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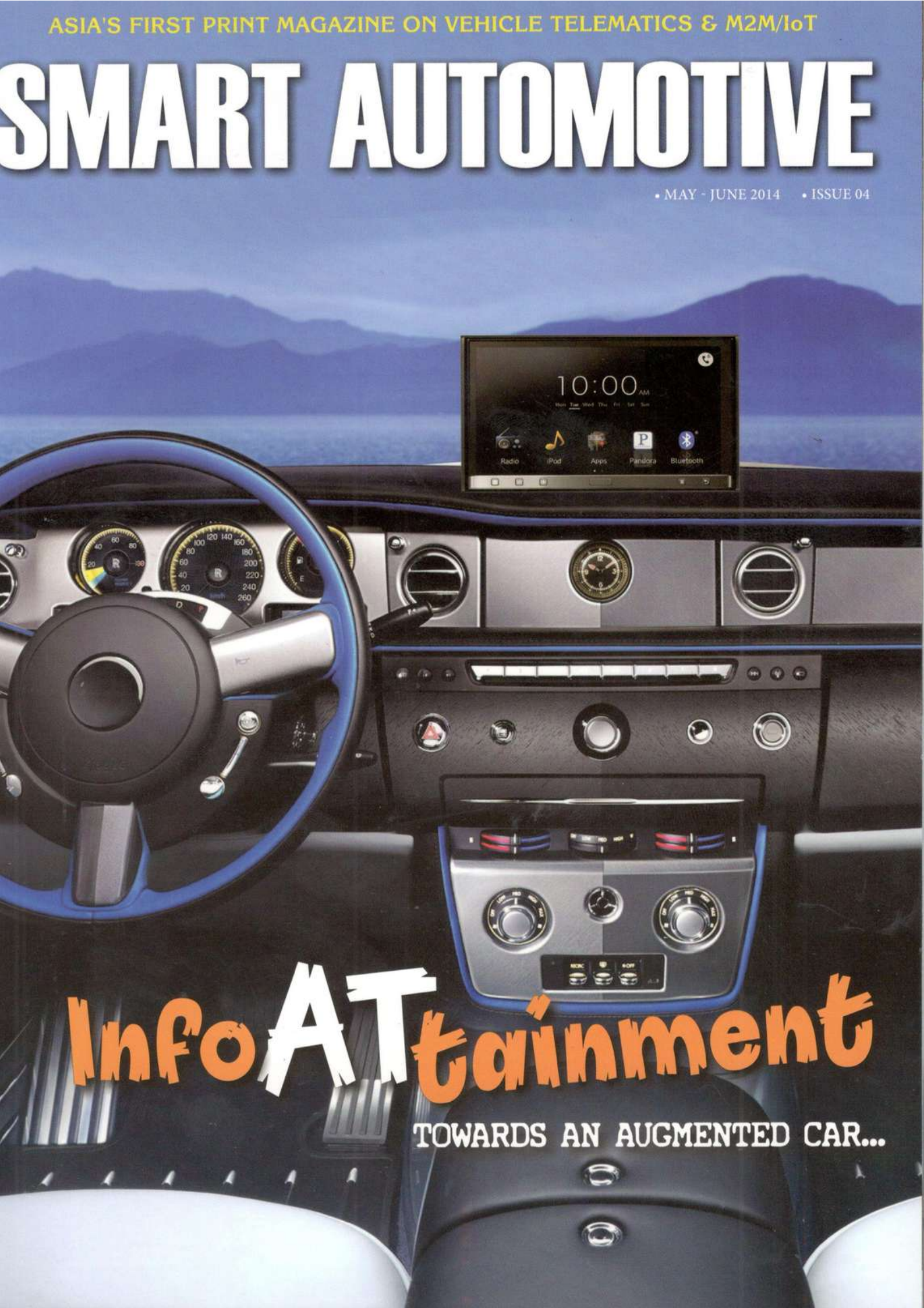
SMART AUTOMOTIVE

• MAY - JUNE 2014 • ISSUE 04



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Parameters	Description
GSM Module	Dual/Quad Band GSM 900Mhz, DCS 1800Mhz GPRS: class10
GPS Module	66 acquisition-/ 22 tracking channels, Ultra high tracking/navigation sensitivity: -165dBm1
Antennas	GSM-GPS Internal Antenna
Communication Interface	TCP/IP on GPRS.
Record Storage/Buffer	21000 Tracking Records.
Ports	1-USB Device type, 2 Analog I/O and 4 Digital I/O, 1 Rs232 port (multiplexed),1 Voice channel
Speed Sensor	Real time(optional), GPS(default)
LED Indication	Processing, GSM, GPS, USB Detection
Connectors	20 Pin power mate connector
Power Supply	Wide DC input voltage range (9V - 32V),
Internal Battery	1500mah, 5 to 8 Hr backup,
Enclosure	ABS Plastic Casing
Temperature	Operating: -10°C to +55°C Storage: -10°C to +85°C
Dimension (mm x mm x mm)	106 L x 74 W x 30 H in mm
Weight	165 grams

U101

Parameters	Description
GSM Module	Dual/Quad Band GSM 900Mhz, DCS 1800Mhz GPRS: class10
GPS Module	66 acquisition-/ 22 tracking channels, Ultra high tracking/navigation sensitivity: -165dBm1
Antennas	GSM-GPS Internal Antenna
Communication Interface	TCP/IP on GPRS.
Record Storage/Buffer	21000 Tracking Records.
Ports	1-USB Device type, 1 Analog I/O and 2 Digital I/O
Speed Sensor	Real time(optional), GPS(default)
LED Indication	Processing, GSM, GPS, USB Detection
Connectors	6 Pin power mate connector
Power Supply	Wide DC input voltage range (9V - 32V),
Internal Battery	1500mah, 5 to 8 Hr backup,
Enclosure	ABS Plastic Casing IP67
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Towards info-attainment

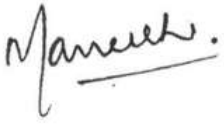
Maneesh Prasad

In this May-June 2014 issue of Smart Automotive we requested authors from all the geographies to share their views and articles. Thanks to the vehicle telematics community, we received an encouraging response and an excellent editorial contribution. Usage and applications may be influenced by regional ecosystem, but the domain understanding includes what is happening across the world. We hope that our efforts would make some contribution in sensitizing the regional automotive ecosystem on various thematic issues which we will take up along our way.

It's fun to go on the long drive with a good music playing and supportive weather to let you roll down the window. Audio entertainment, which primarily has been engaging us through most the last century, is now seen giving way to visual assistance and also lending a helping hand to the 'info'.

The benefit of infotainment and the value derived for commercial and personal vehicle may vary. The community must be wondering about which one will be the killer application like - Can it help reduce driver fatigue through quality entertainment via Internet Radio? Connecting to his local radio station thousands of miles away may make him feel at home. Can this be mixed with some in-cab coaching on driving habits and driver behaviour based 'guidance'? Can this help in controlling the road accident?

If we take the segment of logistics and transport, the problem associated with commercial vehicle drivers is quite complex. They carry goods worth millions, but they are little aware of truck safety requirement or parking safety requirement etc. They seldom have skill enhancement or made to go through refresher programme on driving habits or best practices. Can the 'info' part sensitize the drivers about these and yes, without creating an offending perception that they are being trained.



Editorial

HYBRID APPROACH FOR

Creating Infotainment Applications

"We need to break the dominating patterns and have a hybrid approach to in-car applications."

Regardless of the solution, the trajectory is evident – apps will enter your car, whether they are provided by a smart device or the vehicle's IVI system itself. From my view, the key question is: what is the best way to create value with in-car apps? I believe we need to break the dominating patterns and have a hybrid approach to in-car applications.

Hybrid Approach, Step 1 – Head unit or smartphones?

Nowadays, I consume music from streaming services, but I also listen to FM radio while I'm driving. For 'my own' music it doesn't really matter where the actual music files are, as long as they are always available to me and do not increase my monthly phone bill. I do not need to own the music files. Same applies of course for public information, such as the news.

When I drive, I tend to rely on off-line navigation solutions. For me, it is important that the directions are available and do not depend on the mobile network or on my smartphone or any other device. For me as a driver, navigation is as critical in the vehicle as for example the climate controls and lights.

Music and news is not really personal data and basic navigation is a critical system related to driving. These kinds of functions are something that I would like to have in the head unit of my own car.

When it comes to personal data such as user accounts, contacts, messages or agenda, I do care where that information is stored and I do want it to be safe.

This is where we need to rely on personal devices, such as smartphones, wearable or glasses; because I want to be available and get information also when I am driving. I also want all this to be overly simple to use in the car. If I need to browse a hierarchical menu for a minute before I access the desired information, I usually don't bother to do so. This is even more critical for the driving related functions! Sometimes hard keys are way better than fancy HMI's on a big display. Usability first – this is the humble wish of consumers.

To sum up, let's keep the public information and critical vehicle related things in the car and not dependent on the smartphone. Especially in car sharing and rental cars you should really have these functions available without the need to connect any other device with the vehicle. When it comes to personal data, rely on personal devices. The concern of syncing your personal data with a rental vehicle by accident should be removed, but making it possible to enjoy a personalized driving experience also in rental cars. Who of you have thought twice when the IVI system of a rental car asks to access your phone book on your phone? I have. But I still would like to access my contacts and music streaming services as long as I know this all comes from my personal device and nothing would be stored in the car.

Hybrid Approach, Step 2 – Is it an app or a platform?

