bynx
software without boundaries

The **next** revolution in vehicle management - telematics

Bynx is a market leader in fleet, leasing, accident and vehicle rental management systems that support telematics technology integration

"By partnering with best in class telematics, we are drawing the benefits of this revolutionary technology into **bynxFLEET.** Customers can utilise its wealth of potential to launch new products, value-added mobility services and management initiatives to achieve benefits that will make their businesses more streamlined, competitive, productive and profitable."

Gary Jefferies
Sales and Marketing Director, **Bynx**

Telematics comes of age

Telematics has come of age. Through the use of intelligent and modern devices it is now enabling the launch of new businesses such as car hire clubs, specialist insurance services for young drivers and a raft of fleet management and smart mobility schemes.

Through our flagship product **bynxFLEET** it will also bring a host of cost savings, efficiency gains, increased productivity and vehicle utilisation to fleet management companies and fleet operators. It is enabling insurance sector businesses (such as our valued customer Helphire - see pages 3-4) to remove and minimise the risks associated with vehicle investment at the same time as enabling the company to handle claims more effectively and complying with legislation.

Telematics began as a way of locating and recovering stolen vehicles. Now it's a real enabler; a way of launching new businesses, new services and making driving safer, more enjoyable and productive, alongside supporting the development of the smarter cities of the future.

This white paper offers an insight into Telematics and demonstrates the value it can add for vehicle businesses.

> Experts are predicting that the European market for telematics will be worth some £6bn by 2013. In 2001, the telematics market in Europe grossed an estimated €550 million."
>
> **(Commerzbank Securities)**

A brief history

Automotive telematics began as embedded devices, such as computer controlled fuel injection and anti-lock braking systems. Newer embedded solutions include anti-collision control, active noise reduction and electronic clutches.

Early stage telematics were systems used by insurers to locate and recover stolen vehicles and seeing the economic benefits of such initiatives, governments around the world have since legislated that all new vehicles are fitted with tracking and immobilisation devices.

Telematics technology is now enhancing the driving experience by making it safer, more enjoyable and productive. With telematics, there is a premise that drivers will be able to avoid traffic jams and transform their cars into moving offices and infotainment centres (within safety guidelines of course) and that authorities will be able to monitor traffic flows and more effectively facilitate road rescues.

While there is a long way to go before this is the norm, there are many valuable telematics applications available today that can bring real-world benefits to vehicle-based businesses.

Where telematics comes from

The word 'Telematics' originates from the German word 'telematik', a hybrid of telekommunikation (telecommunication) and informatik (information science).

Telematics is a term used to describe M2M (machine to machine) connectivity as part of an intelligent network, typically any integrated use of telecommunications and informatics (also known as ICT – Information and Communications Technology).

The true definition of telematics is that it enables the sending, receiving and storing of information via telecommunications devices and it gives operators the ability to control certain aspects of remote objects – in this case, vehicles.

Telematics - different from telemetry

Telematics is different from telemetry and the two are often confused. Vehicle telemetry is the transition of measurements from the vehicle to a remote computer, which can then use computer programs to extrapolate and analyse the data. It's most noted application is in motor racing. Telematics collects data as to how, when and where a vehicle is being driven and how it is performing.

Vehicle telematics is essentially about the convergence of telecommunications and information processing. It can also now include vehicle automation such in emergency warning systems, GPS navigation, hands-free mobile phones, wireless safety communications and automatic driving assistance systems.

Telematics-based applications commercially available today

Car Hire Clubs

Vehicle telematics technology has enabled car clubs to emerge, such as City Car Club in the UK and Charter Drive in Australia. Using telematics technology, club operators can track members' usage and bill accordingly on a pay-as-you-drive basis. They can offer member portals that allow customers to locate and book idle vehicles.

Telematics insurance

With telematics insurance, (such as Carrot Insurance - www.carrotinsurance.com) a data collection device (about the size of a deck of cards) is fitted inside the car and this records when and how it is being driven: speed patterns, mileage, cornering, swerving, braking, acceleration and so on to build up a picture of personal driving style. The device sends the data (using a standard wireless communication network) to the insurer who then uses it to calculate an individual insurance premium accordingly.

