

Telematics – a pipe dream or Airmax’s European market opportunity



Telematics is the provision of information and other services into the vehicle by means of GSM, radio or satellite telecommunications. This could take the form of GPS information, text messaging, vehicle diagnostics and forensics via the On-Board Diagnostic system (EOBD) and CANbus, traffic information, breakdown and emergency alerts and "off" board navigation. It includes travel and vehicle-specific value-added content, applications and services.

Applications

Although the “killer application” has yet to emerge the diverse range of services, which telematics can provide, will provide the momentum for its long-term success. Though still embryonic the telematics services currently available or envisaged are categorised as:

Safety and e-support - notably, e-call (emergency assistance) (911 in USA) and b-call (roadside assistance); the former possibly linked to airbag actuation to provide automatic collision notification. A more-advanced service could involve an accident "black box" relaying details of the crash severity and occupants' medical details to the emergency services. Airmax’s technology captures the last 15 seconds of vehicle data to help examine events prior to airbag activation. This will be of untold assistance to cash investigators or insurance companies and noises are being made in a few countries to mandate this function.

Traffic information, navigation and route-guidance. On-board or off-board map data integrated with position information. Supplemented by real-time traffic information and congestion alerts to provide dynamic route selection and guidance. Though this has been the first of the telematics services to emerge, promoted by some OEM’s, it is not seen by Airmax as the killer application but will become part of a suite of services proved through an on-board voice activated service menu.

Remote management, (e.g. remote central locking, relay switch management and immobilisation). A ‘must have’ in the USA where often drivers will leave their keys in the vehicle only to become timed-out and then become auto-locked. Remote immobilisation within Europe is so far contained to “immobilisation once safely parked and engine is switched off with no restart”

Theft detection and stolen vehicle tracking (AVL) Seen as the founding application and once thought to become the killer application, but often over priced and considered by the driver to be a grudge purchase having been forced to install a system by either the insurance company or their fleet manager. With the advent of quality CELL ID existing in-vehicle units will become replaced by the standard mobile phone. All four UK GSM networks now offer the service via web application developers. With the issues created by the Data Protection Act this application will require the consent of the driver.

Remote vehicle diagnostics, forensics, prognostics and engine and driver monitoring. The ability to notify fleet managers and drivers of pending vehicle faults or to run a remote “scan disk” on the vehicles systems will assist in the planning and maintenance of vehicles and as well as preventing expensive vehicle or driver down-time. Remote over-air-programming and off-board service interval



PIPE DREAM

and maintenance scheduling is manager management tool and offers real fleet savings and as well as the potential peace of mind for the driver. By far Airmax's flag ship application, as it is here that demand is high and rewards are the biggest. Airmax's new 'Remote' Diagnostics system enables the asset managers to confront and control warranties issues and be able to administer 'Just in Time' (JiT) vehicle management thus avoiding expensive claims and more importantly arguments about liability and accountability of system or product failures. Being also able to listen and potentially talk to the engine electronics will provide the sales pull by the leasing and contract hire companies. Vehicles will become self-analysing or will order component parts as needed without human intervention

Location-based services, Geo-coded data such as weather reports, car-parking availability, and point-of-interest information. Mostly offered by the networks on premium number and to offer sticky value added services. Clever applications for insurance and geo-coded drivers data including drive-by-the-mile insurance will emerge in this sector.

Convenience/productivity services. (e-mail, m-commerce and Internet connectivity).

These emerging services emphasise different aspects of telematics. Content-centric services include, for example, traffic news; while m-commerce covers transaction-centric services. Location based information (typically, using GPS or Cell ID) is frequently an enabler of services - content-centric services, in particular. Airmax predicts that in-vehicle broadband, via satellite, will become available to further enhance applications and new services. Public transport will offer video on demand and fast Internet connectivity as if you were at your normal PC. Thus we will see the introduction of fast connectivity to onboard computers and PDA's, with VOIP and Bluetooth cordless telephony applications (CTP).

There are also services developed specifically for the commercial vehicle market to support asset management, cargo tracking, toll payment, etc. Airmax is offering a GSM J1939 remote access tool listening the vehicles onboard computer in real-time. Airmax sees this market influencing the MOT inspection cycles of vehicles to enable less vehicle downtime and driver-time management. Drivers that fall below standard will be identified; will also be offered training especially in fuel management.

European Telematics Market 2002 -2007

To date Airmax has not entered the so-called "rear-seat" market for delivery of entertainment (music, video, games), an area where some suppliers see greater market opportunity.

End-user applications will not be the only factor driving the telematics market. The ability for car manufacturers to offer services such as remote diagnostics, service scheduling and personalised communications will provide significant cost savings. Remote diagnostics alone is expected to save OEMs millions in warranty and maintenance costs. Airmax has already taken orders for 50,000 vehicles for 2004 and expects this to double. The market is also very active for the non OEM's, the so called Tier 2 suppliers, as it could be argued that OEM's might not be able to justify having laid off the risk on warranties to specialist insurers. Remote diagnostics, it is claimed by those on the shop floor, does not sell more cars.

As competition increases, for the OEM, direct profits from telematics are likely to be elusive; gains and value added will be indirect, in areas such as customer relationship management and vehicle relationship management and support.

Safety key to success

In Europe, there is growing concern that EU legislators could, on safety grounds, ban certain telematics devices that distract the driver. Legislation, the driving force for growth for many new automotive systems, could in the case of telematics significantly limit market growth. As a result, voice control and recognition will become a key factor in enabling telematics services to be delivered safely to the vehicle. Airmax believes that legalisation could initiate a 'sales pull' but could also become a 'sales suppressant'. With new hands free legalisation in many countries now very topical and influencing buying patterns many could just opt out and avoid the issues until later. On the horizon are issues, yet to be aired, on topics such as data protection and corporate manslaughter: it will be law courts and case law that influence the decision makers.



PIPE DREAM

Winners & Losers

Various market sectors and specialist companies are positioning themselves to benefit from the long-term opportunities offered through the adoption of telematic systems and services. At this stage however, it is too early to say which of the contenders – OEMs, leasing companies, automotive systems suppliers, telecom operators or value added content/service providers – are best positioned.

OEM's, which for a number of years saw telematics as a new and profitable revenue stream, are facing increasing competition from telecommunication operators and content/service providers for subscription revenues. Interestingly Airmax believes in the opposite and that most services are not able to justify monthly subscriptions and that so called 'providers' will come and go as we all witnessed Internet Service Providers (ISP's) do the same in the late 90's.

The telematics value chain is not straightforward, it is a matrix of partnerships and relationships, since no single company has all the resources needed to offer a complete telematics service. It is dangerous ground for the Network Providers to offer their own services, becoming both network and solutions provider as it gives them both an advantage and may act to stifle invention. There are many examples of this that can easily be researched on the web. However don't be surprised to see alternate solutions to enable others to compete in the communication sector. Airmax has pioneered some of this development work as all GSM networks have invented their so called telematics tariffs which have a small element of line rental associated with their provision. One SMS message a month can therefore cost £2.50 per message with the networks claiming that they will not support pre pay SIMS. This is clearly an effort to manage the margin on services and control the market entry of others. Bluetooth or Zigbee will assist in offering an alternative and new application using GPRS will alter the market offering completely.

Ownership of the client, as such, is not as important and possibly impossible, as ensuring that the service offered to the market ideally has both maximum appeal to the customer, whoever it may be, and maximum value to the stakeholder. The currency not necessarily being monetary - branding may be the important, service or risk management.