Having some apps running on head unit or a mobile device is not yet enough to be called a true hybrid solution and creating great user experience. The majority of today's available in-car apps are unfortunately copying the smartphone apps concept. The issue here is the difference in the user's environment. People use their smartphones with one or usually two hands while their eyes are locked on the smartphone screen. The phone lies steadily in their hand, usually without shaking much, so you can make very precise gestures to control the smartphone. Switching from one application to another is done quickly. All your focus is on the smartphone. This is also how smartphone apps are designed to be used.

They do not account for situations when the focus is on driving and you

Timo Salminen
Head of Automotive
Ixonos plc
Ulm, Germany

Timo has over 15 years of experience in mobile device and automotive software industry and a deep passion for In-vehicle Infotainment. He is currently heading the automotive business area at Ixonos wherein he is responsible for the whole business including asset and service development as well as sales and customers. His work consists mainly of strategic business planning and development as well as sales and execution.

can't stare your gadget, when the car causes some vibration and making operating a touch screen difficult or operating the app with a rotary knob. Still, we see the infotainment industry copying too much from mobile devices into the cars. Sure, the HMI's of current in-car apps are much more driver friendly than the mobile versions, but does the whole idea of tens of apps bring the best value for the drivers? No. Forget the model of having one app for one use case and think wider.

In cars, we need to make it super easy and convenient for the driver (those not driving, can use their smart devices as usual) to access the desired information and perform functions. This can be achieved by creating new kinds of in-car applications, which combine information of different sources under one HMI. For example, why do we need to have a separate media player for our iPods, smartphones, CD/DVDs, SD Cards or HDDs? Why do we need separate applications for Glympse, fuel prices, parking information, locating my friends etc. when this all could be available on a one single map? Why do we need to switch between different applications just to hear the latest messages, tweets, feeds or posts from our loved ones?

This brings us to the question, whether future in-car apps are really apps as we understand them? Or will they closer to a platform? Perhaps a mindset change is needed. Our industry needs to fulfill the driver's needs for infotainment in a way that increases significantly the user experience and safety. In many of the conferences I have been to, people have questioned e.g. the need for using Facebook while driving.

Yet, Facebook is one of the most used applications in cars globally! The problem to be solved is how to fulfill this need in a safe and more convenient way; one that does not require pulling your phone out of your pocket while you are driving. What I see is a clear need for just a few in-car applications, which would serve many use cases and provide information from many sources through one HMI. Trends and services come and go and these 'in-car application platforms' must be ready to adapt and integrate new information and functions in their basic HMIs. This is how I understand a true hybrid approach.

Hybrid Approach, Step 3 - What really matters?

All of us human are different. I happen to be a believer of personalized driving and infotainment experience. I sometimes drive very long distances and sometimes I just to the gym. Sometimes I drive with my family, sometimes alone. In Finland, I hardly end-up in a traffic jam. In Germany it is not at all unusual. The different situations and trips create different needs and expectations. As a driver and consumer, I have different key values for each situation. In the end, what really matters in in-car applications is value; the value for the driver as well as value for the stakeholders like car OEMs, retailers and service providers. If an in-car app or one of its functions is not providing a good user experience and fulfilling the consumer need, it will not be used. I for example, configured in my current car's news reader an RSS feed to retrieve news from Finland in English. The reason is that the car's text-to-speech engine supports English. It would be fine for me, but there are two things that prevent me of using this in my car. First, it takes too much time and too many clicks to reach the function. Second, the text-to-speech quality is not good enough. In principle the feature is nice to have, but delivered with a bad experience it brings no value for me as the driver.

I have different key values for each situation. In the end, what really matters in in-car applications is value; the value for the driver as well as value for the stakeholders like car OEMs

What I would like is to have personalized information consisting of news, messages, tweets and feeds available within one HMI with a Media Player kind of experience. I would also like to have Glympse integrated into my map so that I can send a Glympse to the friends nearby at the same time as I enter the destination. I want to be able to do this also in the future when there might be other solutions than Glympse. I find that this would bring me value as a driver – quickly accessing things I find important while allowing me to focus on driving.

But this is still not enough. I would love to create all kinds of cool concepts with unlimited resources and without the need to make profitable business at the same time – just to make the users happy! But that is not too realistic. We need to capture the business value for the key stakeholders. This is where things become more complicated, but on the other hand this offers great opportunities as well. Selling in-car apps will not be a big business in the form it has today. In-app purchases for future in-car apps (or platforms?) could work. Still, the revenue of in-app purchases will probably not be enough to land the value for all the interest groups.

We need to find ways to either reduce costs or increase revenues with the help of in-car applications, and especially the huge mass of data behind them. Could we find a way to handle re-calls more efficiently? Could we perhaps get data to reduce re-calls in future? Could we find a new way to keep consumers loyal? Could we prevent accidents and save lives? The possibilities are nearly unlimited.

To discover the true value of in-car apps requires not only a hybrid approach, but also thinking out of the box. First we need to stop following the mobile industry; this is an industry of its own.

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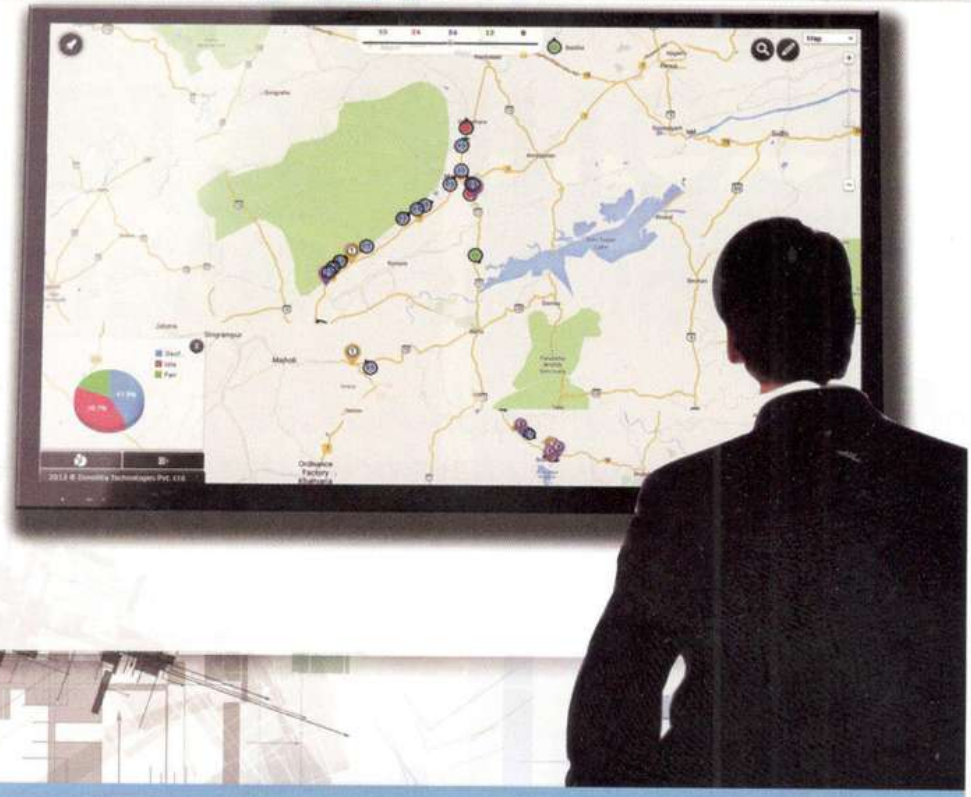

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OEM's PERSPECTIVE

CONNECTED CARS

What it is? What it isn't?

As the engineer responsible for this particular area at Bentley Motors, it's fair to say that I have been absorbed into this world, and find it no stranger a concept than using circular wheels or having a roof to keep the rain out (an important feature).

Connected cars, along with alternative power sources and driver assistance is one of the key topics of automotive development of this era. As the engineer responsible for this particular area of infotainment at Bentley Motors, it's fair to say that I have been absorbed into this world, and find it no stranger a concept than using circular wheels or having a roof to keep the rain out (an important feature in the UK)

But to many people, even within the major automotive OEMs, this is an arena of confusion and of uncertainty; of new challenges, unknown outcomes and the ever-present questions of what and why - what does a connected car give to the customer, and why do we need it?

This seemingly simple question of 'why' drives directly to the crux of the matter. In our everyday lives, we use iPhones and iPads and their Android based equivalents constantly, to shop, navigate, entertain, reference, book a holiday or share a picture, connect with friends and family and to carry our office around the world with us. To think of a world before this mass permeation of the Internet, may be only 20 years ago, is to consider a period in history about as relevant to today as ancient Rome. The world moved on, technology allowing humanity to progress exponentially once again. So how could this lifestyle stop at the moment you enter you car?

The question of 'why a Connected Car' becomes not so much 'why?', but 'why on earth not?'

The navigation and media systems are poised to benefit enormously - think not of connectivity as a revolution in these fields, but as a huge enhancement. Real time media streaming, song tagging,

Source: Bentley Motors

connections to iTunes, Google Play, any number of Internet radio stations, streaming services or Youtube possible. POIs (points of interest) that are sourced from the Internet, Google maps, the ability to switch a destination from the Internet to the integrated navi system of the vehicle HMI. The potential to integrate social media and retail is where the revolution occurs.