The service is particularly targeted at younger drivers where premiums have risen to unprecedented levels in recent years.

For careful drivers, who typically cover less than 6,000 miles a year and drive outside of peak times, telematics insurance can be an attractive option. Their premiums will be based on actual data applicable to them rather than a generic set of statistically base assumptions.

Carrot Insurance also offers a rewards and loyalty programme, tailored to its young driver market.

The Insurance Claims Segment

Customer Case Study - Helphire

Helphire has been a **Bynx** customer since 2007 when **bynxFLEET** was deployed to provide a single, unified and future-proofed business management platform to support business growth.

Helphire Group plc

Founded in 1992, Helphire Group plc is the market leader in the provision of accident management services to motorists involved in accidents, which were not their fault. Services provided include: provision of replacement hire vehicles, vehicle repair management, full claims handling assistance, uninsured loss recovery, personal injury management and intervention services.

Helphire employs over 1,300 people at sites across the UK and operates through a national branch network of 27 depots. It manages a fleet of over 7,000 vehicles, ranging from typical domestic models, sports, 4x4 & SUV and MPV to prestige marques and commercial vehicles.

In its last financial year (to June 2012) the company grossed £224.3m, managed over 129,000 hires and nearly 48,000 vehicle repairs.

Tim Bailey, Fleet Services Director at Helphire Group, takes up the story:

"First of all, we need a good tracking system that gives us an accurate picture of where our vehicles are at any one time. We need the information without having to rely on customers, staff or third parties keeping the system up-to-date. We then need a system that gives us a significant step forward in fleet management, alongside heightening our ability to control the fleet, tighten security and step up efficiency."

Total Accident Management, the Bath-based repair and claims management subsidiary of Helphire Group recently launched a real-time fleet management tool – Total Intelligence in partnership with Trak Global Solutions, the telematics supplier to the insurance and car rental industries – and also a **Bynx** telematics technology partner.

Mark Gainford, who is TrakGlobal's Sales and Marketing Director points out:

"To realise the full value of telematics you need to consider an integrated approach with other technology providers and back-office systems. Working together with **Bynx**, Helphire has been able to prevent issues such as information silos from developing, alongside improving the richness of information and depth of the solution."

Total Intelligence can be tailored according to the requirements of fleet operators - including monitoring driving behaviour, proactive management of accidents and identifying fraudulent activity.

The system has been designed to provide detailed information including:-

- Identifying incidents in "real time" – by alerting the fleet manager immediately when an incident has occurred and the severity of damage.
- Notification of repair completion, keeping vehicle downtime and associated costs to a minimum.
- Identifying when a vehicle has been stolen and quickly recover it.
- Collating data that can determine liability and protect fleets from fraudulent activity.
- Keep company car drivers safe and help businesses comply with the law and duty of care requirements.
- Reducing fuel fraud by checking fuel fills against business/private mileage expense claims.
- Reduce a business' carbon footprint and save money by monitoring mileage and driving performance of company car drivers.

The system also incorporates a number of features which enables fleet tracking and accurate measurement including driver behaviour scoring whilst technology includes Thatcham CAT 6 approved unit, Google mapping and odometer capture.

Bailey adds:

"Our funders are much happier because they can see that we are operating more efficiently, that we are reducing costs and wastage, dismissing fraud and retaining asset value. We use the data the system provides to measure our performance on a daily basis so we can see improvements. Specifically, we have greatly reduced our insurance costs and our fleet size by more than 200 vehicles, while still maintaining the same level of business. We are quite simply a better business all round."

bynxFLEET

bynxFLEET empowers customers, such as Helphire, BT Fleet, Alphabet, Leasedrive, StateFleet (Australia), KBC Autolease, UniTrans (South Africa) and Business Lease, to better manage the two most important elements of their businesses – vehicle assets and customers.

