

Telematics Background

Definition –

In its simplest form, the definition of telematics refers to a two-way connection to and from a vehicle for data and information transfer. OEMs typically use the term to refer to combinations of navigation, safety, entertainment, and Internet linking systems in a moving vehicle, although additional applications (stolen vehicle tracking, for example) are becoming more common.

“Monitored” systems refer to vehicles with embedded telematics (auto and consumer telematics), while non-monitored are those using Bluetooth.

Current Status –

While the industry did not live up to the enthusiastic growth projections that were announced a decade ago at the inception of the telematics movement, there appears to be a new wave of interest and commitment to the idea of telematics.

Industry analysts are expecting a proliferation of new services to connect vehicles to outside data in 2010. Companies have learned from the failed business models of the past and consumers expectations have changed. Consumers are now looking for telematics to mirror the level of connectedness they get from consumer electronics rather than expecting their vehicles to do what their PCs do.

The growth in wireless connectivity (and the value consumers place on it) in the consumer electronics market will spill over into telematics and spur its growth.

Market Projections –

- According to Telematics Research Group (iSuppli) there will be more than 30 million telematics-enabled vehicles on the road by 2010.
- For the 2007 model year, 30% of the cars available for sale offered monitored or embedded telematics. Non-monitored telematics were available on 36% of all 2007 models offered for sale.
- Telematics Research Group projects that auto telematics (diagnostics etc.) will be required by all major OEMs in the U.S. by 2010 or soon after.
- A study by ABI Research projects that telematics hardware and services will generate \$38.3 billion in revenue globally by 2011.

A Changing Business Model

Some in the industry believe that telematics services must increasingly be available without a subscription in order for them to gain wider market acceptance. Microsoft, for example, worked with Ford on their Sync voice-operated entertainment and phone services. Rather than adopting a subscription-based model, the cost was built into the price of the vehicle. Another option, going forward, would be to fund the services with advertising revenues, similar to the Google model.

Research suggests that consumers are finally being enticed by the services offered by telematics and that the take rates for telematics devices are higher than ever before. This strong growth will help to pave the way for a sustainable business model for telematics in the auto industry. A key part of this will be the service offerings. The competition telematics suppliers previously experienced from connected and mobile consumer electronic devices have driven the industry toward the realization that the suites of services are the key to differentiation and greater profit margins.

Auto telematics, or the applications related to improved operation of the vehicle, are increasing in importance to OEMs, as they will see cost saving benefits to their own operations from implementation. There will, however, be a significant infrastructure investment that will be required (i.e. secure networks, operational centers, client-server architecture knowledge, and data mining development). Thus it will likely be several years before the full spectrum of benefits from auto telematics and financial payback are realized.

Traditionally, telematics functions like GPS, hands-free telephone, navigation and other systems have been separate, but there is an incentive for industry players to combine them onto a common platform. This will help to lower costs and make telematics more attractive as standard features on new vehicles.

Growth Drivers

- Growth for the telematics sector hinges upon connecting data from the car to data on the outside in a way that helps the driver.
- The increasing digitalization of the vehicle – i.e. the portion of control systems in the vehicle that are controlled by computers – will pave the way for future growth in telematics services.
- In the current economic climate, applications that contribute to cost savings for the driver will become more important (for example, fuel-consumption monitoring and reporting, vehicle diagnostics for maintenance etc.)
- As the market grows and OEMs include telematics equipment on lower-priced vehicles, providers will be challenged to provide experiences that are more relevant to the individual consumers' daily routine, rather than just safety, security, and vehicle diagnostics. For example, this could include more connections between the car and outside which offer value-added services and information for the driver – information specific to the driver's route, refueling and least cost routing, and zone-by-zone weather patterns for long trips, etc.
- Longer-term, further expansion of telematics services will eventually include integration into a smart roadway infrastructure that will link with in-vehicle systems to promote safer driving and prevent accidents from occurring.
- Linking the many electronic devices that are part of today's passenger vehicles with consumer electronic devices will give drivers the equivalent of a high-end dedicated telematics system. For example, many vehicles across the pricing spectrum now feature a touch-screen display, a hard drive, GPS antenna, and communications link – features that form the foundation for the telematics system.
- Future systems may also provide the driver with warning systems, alerting them to speed traps, traffic cameras or inconveniently timed traffic signals.
- Telematics has the potential to play an important role in the green movement through emissions monitoring. For example, California is also working with Hughes Telematics on virtual emissions testing. This would ultimately prevent the consumer from having to physically take their vehicles to state inspection stations to conduct the tests.

The Competitive Environment

The competitive environment in telematics services is complex because there are various elements that create value. Furthermore, because each player has a slightly different product or service offering, or combination thereof, the competition is usually not “one-to-one.”

Examples of Broader Service Players –

ATX Group (Irving, TX) – A global leader in providing customized telematics services that are relevant to the individual driving experience. The company was recently acquired by Cross Country Automotive Services, and together the two companies are projected to serve more than 76 million consumers. As a result of the acquisition, Cross Country is positioned to handle the auto industry’s expected rapid telematics growth.

Hughes Telematics (Atlanta, GA) – The company is the only independent end-to-end telematics service provider. Hughes was awarded “Best Embedded Telematics Service” at the 2008 Telematics Awards. The company differentiates itself by managing all the components of a telematics solution (hardware and service).

Examples of Niche Players –

Lo Jack (Westwood, MA) – A worldwide provider of vehicle tracking and recovery systems.

Tracker Network (Uxbridge, UK) – The company is the UK leader in stolen vehicle tracking and also supplies fleet management systems for the telematics industry. Tracker is Google’s largest fleet tracking partner.

Examples of OEM-Based Services –

- **BMW** – BMW offers BMW Assist and BMW Online to provide information about driving route, destination and other travel facts. Similarly, BMW TeleServices combines the navigation system with the in-car phone with the goal of improving the driver’s safety and mobility
- **Ford Sync** – Allows personal devices like iPods or MP3 players to use the in-car audio systems. Some of the new systems place emergency phone calls over the driver’s cell phone.
- **GM OnStar** – GM’s proprietary in-vehicle safety and security system