But also consider the safety and security aspects - eCall and ERA GLONASS systems truly are a revolution in safety that will save countless lives, and in my opinion will become a must-have feature akin to airbags and seat-belts. Vehicle tracker systems can be enhanced, diagnostic capability increased to prevent unnecessary trips to the dealer service centre. But behind the scenes, we must consider the practical challenges of implementing this new world.

Sole responsibility of development no longer falls onto the shoulders of electrical engineering departments. There is now a requirement for support and collaboration from marketing, IT and after sales departments, not to mention the new responsibilities that data protection and e-commerce bring in terms of legality. Purchase teams no longer buy solely from established automotive-grade hardware suppliers, but from 3rd party content suppliers, start-up app developers and MNOs. Diagnostic authors must consider the entire chain of HW, SW, SIM, network coverage, IT backend and user activation/payment. Dealers must be trained to sell the feature, and to service it in the field.

Moving back to the development side, the HW and SW has to be tested and validated not only locally, but in conjunction with the IT backend that supports it. This in turn has been specified largely by marketing processes, which in turn have been informed by the available technology from electrical engineers. Every department in some way or other is reliant on every other department making a truly cross-functional collaboration.

David Turner
Infotainment Engineer
Bentley Motors
Crewe, United Kingdom

David is highly experienced in the Production, Marketing and after sales departments and represents Bentley at group-wide working and decision making forums. He is currently working across the entire spectrum of Connected Cars with expertise in bCall, eCall, ERA GLONASS, Car2X, WAPI, 3G & LTE/4G communications.

When specifying the vehicle MMI and HMI, engineers have several new challenges regarding the areas of user device compatibility, embedded SIMs, operating systems, and flexibility related to strategy. So for example, where an LTE chipset is included, a decision must be made as to which market regions and MNOs to support, due to the veritable smorgasbord of LTE 'standards' rolling out across the world today. Also a connected car strategy that relies on a handset to run apps or provide the data connection will require a degree of flexibility to future proof against new handsets, operating systems, and connectors (remember the intro of Apple Lightning?).

We must also assume that the development of features available as part of a connected car system will be over a shorter duration than those of traditional automotive projects - after all, the mobile world develops apps and operating systems at a rapid pace. The net effect of this expeditiousness to the MMI/HMI developer is that he or she must be prepared to add or delete features over the lifecycle of a vehicle - this again requires flexibility in the HW, and also the HMI state charts.

We then arrive at the question of content - should the vehicle provide only journey-related online services, such as navigation and diagnostics, or should it bring social media and entertainment services into the car? In some cases, these two spheres are being blurred - look at the Renault Clio that can play different engine sounds through the speakers - a service related to the actual activity occurring in the engine, but processed and played back to the customer as entertainment in the form of a number of different vehicle soundtracks through the speakers. On top of this conundrum is the social media question in itself. What if an OEM spends a considerable sum of money to integrate Facebook or Twitter into the car, only for them to lose popularity to MySpace? The infotainment strategy must again adapt itself to this fluid environment that is dictated largely by the outside world.

Another hot topic for 2014 has been the emergence of Apple CarPlay and Google Automotive Link as contenders for the heart of vehicle infotainment. Personally I don't see these systems being contenders to OEM infotainment as such, as the vehicle manufacturer can quite easily shut them out of the industry by refusing them a way in to the vehicle architecture and general design. But the fact is that customers will want Apple and Google in their cars, because they are familiar with the brands from the consumer electronics world. So the more realistic situation in my opinion is a compromise, whereby Apple and Google systems are designed to run on the same MMI as, and complement the OEM offering.

I must state however that I don't believe this to be VHS versus Betamax situation as some are touting it, with a clear winner that becomes the standard technology. More of a Coca-Cola and Pepsi dynamic, with two huge brands co-existing within the market, with the customer's preference being the only deciding factor between them.

It also has to be remembered that the OEM has extensive experience in navigation, automotive quality, and HMI that neither of the Silicon Valley giants yet possess. For example, with stricter driver distraction laws getting ever closer in the major markets, the benefit of a connected system that is integrated into familiar vehicle HMI is clear to see. And of course, if everyone uses CarPlay and GAL in the future, then what individuality remains for the OEM? Imagine if every car in production only had a choice of 2 different engines, chassis or interiors - there would be no difference between brands, and therefore less consumer choice.

Strategically, we must now understand how to offer a product to the customer globally, where different technical, legal and commercial challenges exist. A customer in the USA for example will have very different preferences for online services than one in Japan. There is currently no global MNO solution available. In China, for instance, there is basically a choice between only China Unicom and China Mobile. I believe that the brands that win the battle for the connected car will be the ones that understand these challenges, and quickly adapt their business models, operations and strategies to exploit this new opportunity. They must also accept the long term nature of the required strategies, and produce IT backends with enough flexibility to cope with future advances.

Adaptability and flexibility are key to the connected car in many ways - from the engineer, to the MNO, to the IT and marketing departments, and finally to the most important piece of the entire chain - the customer. We as OEMs, must deliver a system to our customers that allows them to experience the flexibility and customisation that the smartphone, tablet and laptop does, in essence to make the vehicle part of the existing digital lifestyle.

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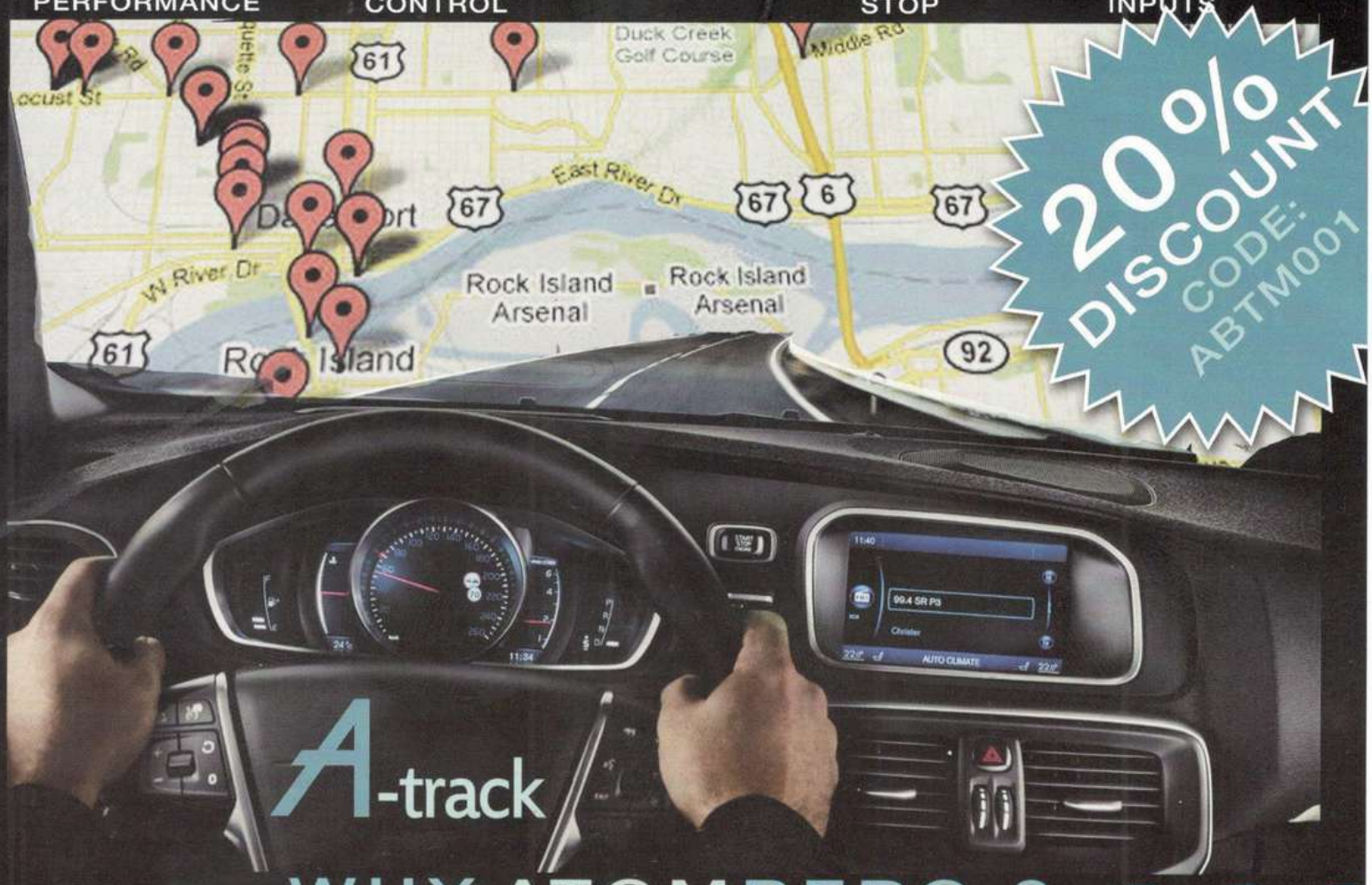

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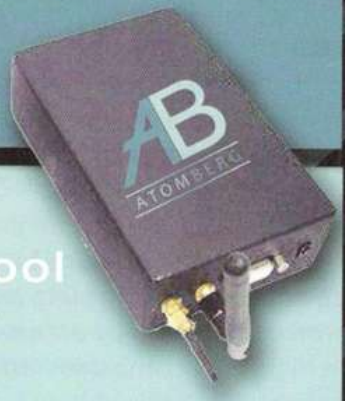

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Status quo under fire

The current state of INFOTAINMENT

a discussion with Andy Gryc of CX3 Marketing

> "The public is finally becoming aware of infotainment as something beyond a "GPS", and this is becoming a factor in purchase decisions."