The product provides a business management platform, rules engine and set of applications covering every aspect of the vehicle management business – from procurement, contract, driver and financial management (including billing) through to vehicle disposal and remarketing. There are also applications for managing fines, fuel, accidents, licence, maintenance, prospects, quotations, short-term rental, terminations, tyres and workshops.

By purchasing the platform and rules engine, and then only applications that are required in each case, a system can be configured to meet each individual customer's needs. Many of the applications are standalone products in their own right but utilised as a complete **bynxFLEET** suite, they provide a powerful return, including:

- Better vehicle utilisation.
- More accurate billing and financial management.
- Compliance with government legislation and duty of care obligations.
- Removal or minimisation of risks associated with vehicle investment.
- Improved efficiency, productivity and reduced costs.
- Greater efficiency.
- Lower mileage and fuel costs/lower emissions.
- Increased customer satisfaction.
- Greater driver safety.
- Lower maintenance costs.

Telematics in fleet management

Telematics buying decisions need to be based on how the system extends beyond vehicle tracking and into enterprise management.

Today's telematics technology provides a way of controlling and organising vehicles and mobile workforces.

It is also helping to increase driver safety. Ascertaining drivers' whereabouts used to be carried out by calling them on their mobile phone - a practice that could compromise safety when driving.

However, when you run or operate a fleet, there is value in knowing where your vehicles are at any one time. Telematics enables the most efficient job dispatch and allows for better route optimisation, vehicle utilisation and lower overall fleet mileage. Some remote and mobile fleet telematics systems (such as TaskMaster from TBS – see page 10) can send customers a text message announcing ETA (estimated time of arrival), which is helping to increase customer service and satisfaction levels across the board.

A fleet telematics system basically provides managers or operators with cost-based information about their fleet. It is not restricted to size of fleet or timeframe.

Detailed mileage expense reports can be generated at the touch of a button and exported directly into company accounting and **bynxFLEET** Financials system. This also saves paperwork.

Recording accurate timesheets, so that billing is also correct and timely, is equally valuable. Fleet telematics can help prevent unnecessary journeys and stop drivers from taking longer routes.

But it's not just the telematics system that has value. The data it collects has value too.

Driver performance is a major influencer in fleet management operating costs and if driver behaviour can be monitored and changed, vehicles can be driven in a more efficient manner and costs reduced. This will result in lower fuel bills, emissions, maintenance costs and accidents (which will in turn reduce insurance costs), plus it will help to maintain higher residual values.

Today's telematics systems (such as those used in the insurance sector) offer CAN-bus integration, which tells you how a vehicle is being driven so that driver behaviour can be monitored. With fleet management, better driving can contribute to fuel savings as high as 15%. The system also helps with maintenance by flagging up current or potential engine problems or mechanical faults and keeping tabs on the vehicle's true condition.

Telematics technology enables fleet managers to make a clear distinction between business and private trips. Just by tapping the screen of the telematics system, drivers can register journeys as commutes to and from work and/or personal or business journeys. This data can be integrated with payroll, enabling much more accurate payment of travel expenses.

Keeping accurate timesheet records has been something of a challenge prior to telematics. Eliminating false timesheet and expenses claims and cutting unnecessary overtime can save money. Electronic records generated by telematics systems are hard to dispute. For a 60-strong fleet, cutting just an hour a week from exaggerated overtime claims can save around £100,000 a year.

Smart cities of the future

More than half of the world's population lives in cities and that percentage is growing. It seems our desire for country living has waned. According to research organisation McKinsey, in China alone 350m people (which is more than the population of the USA) will move to cities by 2030.

Living in rural areas in developed countries (such as the UK) can be desirable but in many countries, living in rural areas equates to living in poverty. This is true in China, Brazil and India where a coveted, middle-class, urban life can only be found in cities.

But the population is growing all over the world and in other countries, such as Sweden, UAE, Russia, South Korea and Portugal, new cities are being constructed from the ground up to attract talent, innovation and the economic growth it brings.

Building new cities is one thing but accommodating growing populations and ensuring cities are sustainable is another and it demands new thinking, new technologies and new ways for people to live, work and travel around.

