in-built car systems should already be set up to work with the service.

Suna Traffic Channel works by taking data from sources such as logs of freeway travel times, roadworks, tow-truck dispatches and the information traffic light systems use as they cope with the ebbs and flow of traffic throughout Melbourne.

This information is then fed into a computer that generates a model to highlight the places where congestion is likely, and the result is broadcast over FM radio and downloaded to the sat-nav system's memory within 5-10 minutes of first being noticed. The sat-nav system can then display the information on the map in near-real time, provide warnings, and, if necessary, take the long way home.

Intelematics chief executive Adam Game says despite Suna Traffic Channel's potential, his company is not going to start promising faster travel times to its subscribers.

He says the main benefit of the traffic management channel, or TMC as it is more commonly known, is preventing drivers from becoming stuck in "inordinate and unnecessary" traffic delays.

"It won't get you home quicker every night. It will get you home calmer and in a better state of mind.

"It's not a panacea for peak-hour congestion. It's a solution for unpredictable traffic events."

Mr Game says car sat-nav systems are becoming far more than just electronic street directories.

"They can also help people deal with unusual events. General rush-hour congestion has no cause other than it's just congestion.

"But where there is a cause - say it's triggered by an accident or weather conditions or roadworks - we add that to the message and that helps the motorist gauge the duration or severity (of the congestion)."

And it's not the aim of the service to tell you what you're already seeing outside your car window, particularly if you're already caught in a traffic snarl, Mr Game says.

Instead, it's to help those drivers behind you who are heading towards the blockage.

Armed with information about the type of event that is stopping traffic ahead, drivers can then make the call to divert or stay the course.

"What the TMC service allows people to do is to judge whether they're in routine peak-hour congestion and they should stick to their normal route, or, in fact, there is something unusual going on that makes it worth diverting."

There's a wider benefit, too. Mr Game says studies show that reducing the amount of traffic on a road by as little as a few per cent can clear the logjam even faster. Traffic management channel subscribers are therefore doing their fellow drivers a favour if they choose to divert their route.

About 30 per cent of cars sold in Europe have sat-nav systems; in Australia, it's much lower, down around 2-3 per cent. Cars in Europe are sold with a lifetime subscription to traffic management channels, and the car companies, not car buyers, carry the cost as a service to their customers.

Intelematics is considering selling its service in Australia using a similar model, and is in the early stages of talking with the local car companies and portable sat-nav system importers to see if they're willing to bear the cost for their customers.

However, if local car companies and sat-nav importers don't want to, subscribers could expect to pay "a couple of hundred dollars" for a lifetime subscription that would stay with the car, not the person buying it, Mr Game says.

Similarly, owners of portable sat-nav systems would need to resubscribe each time they bought a new device. Whoever bought their old device second-hand would have access to TMC if it was a lifetime subscription.

The company is also looking at annual subscriptions.

How well, then, does it work? We took a drive through central Melbourne in search of the typical problems a city-bound commuter may face.

Our Holden Statesman test car was fitted with an after-market Blaupunkt sat-nav system that looked every bit as good as the Holden-badged version.

With a technician back at Intelematics giving us guidance via a web-based map of the whole of Melbourne - customers will be able to access the same website to check on road conditions before they begin their trip - we soon found the slow spots.

Stretches of heavy traffic prompted an audible warning of more ahead. An icon of a tow truck flashed up on the screen, somewhere around the top end of Exhibition Street, and Mr Game suggested we go and see what it meant.

Sure enough, there parked by the roadside was a tow truck, orange warning lights flashing, about to hook up to a car that had driven into the back of another.

The traffic was flowing quite well around the accident scene, and by the time we looped around for another look, the icon had disappeared from the map.

Mr Game says such incidents will be monitored in real-time and that Intelomatics is even monitoring the city's roads from VicRoads' traffic operations centre in Kew.

It's these human operators in key locations who will be able to provide drivers with information on what it is that's slowing things down ahead.

Subscribers to the Suna channel will only be presented with information that affects them directly, Mr Game says, and as soon as an incident becomes a non-issue, just like the tow truck icon, it will disappear from view.

For Melbourne's frustrated peak-hour commuters facing yet another uncertain future, that can only be a good thing.

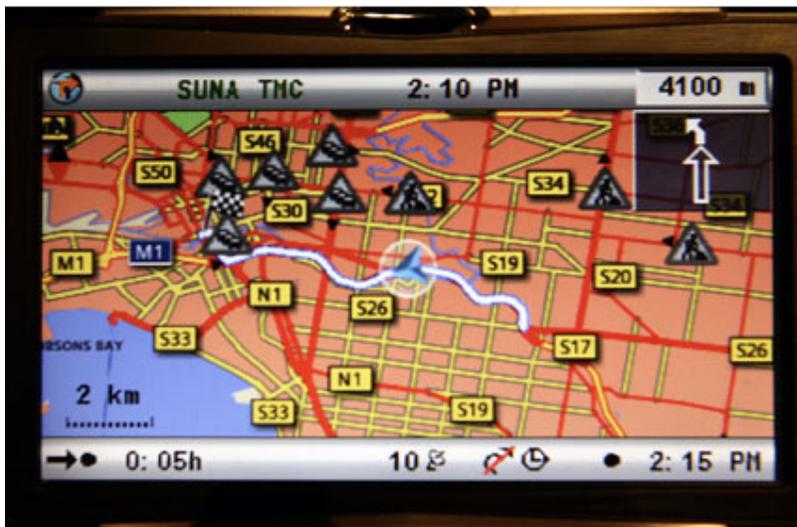
The Suna Traffic Channel viewed on the sat-navscreen (bottom left) provided the Drive team with an early heads-up to the tow truck seen here through the driver's side window. Picture: Gary Medicott



As well as verbal advice, the Intelomatics real-time traffic information service will provide written warnings. Picture: Gary Medicott



It also provides detailed maps.



<http://www.drive.com.au/Editorial/articledetail.aspx?articleid=42516&vf=12&IsPg=0>