What influenced you to join the entrepreneurial bandwagon?

I saw a big unfulfilled need. My co-founder Nancy Young and I worked the majority of our careers in high-tech companies, and we consistently noticed how marketing folks and engineers speak a different language. And how companies have a tough time finding people who really know the two disciplines? So we created a company that is built on 30 years in engineering and 25 years in marketing—and our passion for clear communication between the two. Automotive is a focus for us as we've had a great deal of experience in that space.

What are your views on the current market status of infotainment and automotive apps?

The automotive industry is clearly on the edge of a revolution. The public is finally becoming aware of infotainment as something beyond a "GPS", and this is becoming a factor in purchase decisions. All the OEMs are executing a strategy to bring apps to the car, and a burgeoning number of start-ups and established non-auto players want in. Smartphone players have gone from a toe in the water to diving in head-first.

OEMs will be challenged to differentiate their infotainment offerings and maintain their brand. Tier1-2 suppliers will be challenged to pursue new business opportunities and evolve, or risk

being marginalized. Smartphone makers will be challenged to accept liability risks and app makers will be challenged to develop safe apps. The industry is being shaken and consumers stand to benefit from it.

In your opinion, what is the key to a novel UI/UX design for in-car infotainment systems? How helpful have ADOBE AIR and OpenGL been for the same?

I don't think design novelty in infotainment systems is the problem. Creating a UX that considers human-factor issues while not contributing to driver distraction is. The interfaces need to be simpler than most currently are; this actually drives less novelty.

People prefer not to learn brand new interfaces unless necessary. The "smartphone invasion" is happening because people prefer that their cars and phones work the same. Making this possible without making the system unsafe is the challenge that must be solved.

Adobe Air and OpenGL are enabling technologies—the user shouldn't be able to tell what tool is used to create a UX. But they both have had important contributions to the field of automotive UX design. Adobe Air was the first tool that made people realize that the workflow between the HMI designers and the final embedded system required streamlining. Despite Adobe Air being overtaken by the HTML5 wave, it was the first tool to allow designers to directly create better user interfaces. And prior to OpenGL ES being adopted across the industry, the developer was reliant on the silicon vendor to provide proprietary graphic libraries. For the most part, OpenGL unshackles developers, tools and frameworks from GPU selection.

HTML5 is often considered as 'THE' solution for automotive app development. Is this assertion in sync with the car OEMs and 3rd party app developers?

As I was previously a co-chair for the W3C's automotive efforts, I may be biased. But there's a lot going on with HTML5: GM and Mazda have developer programs constructed on HTML5. Companies like Elektrobit, Intel, OpenCar, and QNX are providing HTML5-based solutions to the market. And the W3C continues its work on standardizing HTML5 automotive APIs. Auto companies like BMW, Continental, Ford, GM, Hyundai, JLR, LG, Mitsubishi, Porsche, Visteon, and VW are closely watching this work.

Is HTML5 the only solution? Of course not—the OEM app landscape is quite fragmented. But HTML5 is one of the only in-vehicle development tools that has traction across multiple OEMs. Even if the Open Automotive Alliance (OAA) swings the balance of head-units over to Android, it's important to note that HTML5 apps can run on Android or iOS platforms, which

Andy Gryc
Co-Founder
CX3 Marketing
Ottawa, Canada

Andy is a well-known and well-connected automotive technology evangelist. His reputation in the industry is rooted in his hands-on experience in the automotive and embedded trenches – software architecture and engineering, technical sales, and product marketing – for well over two decades at companies like QNX, OnStar, and HP. He was recently co-chair of the W3C Automotive Business Group for standardizing HTML5 in the vehicle. He is currently the Conference Director for the LA Auto Show's Connected Car Expo as well as Director for the automotive track at CTIA's Super Mobility Week.

I don't think design novelty in infotainment systems is the problem. Creating a UX that considers human-factor issues while not contributing to driver distraction is. The interfaces need to be simpler than most currently are; this actually drives less novelty.

makes them a relatively safe development bet to make.

Do you think an 'open-source' standard for infotainment, the one like GENIVI is working on, would be beneficial in the long-race?

Potentially, but this really isn't an open source or a standards issue per se. There are a lot of parallels between the current automotive ecosystem and the phone ecosystem prior to the domination of Apple and Google. Every handset had its own OS and every carrier their own ecosystem—it was a complicated environment that did not encourage growth from the outside. Just like in automotive today, it wasn't feasible for developers to re-create the same app on numerous different platforms.

An automotive infotainment platform like GENIVI would be beneficial in the long run if it can dominate the field, reducing the external barrier to entry. However, the same could also be said for a proprietary solution that is a de facto standard. Ubiquity is what's crucial.

In such a multi-stakeholder and diverse ecosystem, how important do you find the mergers and strategic alliances being formed between OEMs, content providers, wireless carriers and the app development community?

Mergers and alliances have the potential to create interesting inflection points however, in reality, they typically don't. Take for instance, the Ford acquisition of Livio. Even if Ford decided to open up Livio to other OEMs like they did with Sync, would it gain widespread adoption? The same question could apply to Sprint Velocity—will it break out beyond Chrysler? The likely answer is no. OEMs tend to have a "not invented here" philosophy.

In my opinion most mergers and alliances solve practical business problems in bringing solutions to market but they don't reduce the diverse nature of the ecosystem. You still end up with independent vertical silos.

What are the challenges that have to be surpassed to make infotainment and in-car apps a worthy investment?

It depends on which party is making the investment.

For the OEM, an app store is not a worthy investment by itself but a table-stake to prevent the erosion of market share. The challenges that OEMs need to surpass are many. They have to cost-effectively build an embedded system with the right flexibility, create an SDK and infrastructure to enable the apps, and energize an app ecosystem. They need to weigh this herculean effort of building their own solution versus the loss of differentiation by adopting someone else's. Internal OEM champions will have to continually convince their own organization of the merits of bringing an app store—a decidedly non-automotive construct—to life against the backdrop of a risk-adverse culture.

The challenges are also numerous for app developers. The proliferation of tools, languages, and SDKs makes it virtually impossible to create an app that targets multiple brands. App developers require consistent access to the vehicle features that can make their app interesting and unique. They need to suffer through long courtships with the OEMs that have no guaranteed payback. And they need to find a way to get a return on their investment that's not dependent on the app's price. Automotive volumes are too low for aggressively low app pricing, and consumers are unlikely to pay orders of magnitude more.

Mergers and alliances solve practical business problems in bringing solutions to market but they don't reduce the diverse nature of the ecosystem. You still end up with independent vertical silos.

When might we see in-car infotainment systems as the 'must have' feature for every car that is going to be rolled out in the market?

2018. I believe CarPlay, OAA, and their link to consumers' Apple and Android devices will be key to broad customer adoption. CarPlay was officially launched this year. OAA has not yet publically released their plans but is expected to sometime later this year. Both will be widely adopted by OEMs. Assuming a shortened development lifecycle of 1.5 years enabled by the consumer electronics muscle, this puts most CarPlay or Android-based systems out by 2016.

Early adopters will buy these first systems but another year or two will be needed for widespread consumer acceptance. Somewhat ironically, this may be helped along by NHTSA.

Their ruling on rear-view visibility requirements is being phased in over the next four years with 100% penetration being mandated by 2018. Compliance will be largely satisfied by new mirror designs but the ruling may also encourage an increase in IVI-capable screens where the rear-view camera and infotainment screens are one and the same.


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MY NEXT CAR WILL BE A GOOGLE!

No other industry is facing such a fundamental transformation as the automotive industry. Perhaps, a change that will have a great influence on this powerful industry as the invention of the engine had.

Source: Toyota

The car is becoming part of something, which has made our daily lives more and more connected for over 20 years - the Internet. And this has consequences. In the coming years, numerous scenarios which we knew only from sci-fi movies will become reality. Cars will move completely autonomously in regular traffic, vehicles will share data in real-time and improve the flow of traffic and the overall safety on the streets many times over. Cars will know their drivers, know what they want to do and where they want to go, and provide them with the right information at the right time.

For many decades and generations of drivers, it was normal to buy a car of the same brand over and over again and again. Children inherited the car brands of choice that their parents supported. But automobile brands have always involved a clear commitment. A car's brand has always stood for something: safety, sportiness, extravagance and luxury, etc. Cars and their brands are status symbols.

The automotive industry has built and perfected a world of brands and wants to protect it. The long product cycles, high complexity, and the corresponding capital required to build a car have made it impossible for new manufacturers to simple pop up. The buyer can rely on their brand.

A major trend in recent years is car-sharing, i.e. the possibility to rent a car, when one needs it without owning it. In many large and midsized cities there are the colorful little SMART Cars, Corollas and MINI Coopers of car sharing companies like Zipcar or Car2Go parked on many street corners, waiting for a user. One would think this would be a great trend for the auto industry. In Berlin alone there are easily over a thousand of just such car-sharing vehicles.

The fact is that almost 50% of all users if offered such a deal, would never buy a car on their own - as the Wall Street Journal[1] recently reported. Lifestyle and status seems not necessarily connected anymore, it only matters that you have access to a car and any brand will do.