The smart city

The definition of a smart city is (so far) one in which all parts of its infrastructure and government services are digitally connected and optimised to deliver higher quality citizen services, more efficiently and to affect changes in behaviour amongst government workers, businesses and citizens. The key characteristics of a smart city are smart economy, smart mobility, smart governance, smart environment, smart living and smart people.

The technology platform underpinning smart cities is powered by sensors, Cloud computing and smart telematics interfaces.

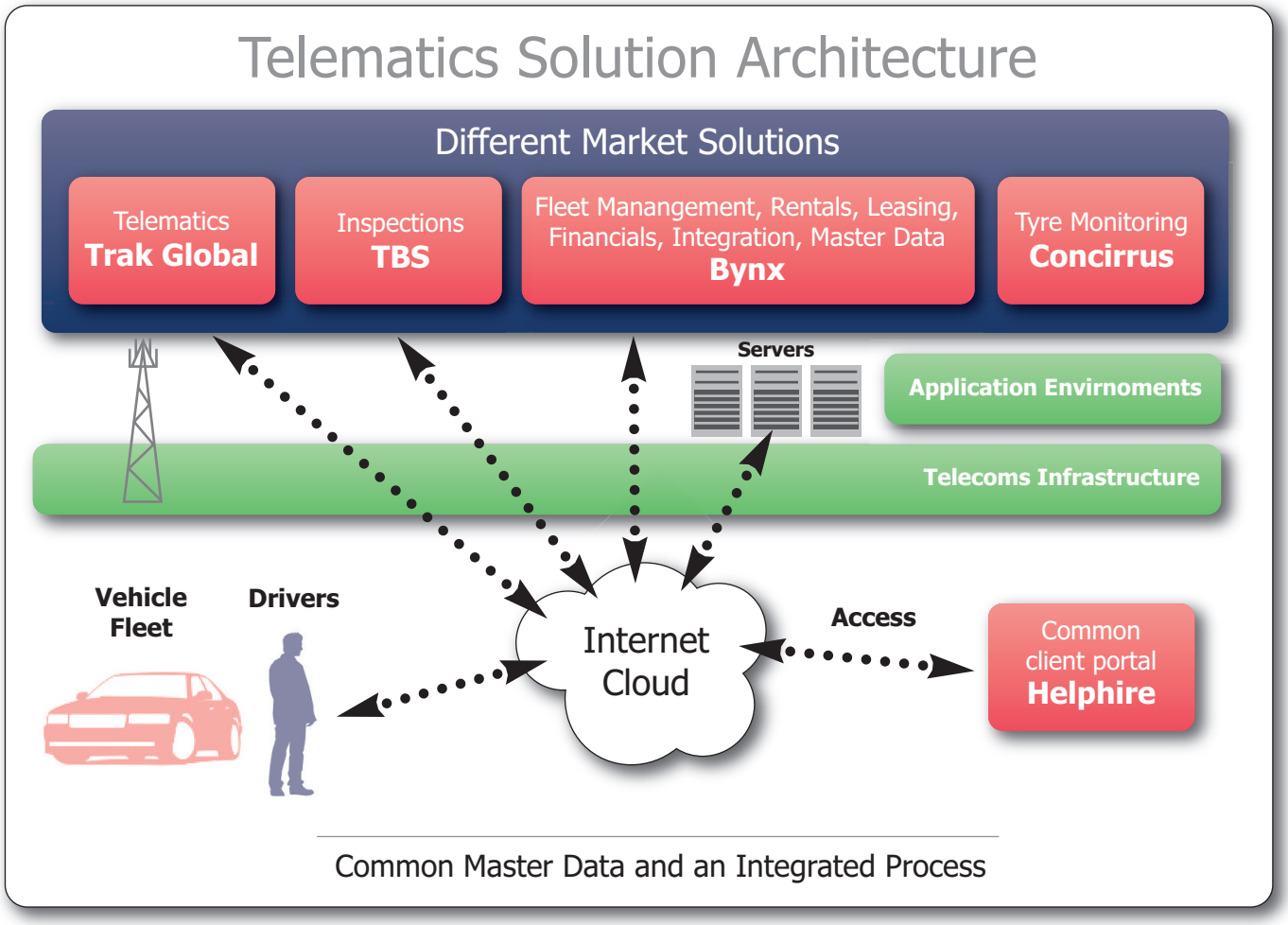
The wired city becomes the main development model and hub around which business, internet and lifestyle services, housing, mobile and fixed phones, satellite TVs, computer networks, e-commerce, grows.