This paradigm shift in the automotive industry can be shown even more impressively, on the basis of autonomously driving vehicles. The probability is currently not low, that one could meet a Toyota Prius with a strange structure on its roof on a road in Silicon Valley with six colored letters, "G-O-O-G-L-E" adorning its door and the driver's seat empty. Not a traditional automaker, but the Internet company Google is one of the key technology drivers in this area. But the German car makers are also working intensely on similar concepts and driverless S-class Mercedes Benz's can be seen driving autonomously, ever carefully through the narrow streets in the villages around Stuttgart[2].

This may all seem like a good sign for the automotive industry and that these innovations are being driven by the market leaders but two things are coming together: the consumer behavior of the future buyer groups and the fact that the Internet is driving these developments and that there are clear technology leaders. In a recent KPMG study, participants were asked which manufacturer they most likely would buy an autonomously driving car from if they would have to use it every day. The answer is not surprising in light of the recent facts here, but it can have existential implications for traditional manufacturers. Google and Apple would be the preferred companies[3] - followed by high class manufacturers such as Mercedes but far from mass manufacturers such as Chevrolet and Nissan.

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Holger G. Weiss
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Having previously worked with Nokia in the mobile mapping segment, Holger helped to start AUPEO! in 2008 which is now a leading player in music streaming for automotive and mobile devices. He has served as a startup mentor for companies in Germany, UK and USA. His specializations include business development, contract negotiations, strategic alliances, leadership and sales.

Unlocking the value of M2M

Satellite and cellular machine-to-machine (M2M) platforms have come a long way in the past 10 years. In 2004, satellite was considered the best — and perhaps only — option to track drivers and assets across the country and international borders. The coverage was reliable, but satellite constellations had cost billions to launch into space. The price for usage was steep. Fleets therefore had to limit transmissions by size, duration and frequency to manage expenses.

Cellular platforms offered a more affordable alternative, but fleets were still hesitant to trade these cost savings for seamless coverage.

A decade ago, mainstream cellular was 2G with 3G starting to percolate. Phones with Bluetooth were considered "cutting edge" but the actual phone numbers were not portable and 1MB data plans with pooling were not affordable.

The dual-mode platform was merely a concept for having the best of both worlds — speed when you have it and coverage when you need it most. Meanwhile, GPS processors were sucking power from tracking devices like an F5 tornado. Solar power with its large, fragile and ineffective panels did not appear likely to be powering tiny tracking devices in a harsh mobile environment anytime soon.

The in-cab industry was largely dominated by one satellite M2M provider and trailer tracking providers were few and far between. Mobile software applications were clunky with difficult-to-learn functions and macros for communications. Reporting was limited and the deployment costs of M2M solutions were significant.

Combined, these factors created an advantage for large fleets with greater resources to stay current with technology while small and medium haulers tended to economize and deploy just enough to get by such as Nextel "direct connect" radios.

Fast forward to 2014. Any discussion of M2M today goes beyond one-to-one connectivity between vehicles, drivers and the office via cellular and satellite networks. M2M is now synonymous with the "Internet of Things" as vehicles are inundated with devices and sensors.

Mainstream cellular is now 3G with 4G coming on strong as discussions of 5G are taking place. Data plans are affordable and dual-mode platforms fill any gaps in coverage. Next generation satellites are now being deployed with massive increases in power and bandwidth and beam coverage all without commanding a premium difference in price.

Tracking devices have become compact, ruggedized and maintenance free with the advent of solar-powered, rechargeable batteries. All the while, the amount of data that can be streamed between trucks and the office is stunning.

In short, the capabilities and options for deploying technology have multiplied by tenfold, if not more. You can track, locate, navigate and monitor anything on wheels using any device with an Internet connection. Fleet managers can even change the temperature settings of refrigerated trailers or lock and unlock trailer doors from a smart phone, for example, or better yet, have their computer systems do it automatically based on the pre-set parameters dictated by the items listed in the bill of lading.

As technology adoption has increased, what once was considered cutting edge, too expensive and impractical to deploy is now mainstream. Small haulers are able to provide the same type of reports and data to their clients as larger competitors.

The transportation industry has become just as good, if not better, at delivering information than delivering freight.

Why is this important?

According to a recent Georgia Tech study, supply chain glitches can torpedo shareholder value. After adjusting for industry and market movements, the total shareholder value loss associated with a glitch can be as high as 25 percent.

Craig Montgomery
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With over 18 years of diverse experience in wireless communication and transportation, at present he heads ORBCOMM's product management, marketing, branding and public relations team for its global M2M business. He was also Sprint Nextel's head of Direct Marketing for all business units as well as the Director of Marketing for the transportation, distribution and manufacturing verticals at Nextel prior to the merger. He holds an MBA from Vanderbilt University and a Bachelor of Science from San Diego State University.

To put this into perspective, consider the cost to deliver a box of cereal. According to the Council of Supply Chain Management Professionals, the total logistics costs to deliver a $3.60 box of cereal from the field to the consumer's table is about $0.37 with a net retail profit of about $0.05. Knowing where that box of cereal is and ensuring it gets there on time is the difference between $.05 and $.03 cents per box. According to statisticsbrain.com, 2.7 billion boxes of cereal are sold a year in the U.S. The $0.02 spread is now $54 million in lost profit for retailers.

Driving adoption

Of all the problems that technological advances in M2M have solved during the past 10 years, they have raised many questions. For instance, why is the market not adopting technology faster? Why have sensors not become more diverse with deeper local area communication between devices? Why hasn't RFID exploded across the scene of the supply chain in every crate and pallet being moved? The answer to these and other questions is a lack of a standard communications platform. The reason why the Web exploded so quickly after Tim Berners-Lee invented it was because it was based on a standard HTTP platform. Cellular has CDMA and GSM, for example. Wireless protocols include Wi-Fi, Bluetooth and Zigbee. RFID consists of active and passive tags. While there will always be different providers of communications services, in order for M2M to become more ubiquitous, more convergence of platforms will be required. ***Moore's Law will do its job in terms of advancing technology and lowering costs, but creating an "Internet of Things" will require more standardization.***

Where we go from here

One way to indirectly drive standardization within the primary M2M communications platforms (satellite and cellular) is by creating a Multi-network Access Point Platform (MAPP). Simply put, this is a platform that seamlessly translates and integrates the communications from a diverse network of service partners into a uniform set of commands and information. This would facilitate a uniform platform for provisioning, billing and multi-mode access for M2M applications, enabling access to network and terminal management tools for integration. The MAPP concept could be coupled with standard modems that have the same footprint, connectors, power input and programming environment.

A platform such as this eliminates the worry about VHS versus L-Band satellite communications, or GSM versus CDMA cellular communications. Manufacturers and partners would simply be able to drop in the appropriate modem corresponding with the optimal network based on geography, message size and delivery speed for unrivaled ease of use and flexibility. On the other hand, standardizing the various local-area communications protocols such as Wi-Fi, Bluetooth and Zigbee will primarily be driven by market forces. These technologies all have pros and cons, but there are two key aspects that will win in the transportation and distribution sector.

1. **Power consumption.** In transportation and logistics, devices are often forced to operate without power when decoupling the tractor from the trailer or the container from the chassis.
2. **Mesh network.** As we evolve from tracking containers and trailers to pallets and boxes, a mesh network is the next logical step in total transparency of goods from manufacturing to the customer door or store floor. It's also the key to creating a robust "Internet of Things" where trucks talk to trucks, boxes talk to boxes, boxes talk to trailers, etc.

According to a study by management consulting firm Bain & Company, companies that employ sophisticated supply chain methods enjoy 12 times greater profit than companies with unsophisticated methods. The future is now. Much, if not all, of the technology that is needed to create this degree of sophistication is here but deploying it should not be complicated. Unlocking its value can only be done by deploying solutions to determine what is optimal for your fleet and customers.

As you begin to test different solutions, you will begin to understand which satellite and cellular networks are optimal for your fleet's behaviors and which devices can provide the tracking, locating and monitoring technology demanded for your operations. Put another way, can you really afford not to deploy new M2M communications and tracking technology?

ANDROID POWERED IN-CAR UI HAS THE TIME COME?

Source: SoftPedia

Earlier this year at the Consumer Electronics Show(CES), Google and NVIDIA penned down a joint venture with the leading automotive giants like GM, Toyota, Audi and Hyundai to drive new innovations in the IVI segment. The project, normally called Open Automotive Alliance (OAA) is intended to bring Android-based UI platforms onto the dash panels of the car.

Ever since the announcement, there hasn't been much to be discussed about this as the stakeholders remained dormant for a long period and people were yet to see a 'movement' from Google in this regard. But to everybody's utter surprise, Google unveiled the first-look of the so called 'Android in the Car' UI.

While some tech-savvy group of people are calling it a rumor, majority of industry leaders are calling it a 'somewhat look-alike' version of the real one owing to the information provided on the Android website. According to the sources, the basic interface will center around four distinct spaces – navigation, music, telephony, and search. However there is no mention as whether it will allow the integration of 3rd party apps or will be reliant on an OEM-run app store.

One inference from such announcement that we draw is that by the time 'Android in the Car' rolls out in the market it will have already seen so many changes and upgrades than shown in the announcement.

Secondly, if this has to be believed, then we are only months away from what would be a revolution in the automotive industry.

Shamik Ghosh
News Source: Android
Re-published:www.telematicswire.net

THE RISE OF INTERNET RADIO

For over seven decades, terrestrial radio has been the primary source for in-car entertainment. However, Internet radio has gained momentum for quite some time and is now being seen by the automotive majors and content providers as a 'game-changer for its huge potential. So what exactly it is and how it is rapidly changing the infotainment market. Let's hear it from Ryan Goff of iHeartRadio.

What according to you is driving the in-car infotainment market globally?

While I cannot speak from a global perspective, generally the rising consumer behavior of being in a constantly connected world and the increasing availability of a robust 4G LTE network in-vehicle in the United States is what is driving the convergence of in-car infotainment and the connected car market.

While there are a lot of Internet radio platforms available in the market globally, what makes iHeartRadio unique?

iHeartRadio is currently the only available in-car radio across the United States. It is all-in-one digital radio and streaming music platform that delivers more than 1,500 live broadcast radio stations as well as offers the ability to hear professionally curated playlists, user-created Custom Stations based on an artist or song and on demand Shows & Personalities segments.

In a race where every automotive OEM is trying to integrate Internet radio in their vehicles, what challenges does iHeartRadio face in serving them all?

Our goal is to be everywhere our consumers are with the products and services they expect. The automobile is of course a natural fit for us and our Live Radio stations are found in just about every vehicle already through the AM/FM radio. We are working hard to implement our digital iHeartRadio platform into these cars everyday so that our listeners will never drive out of range of their favorite radio stations. We understand that it's not possible to integrate into every platform out there all at once, so we strategically review and choose the solutions which are going to take us the furthest in our commitment to our consumers and provide the best user experience.

Are there any limiting factors which need to be addressed for Internet radio to have a global outreach?

The primary factor is that the licensing laws and regulations vary from region to region, making it difficult to easily implement globally.

At present, infotainment and in-car apps are only available in a niche segment of high-end automobiles. Do you see this trend changing in days to come?

Absolutely. There is a shift happening with an increased focus of applications integration. Technology changes so quickly, making more simple and less costly approaches available more widely. It will really come down to the approach, utilizing the tethered handset or implementing a more expensive system that provides more options including embedded application integration with a unique technology.

Having already been acclaimed as the 'the best streaming radio app', what is the roadmap ahead for iHeartRadio?

Our strategy is to be everywhere where our listeners are. We will continue to grow and expand, and in parallel also work to refine the existing experiences to make them even more seamless and easy to use.

Do you think there is a need to create awareness amongst the community about Internet radio and its huge potential?

While Clear Channel has an overall reach of more than 245 million people in the United States with more than 840 owned and operated radio stations, there is always room for further awareness and exposure. We are constantly looking to innovate in the field and bring the best possible product to consumers.

What according to you would drive the future of Internet radio in the automotive industry?

Mass availability, ease of use and a great user experience that works seamlessly with your routine, while not distracting you from the most important task at hand, which is to get safely from Point A to Point B.

Photo Credits: Ravi Bhatia

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Shortly after his graduation, Ryan started working in the automotive space for a Tier-1 supplier to automakers like General Motors, Ford and Toyota for the Audio Infotainment Interfaces. In his current role, he is looking after automotive integration, testing and development activities of the iHeartRadio products at Clear Channel Media. He holds a Bachelor's degree in Computer Engineering from Purdue University, Indiana.

Vehicle Telematics in India

Beyond plain 'vanilla' tracking

The Indian telematics industry is shifting from generic tracking services to more specific solutions like integrated taxi dispatch, cold storage fleet management, GIS-GPS integrated solutions for industries like logistics, mining and construction.

The requirement for PSUs is generally not just plain vanilla tracking but securing assets and also ensuring that there is zero pilferage in transferring of materials and goods. That is where MapmyIndia provides sophisticated end-to-end tracking and monitoring solutions.

being used today is rugged, tamper-proof, latest and is capable of being integrated with multiple peripherals like smart card readers, cameras, fuel sensors, axle load centers, etc. In the last few years the telecom network coverage in India has improved a lot, especially on highways and in the rural areas which has made vehicle tracking systems more reliable. On the platform side, now we have critical integrated business systems serving a variety of verticals. Gone are the days in which tracking used to be very generic with simple track and trace functionalities and a rudimentary set of reports.

Now we have sophisticated UIs with multi feature dashboards, different types of reports, advanced features like integration with back-office data, route planning, KPIs etc. This has been made possible because of a tight knit integration between the maps and application which today provide highly detailed, accurate reports and along with a variety of other useful features.

Public Sector Undertakings (PSUs) in oil & gas, coal and others are looking for telematics solutions. What challenges industry will face in providing solutions and services for them?

The requirement for PSUs is generally not just plain vanilla tracking but securing assets and also ensuring that there is zero pilferage in transferring of materials and goods. That is where MapmyIndia provides sophisticated end-to-end tracking and monitoring solutions. The major challenge faced here is that solutions require integration of several products, services and there is a lot of dependency on telecom service providers. There are also several local political conditions which have to be considered.

How are e-commerce companies and other private enterprises leveraging vehicle tracking for their benefit?

Delivery time and delivery cost are very crucial factors in this industry. The e-commerce companies give a commitment to the consumers and are then dependent on the courier services for deliveries. All the major courier companies are using vehicle tracking and it helps in monitoring the operations. Another issue of concern for this industry is route planning, as number of deliveries to be done is huge and manual planning is done for delivery. There are several routing and tracking solutions available today which can help e-commerce companies save costs and increase customer satisfaction.

Other than e-commerce many BPO companies (who provide pick-up and drop facilities to their employees) and radio cabs are also adopting GPS tracking at a fast pace, due to the growing concerns of safety and security specially that of women.

What are your views on the emerging technologies like Connected Cars?

One thing is for sure. The car is no longer a "dumb" un-interactive machine that you used just to get from point A to B. We are seeing right now what we witnessed during the "electronics" era of the 90s when the car went from being mechanical to electronical. Now it is getting smarter and connected and the ecosystem is preparing for that. Emerging technologies in connected space are enabling automotive makers to deliver a phenomenal driving and riding experience that goes beyond traditional vehicular movement. The driver and the car are connected wirelessly to a service delivery platform which helps in providing services like navigation on the go and location based content like nearest movies, restaurants, ATMs, road side assistance, service reminder & scheduling and e-call. This is a very exciting phase for the industry.

How do you see the future of vehicle tracking industry shaping up in India?

The future looks bright. Demand shall grow as more and more people and businesses realize the benefits that it offers, especially in reducing the overall costs. The planned construction of additional highways and recent policy initiatives by central & local government keeping in mind the security and safety of people will drive demand growth for tracking and fleet management throughout India.

Many automotive OEMs and luxury car makers will start offering vehicle tracking to their consumers directly in a much bigger way. We shall also see many domain specific solutions that will allow seamless integration with different platforms.

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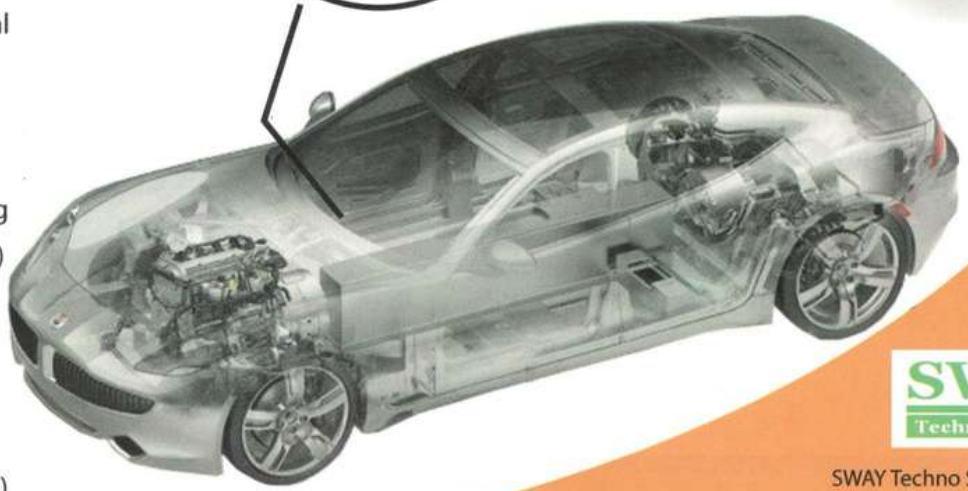
SecureWay Solution Features

- Web and Mobile UI
- Geofencing
- SMS/Email Alerts
- Immobilizer
- Towing
- E-Call ready *
- Real-time tracking
- Detailed Reports
- TCP/IP, HTTP
- Over speeding
- FOTA
- OTA configurable

Device Features

- IP-67 Dust & Waterproof
- 48-channel SiRFstarIV GSD4e engine
- Automotive Grade Modules
- Jamming detection & removal
- Fault tolerant I/Os
- Battery thermal protection
- Tamper detection
- Automatic-Antenna switching
- Long battery backup (50hrs+)
- MEMS sensor
- iButton reader
- Integrated RFID reader
- SOS Switch
- Internal storage (upto 30days)
- Wide Power range (Supports car, bus, truck, bike)



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Telematics Market in India

The telematics market in India has become one of the fastest emerging markets primarily driven by factors such as spiraling fuel prices, increasing number of accidents, need for vehicle navigation systems and monitoring fuel pilferage and curtailing incidents of vehicle theft.

The telematics market in India is relatively old, but the adoption rate has been on the lower side due to lack of awareness among prospective users. Moving ahead, vehicle OEMs and telematics suppliers are upbeat about the demand as awareness levels are increasing. Currently, telecom network-enabled telematics is gaining impetus over modules based on second generation platforms because of price advantages. Though, at present these modules dominate the Indian telematics market, but in the near future a move toward third or higher generation networks is expected.