Thanks to a distributed network of intelligent sensor nodes, a wide range of parameters can be measured for a more efficient management of the city and data that can be delivered wirelessly and in real-time to citizens or the appropriate authorities.

All communication-based technologies are mobilised in smart cities for maximising transport efficiently, reducing traffic delays, eliminating fuel waste and carbon emissions.

M2M Communications Platform

An elegant and functional fleet management telematics solution is comprised of several layers of technology from different vendors chosen for their specialism in a particular area. For example:



The back-end platform is **bynxFLEET**, which enables fleet managers, operators and any vehicle-based organisation to manage the whole lifecycle of all their vehicle assets.

At the front-end, there are different technologies (such as Trak Global's Rentrak or Concirrus' Tyre Pressure Monitoring) and applications that collect, store and send data collected from the vehicle. In the case of fleet management, there can also be a variety of handheld devices (Smartphones, tablet PCs, ruggedized units etc.) that are used to send, receive and communicate information from back-end systems and/or drivers and operators.

In between, there are a number of platforms and communications technologies that are interfaced, integrated and configured to enable the whole system and that, together, turn it into a functional and sophisticated M2M communication and vehicle management platform.

Sourcing all of the relevant technology from one supplier is virtually impossible presently but rather than having to acquire different technologies from several divergent suppliers and pull if all together in what would be a complex project management and implementation exercise, there are companies that can supply end-to-end systems on a turnkey basis.

Concirrus

Concirrus, a **Bynx** telematics partner, was formed to make it easier for customers to develop and deploy M2M solutions. It designs, builds and operates remote telemetry solutions that connect front and back-office fleet management systems, measure information and make it available to decision makers.

Concirrus offers a one-stop shop for all aspects of a solution – from hardware design, manufacturing and sourcing, connectivity provider selection and application building. The company will also operate the solution as a service making it even more accessible and affordable for any size fleet operation.

Andrew Yeoman, Founder of Concirrus, explains:

"The process that customers need to go through in order to acquire a complete M2M solution is complex. It involves building or buying hardware, writing, modifying and testing firmware, creating a mobile access point, selecting a mobile carrier and tariff, engineering a secure data hosting platform, writing applications, learning how to make it all work, developing interfaces into back-office enterprise systems and then supporting the system and all its inherent people and process changes.

It's too complicated and takes too long for today's vehicle-based businesses that need to be up and running with new systems and applications in a matter of days or weeks rather than months and years. We've taken on all of the complexity and deliver our customers straight-forward and valuable solutions that we can also operate as a service for them, thus making the whole process quick and easy."

Tyre Pressure Monitoring Solutions (TPMS)

Concirrus has also developed a state-of-the-art tyre pressure monitoring solution to enable fleet managers to decrease fuel costs and tyre wear while increasing safety. It is available as a standalone, in cab solution or through telematics providers.

The way the system works is that sensors are fitted onto the vehicle's tyre valve system, which can take less than 15 minutes for a four-wheel vehicle. The wheel assembly stays in tact and no specialist skills or tools are required to complete the task.

In Cab Monitoring

Tyre pressure is monitored using Concirrus' PressurePro monitor. The system alerts the driver to under-inflation and overheating, which are both signs of impending problems. The system also allows each wheel to be programmed separately.

Via a telematics Vendor

Many telematics vendors have now integrated the PressurePro system into their hardware. Alerts can be provided on the telematics in cab screen and each month Concirrus is adding more and more to its list of supported vendors. The telematics operator can configure the system to send alerts to the cab or back-office system as required.

There are currently around eight million PressurePro sensors deployed in over one million vehicles globally.