The Indian telematics market is expected to reach 0.5 million by 2018, growing at a CAGR of 33.5 % during the period 2013-2018. The commercial vehicles segment is expected to drive demand for telematics services in India; penetration level is expected to reach 3.7 % by 2018. Penetration level of telematics services are expected to remain flattish in passenger vehicles segment as majority of the demand will continue to remain limited in the luxury car segment, which constitutes a very small proportion of the entire volume.

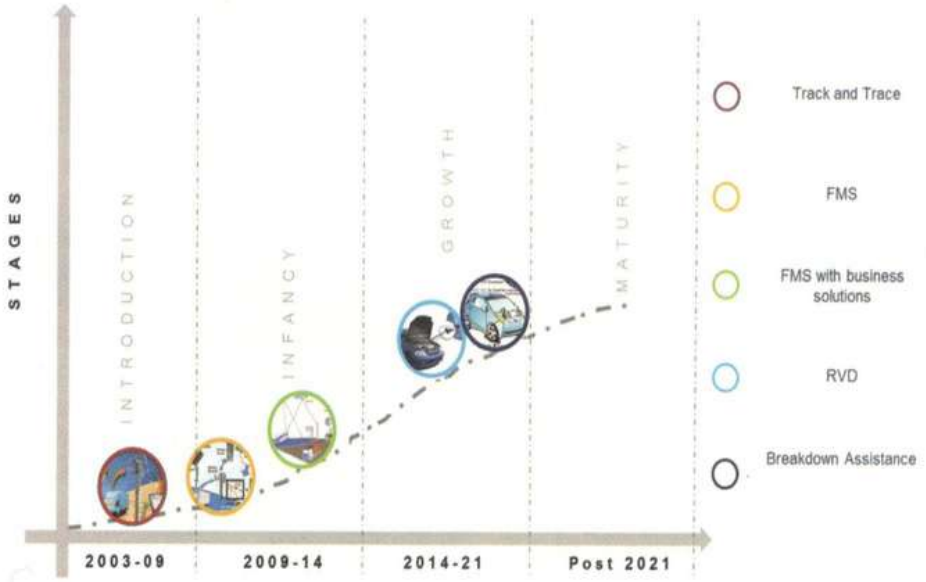
Solutions like Fleet Management System (FMS) and 'Track and Trace' are expected to drive the majority of the demand generated during this time span. Furthermore, the growth of the market is also expected to be driven by Government initiatives, such as the recently announced INR 12,000 crore (US $2.4 Billion) investment to upgrade police forces, including consolidation of security grids in all key cities. These initiatives will act as a major growth driver for the Indian telematics market in the coming years.

Vehicle tracking systems and FMS currently contribute 92.4 % to the total demand of telematics services in India. This demand for telematics from the passenger vehicle segment is primarily from the radio taxi market, and from the commercial vehicle segment, and logistics industry. Other key contributors are the passenger car luxury segment, cold chain management, pharmaceuticals, and retail industries. Besides the growing telematics consumers for personal or business use, state-wise mandates for safety and security by the Government of India have also helped market growth in the last five years. The opportunity that the

market provides for hardware and software suppliers presents another encouraging outlook for India.

Increasing fuel prices and wafer-thin profit margins in the transportation industry are expected to compel fleet operators to gain competitive advantage by vehicle tracking, route calculation, checking fuel pilferage, and other telematics offerings. However, the initial cost of telematics hardware is interrupting growth in smaller fleets (up to five trucks) that account for around 70 % of the transport industry. Even the larger fleets (more than 20 trucks), holding around 14 % of the share, get affected by the effects of a debilitated economic climate, and are reluctant to update or continue subscriptions of any FMS. Another growth deterrent stems from anxieties about sensitive company data being exposed to a third party or competitor. Considering both these positive and negative factors, the size of commercial vehicle telematics represented mainly by

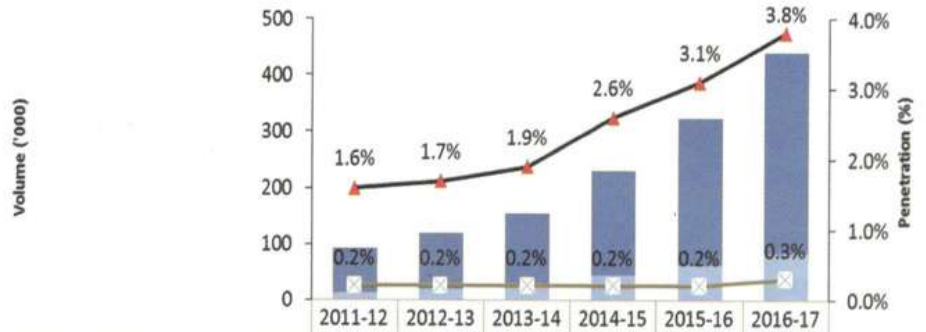
Fig. 1: Stages of Telematics Presence, India



FMS- Fleet Management System, RVD – Remote Vehicle Diagnostics

Source: *Frost & Sullivan*

Fig. 2: Telematics Penetration by Vehicle Segment



	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
CV Telematics - Volume ('000)	80	100	125	186	260	357
PV Telematics - Volume ('000)	12	19	29	45	63	83
CV Penetration (%)	1.6%	1.7%	1.9%	2.6%	3.1%	3.8%
PV Penetration (%)	0.2%	0.2%	0.2%	0.2%	0.2%	0.3%

**CV: Commercial Vehicles, PV: Passenger Vehicles*

Note: All figures are rounded; the base year is 2013

Source: Frost & Sullivan

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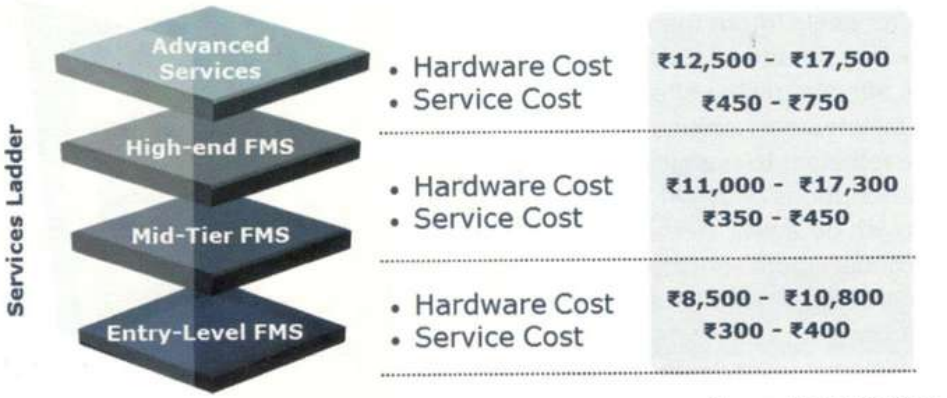
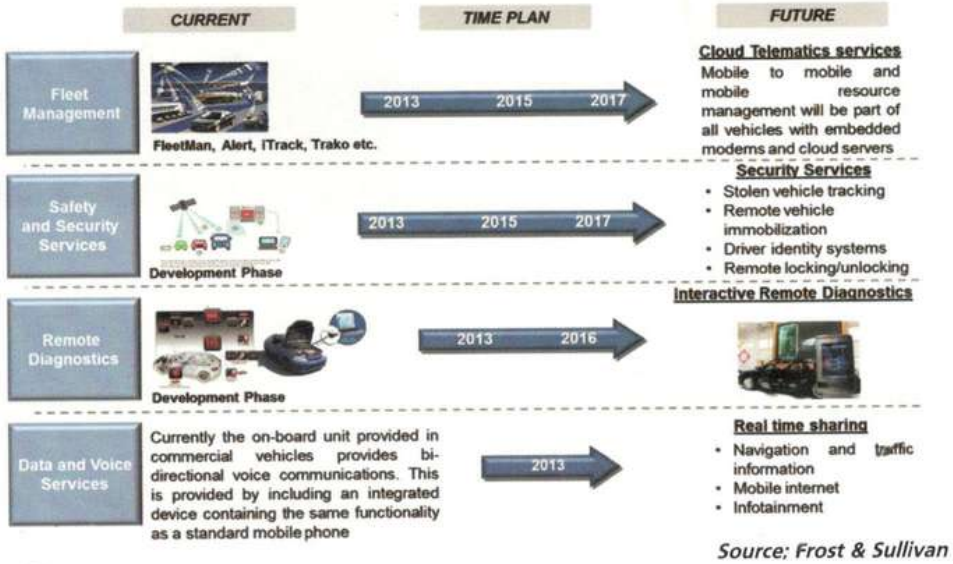
Also known as 'Ramki', he is responsible for building the business in the automotive space, both in scale and diversity. He has been looking after Automotive, Transportation and Logistics business unit for Middle East, North Africa and South Asia. He has also worked closely with leading domestic and international clients on assignments, in the U.S, Malaysia, Sri Lanka, South Africa, Mexico and LATAM markets. He holds a BE in Electronics and Instrumentation from Annamalai University and an MBA in Finance & Marketing from IBS Hyderabad.