Enterprise Mobility - the front-end and devices

TBS Enterprise Mobility, a **Bynx** telematics partner, offers a host of solutions for information and workforce management. The system intelligently marries the power and functionality of mobile devices, telematics solutions with back-end vehicle management systems such as **bynxFLEET**. Under the brand name of TBS Enterprise Mobility, the company has earned a strong reputation within the fleet and automotive sectors with its award-winning product TaskMaster. TaskMaster can be used for:

- Advanced damage input via vehicle diagrams.
- Vehicle damage assessment.
- Vehicle identification.
- Automatic image capture.
- Damage report printing.
- Damage cost calculation.
- Signature capture.

In addition, TaskMaster can be integrated into satellite navigation to enable field workers to be automatically directed to a new job via the optimum route, thus reducing time wastage and fuel costs. Traffic news can also be triggered and this can enable operators to keep their customers up-to-date and informed of ETA (estimated time of arrival).

Cameras on devices help to give vehicle inspection an extra level of detail by clearly illustrating condition, while structured pick lists enforce inspection guidelines.

Jon Poynton, TBS Commercial Director, takes up the story:

"Fleet management today is all about efficiency and that comes from implementing positive workflow management policies and technologies. Mobile devices can be powerful tools in such scenarios but without the basis of real-time quality information flows from systems such as ours, their usefulness is diminished. The TaskMaster product range offers a seamless mobile, tablet or laptop gateway into any enterprise system, such as **bynxFLEET**, and this gives fieldworkers comprehensive access to information while they are mobile.

But for businesses that operate fleets, there is also the issue of enhancing the customer experience in the most efficient way possible and that can only be done if they have a clear map at any given time of the precise location of their assets and field operators."

TaskMaster Mobile Suite

Offers payback for fleets in terms of its ability to manage the workflow of the delivery, collection and inspection process for hire and de-fleet. The condition of a vehicle can be accurately assessed and logged at hand-over. This enables fair and accurate billing for damages while taking into account fair-wear-and-tear standards. Payback also comes from enhanced customer service as TaskMaster allows delivery drivers to be monitored (as to location) via GPS tracking contained in either their handheld (such as a smartphone) or in-vehicle device.

TM Management Console

The TaskMaster management console is a live dashboard enabling the transparent and real-time management of fieldworkers. It enables operators to monitor the workforce, efficiently and transparently. Supervisors can conduct real-time activities and perform diagnostic checks. Users can also view live jobs, track SLAs and filter views based on location. The dashboard enables:

- Dynamic mapping and fieldworker monitoring.
- Management of fieldworkers, assets and workloads.
- Management of customer expectations.
- Exception management.

TM Exporter

The TaskMaster Exporter is designed for businesses needing to build an asset register that organises historical data. It simplifies processes and ensures data quality.

TM Studio

This product enables organisations to produce easy to follow workflows for complex business processes and manage them remotely. Changes made to workflows and user profiles can be quickly deployed giving flexibility and real-time control of best practice.

The business case for telematics

Software is a major investment for the automotive industry and operators need to be sure they choose a solution that will enable them to:

- Cut costs.
- Increase efficiency.
- Increase productivity.
- Control assets.
- Retain asset value.
- Offer better vehicle utilisation.
- Enhance security, safety and the customer experience.

A system should also enable customers to be faster to market with new products, services and applications - designed specifically for their customers and that their customers will take on board.

Reliability – when a technology becomes so integral to a company's operations, it must be reliable. In the case of telematics, reliability comes from having a sound technology infrastructure, telecommunications support and resilient back-up.

Cost and ROI – overall cost, not just capital investment but cost of implementation, integration, configuration, bespoke system programming, user training and all other tweaks, must be taken into consideration alongside how long payback will take.

International markets

Brazil, Russia, India and China are shaping up as new markets for navigation systems and telematics services – despite the recent recession (or threat of a new one). This is due largely to surging economic growth, the rise of the middle classes and growing demand for private car ownership or car 'user-ship' in these countries.

The vehicle telematics markets in China and India are described as immature and in Russia, adolescent. In China, the biggest market for vehicle tracking is in Taxis. China and India rely very much on telematics-based fleet management services. Auto theft is a greater influencer in Russia where car crime is high. In the early 1990s, the annual theft rate for vehicles in Russia was almost 150,000. This has created a new demand for telematics solutions such as GPS tracking and immobilisers.

In China and India, things are different where mobile phone infrastructures that can support 3G and 4G have been built out at the same rate as the Smartphone market has taken off.

MENA

The MENA region is interesting. Some parts (such as the UAE) are wealthy, prosperous and have experienced promising growth in the automotive sector while others are experiencing economic hardship and even conflict. The avid welcoming and roll out of new technologies in prosperous regions, bolstered by government support, creates an unprecedented opportunity for telematics providers that can develop and launch applications specific to the economic, cultural and legislative demands within those regions.

The UAE is renowned for its shopping mall 'experiences' with some of the largest and most flamboyant in the world. Car rental is also a favourite in the region with citizens and tourists. Thrifty Car Rental UAE (a franchise of Dollar Thrifty Automotive Group Inc.) has increased its businesses in shopping malls by 700% over the last five years helped not least by an intelligent deployment of telematics technology.

Japan

Japan's increased demand for safety and security saw the introduction of HELPNET services.

Japan's government showed support for telematics by mandating the creation of the Vehicle Information and Communications System (VICS) in 1996. Using Frequency Modulation technology (a multiplex broadcast system using radio and infra-red beacons), it enables car navigation systems and users to access and view real-time traffic and routing information on their navigation screens.

The Japanese market embraced navigation systems in the 'mid-noughties' following 20 years in development in which the speed of communication climbed from 9,600bps to 2.4MB (or 2.4 million bps).

South East Asia

In Taiwan, Yulon Motor Company (which assembles Nissan vehicles) introduced TOBE Telematic service in 2002. In addition to news, weather and traffic information, the system provided speed warnings, emergency assistance, anti-theft and car location in the event of a theft.

Taiwan has one of the highest per square kilometre populations of automobiles in the world (241 vehicles per square kilometre). It also has a high density of mobile phone usage, of which 91% are post-paid subscribers comfortable with the idea of monthly subscription models.

South East Asia used to be a telematics backwater but not anymore. Despite being home to over 600 million people, South East Asia is a hard market in which to forge meaningful commercial services because of its low incomes, poor road networks, substandard telecommunications and geopolitical fragmentation. But many of the region's 11 countries are advancing economically and a growing number of international companies are starting to take an interest.

Asia is expected to have around 65% of the global mobile subscriber market (around seven billion people) by 2015.

In February 2012, Thailand became the first country outside of Japan in which Toyota launched SMART G-BOOK, a telematics application for Smartphones that provides route guidance based on traffic information and destination setting. It also enables user-requested emergency assistance.

Also in February 2012, Proton, Malaysia's national carmaker, partnered with a technology provider to bring 4G connectivity to its vehicles. Up to five devices will be given internet access through the car's hotspot and plans are underway to enhance the offering with a range of telematics features such as remote vehicle diagnostics, security and location-based services.

At the Bangkok International Motor Show this year (2012), Alpine Electronics showcased the world's first in-car infotainment unit using a smartphone tethering technology, MirrorLink, developed by the Nokia-lead Car Connectivity Consortium.

Honda began a trial this year in Indonesia of a new generation of traffic information technology that strives to minimise congestion by encouraging drivers to drive more smoothly as opposed to merely providing alerts to potential jams.

There has to be Government backing for any advancement in telematics in these markets. Malaysia, for example, where car theft is on the rise, is a perfect market for vehicle tracking and recovery solutions.

Indonesia has a population in excess of 240 million and is Asia's most popular single market but this includes 17,000 islands and road transport heavily supplemented by boats. Being one of the poorer countries in the region, it also lacks basic infrastructure. It doesn't have enough roads to contain its formidable traffic nor a central registry of car plates. Jakarta (its capital city) is one of the most congested in the world and any investment in traffic control technology would be up against the fact that, with very few roads, there is nowhere for cars to go.

Thailand, although the region's car manufacturing hub, is still struggling with the low speeds of 3G network wireless technology which was only just introduced in 2011.

Also, in many regions of the world, mapping quality and technology is not that advanced or indeed accurate to support any serious commercial applications. In many parts of South East Asia, such as Indonesia, there is no standardisation for addresses, which makes navigation difficult.

Frost and Sullivan forecasts that transport and logistics markets in Asia Pacific are set to grow annually by 7.6% and reach $4.09 trillion by 2016. Total shipments of personal navigation systems (PNDs) will grow in Thailand, Malaysia, Singapore and Indonesia from 443,000 units in 2010 to almost 1.8 million in 2015. But Smartphone-based systems are set to far outnumber PNDs in the future.

Australia
The Australian Telematics Services Hub (ATSH) set out to create a standard platform for content providers, auto manufacturers and system builders.

Brazil
Brazil's vehicle market has seen an annual growth rate of 9% over the last three years.

In Brazil, commercial telematics has become a hot technology. In November 2011, there were almost 1 million vehicles tracked with commercial telematics systems to prevent theft. Other commercial systems in the country include high-speed vehicle identification.

Consumer-type infotainment telematics systems in Brazil are still several years away, due largely to the fact that mobile network coverage is still patchy - even in urban areas.

China
The rise of the middle classes and growing population in China means that more people actually drive and own cars than ever before. In 2007, China accounted for 14% of the world's vehicle sales. In 2008, China became the world's second largest (after Japan) producer of cars. In 2009, China's grab of the world's vehicle sales had climbed to 21%.

China represents the largest single-market opportunity in telematics.

Russia
In Russia, mobile navigation is leading telematics expansion but the platform of choice is the Smartphone. Sales of navigation systems are growing 247% annually (Frost & Sullivan). In 2007, PNDs (Personal Navigation Devices) accounted for 80% of overall navigation system sales but a year later, Smartphones accounted for 70%.

One of the challenges in Russia is its lack of digital mapping, which currently only covers major metropolitan areas such as Moscow and St Petersburg. Until this problem is solved it makes it unattractive for OEMs and technology partners to truly invest in new telematics technology. But the market in Russia has been given a boost by the launch of the ERA GLONASS satellite (the third generation of the GLONASS fleet of satellites) and this has boosted navigation services and supplemented reliance solely on GPS.

South Africa
South Africa's telematics market is being spearheaded by a growing interest in insurance telematics solutions. The continent has sophisticated vehicle tracing companies that already collect the kind of data on which insurance telematics relies. The SA market for stolen vehicle recovery and fleet management services is in line with Europe and the USA. Penetration levels are high and products and services sophisticated. Creating an add-on service for insurance companies on the basis of this already established database is an attractive proposition.
SA drivers have high accident rates and insurance companies are eager to seek competitive advantage.

Services currently available in SA consist of stolen vehicle recovery but other telematics-based insurance services have been introduced that monitor driver performance and give a rating, which insurers can use to offer flexible personalised premiums.

Conclusion

The challenge is to unlock the value of telematics for users by coming up with desirable applications that end users will want and that they can benefit from - like automatic emergency call, assistance, concierge services, access control, dynamic navigation, traffic information, location-based services, news, weather, stock information, mobile internet, mobile office, on-demand content, audio, video, games.

But of course many of these offerings (such as those classified as infotainment, mobile office and email) can only be used in car parks or by passengers in a vehicle and not by the driver when on the move. There are already grave safety concerns around the use of mobile phones and navigation systems, which has to be borne in mind with new telematics applications. But the beauty of technology is that solutions can be rules-based so that only certain functions can be used while mobile and others blocked until the vehicle is parked.

The next-generation of telematics will appear above the dashboard and with the development and adoption of an automotive operating system, a bundle of standards and software that will enable drivers to plug-and-play new applications and gizmos into their vehicles, many in the automotive industry are hoping it will give car manufacturers and their partners a brighter future.