Fig. 3: Service Offerings, India



Source: Frost & Sullivan

Fig. 4: Roadmap of Telematics Services in India



Source: Frost & Sullivan

track and trace and the bi-directional voice service is likely to reach 0.3 million units sales annually by 2018. A massive unexploited vehicle base and acceptance in forthcoming passenger vehicle models is expected to spur the growth of the telematics market in India. Currently, pre-fitted/embedded modules have contributed to majority of market revenues in the passenger vehicle telematics market.The passenger vehicle telematics market is still under penetrated due to lack of adequate infrastructure. The only respite comes from radio taxi players like Meru Cabs, Ola Cabs, Mega Cabs, etc. where more than 95 % of the fleet is operated using fleet tracking and vehicle positioning systems. The Indian market is still oblivious of significantly important features of telematics like remote vehicle diagnostics, cloud services, driver training, etc., which are already at an advanced stage in the USA and Europe.

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The economic and political agenda for development in India in 2012 and 2013 emphasized on incorporating changes in the laws governing foreign investments, tax reforms, public transport systems and security. These are the factors, which are expected to govern India's infrastructure investment plans of nearly US $1 trillion with an additional planned construction of 10,000 km by the National Highway Authority of India during the 12th five year plan. Additionally, recent demand for improved security will further boost demand for vehicle tracking in public transport sector. Public sector consumers are opening up to procurement judgments on complete life cycle paybacks, rather than low initial costs. This shows a healthy sign for a growing demand for advanced FMS in times ahead. Advances in robust hardware (tamper-proof), reliable infrastructure, cloud services, and amalgamation with key business structures are significant drivers of the business models. The market for vehicle tracking and fleet management, in one of the most developing economies, cannot be ignored as long-term justifiable growth is assured even in adverse situations. Currently, the telematics industry is at diverse stages of development across segments. But given the market subtleties, automotive OEMs are embracing inventive solutions, compound technology and domain offerings to face challenges. This presents a good opportunity for global majors to develop customized low-cost solutions, which are apt for local conditions thereby catalyzing the demand curve for telematics services in India. Strong drivers and a very evident need are clearly visible for these services; one only needs to provide the demand matching solutions and in short span we could witness rise in the penetration of telematics service business in India.

Seamless Communication, Effortless Growth

Award Winning GPS Tracking Solutions

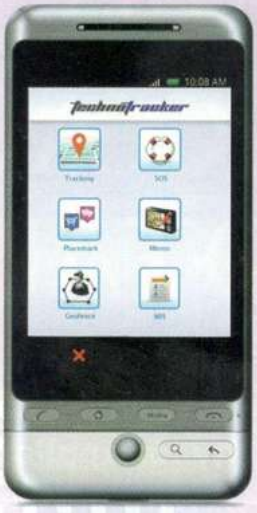
TOP 10 IDEAS in The Economic Times Power Of Ideas - 2010

World's Smallest VEHICLE TRACKER

TOP 75 IDEAS in The Economic Times Power Of Ideas - 2012

Employee Tracking & Reporting App

Mobile APP for On-Field WorkForce



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- LIVE TRACKING
- OVERSPEED ALERTS
- KMS TRAVELLED
- GEO FENCE ALERTS
- SMS & EMAIL UPDATES
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- LIVE TRACKING
- AUTO ATTENDANCE
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HTML5

WHAT IT CAN BRING TO AUTOMOTIVE INFOTAINMENT?

Automakers and Tier-1s have a lot of choice when it comes to choosing the right strategy for application platforms for their in-vehicle infotainment systems. With growing complexity of electronic components in cars today and in-vehicle infotainment systems being responsible for a big chunk of that cost, making the right decision has become ever so important in managing overall costs.

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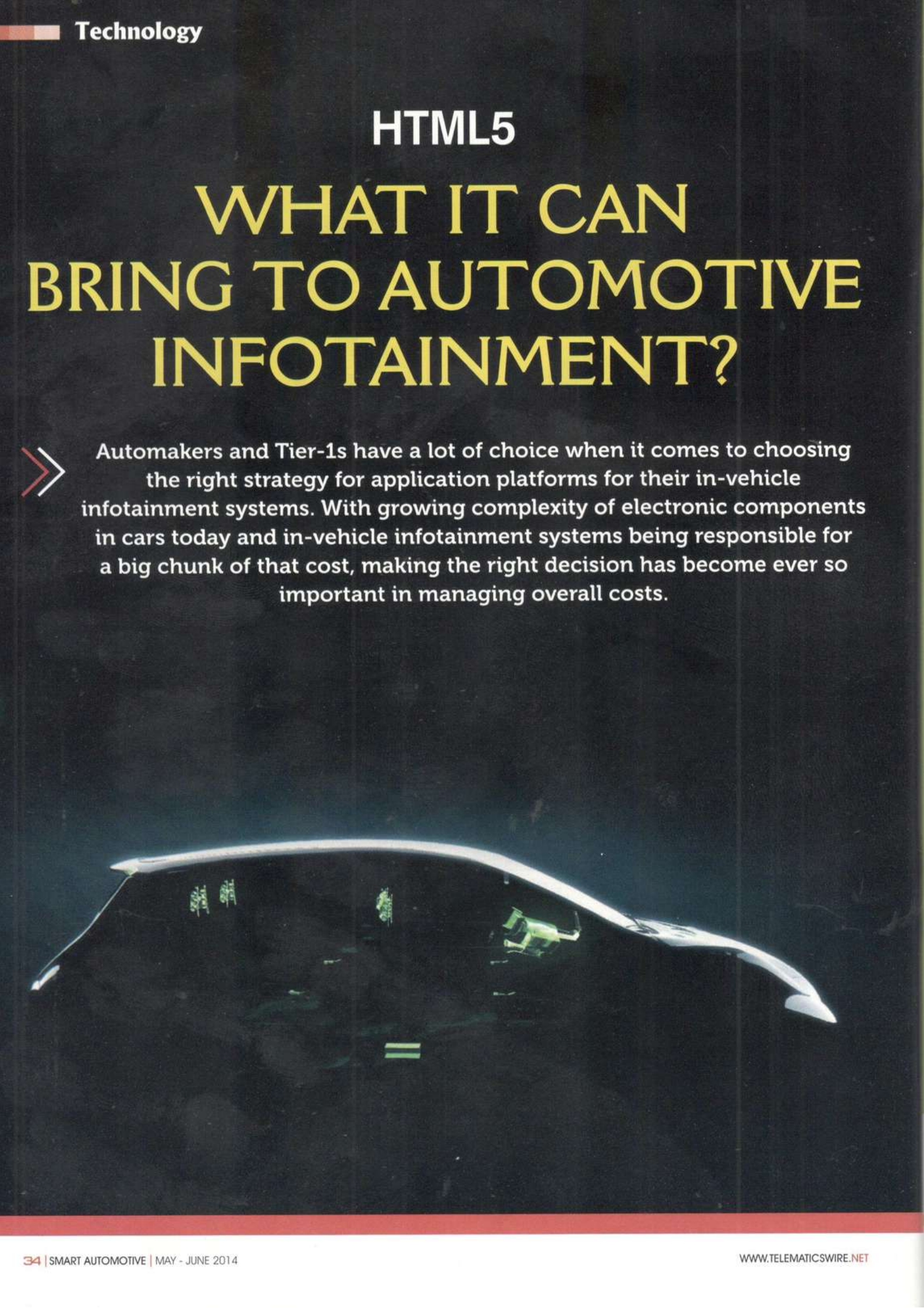

As we have witnessed in the mobile world, the range of device segments in cars are also narrowing and automakers must catch up to the demands of consumer electronics or else in-vehicle infotainment devices shall fall to becoming a mere CD/ Radio player and smart phones will undoubtedly be the primary device even while driving. Cranky user interface which may have been acceptable before must be fluid no matter if you are driving a Chevy Spark or a Mercedes-Benz S500.

So the question remains, how can HTML5 solve the problems faced by automakers and why should they consider HTML5 for application platforms? Among many, the most important and obvious answer is cost control, both short and long-term.

Over the course of several years, HTML5 has closed the gap with native implementations in terms of performance and usability which can be much attributed to evolvement of web standards and increased horsepower of internet devices in general, especially through the use of high performance Graphical Processor Units (GPUs). There are still debates about what generally works better in HTML5 versus native. Despite the support already available in HTML5 via WebGL, it may not be the right choice in building apps that require fast, rich graphics and animation with intensive user interaction. However, building apps that generally give information to users with simple interfaces, which are the designs strived in cars anyway, HTML5 will be more than perfect. Just think about what are the would-be killer-apps for cars and HTML5 technology today can be the answer to most, if not all. HTML5 apps are more than suitable for in-vehicle infotainment systems.

Developing HTML5 apps have become easier and faster with help of various tools and a huge community of developers supporting the technology. Aligning with this, W3C is dedicated in expanding the specifications that define the Vehicle Information APIs used to develop HTML5 applications to run on in-vehicle infotainment systems to communicate with the resources of the vehicle. Industry giants will continue to work together to standardize these APIs going forward. HTML5 app development is easy and HTML5 is an evolving technology that will span the life of the internet.

What about reusability of apps on multiple car platforms? Cross-platform has been one of the key advantages when speaking about HTML5. It is unrealistic for any automakers to consolidate infotainment platforms to a single OS for all car segments. This means that applications and services must be re-developed for each and every platform with variations in screen resolutions. HTML5 separates UI from the application logic making is simpler to modify the look and feel. So, reusability of applications has close correlation to reducing maintenance cost for automakers across the board. With HTML5, by its nature, can be used whatever the underlying OS with small to no modifications. HTML5 is cross-platform and cross-device.

From Obigo's perspective

A key advantage of HTML5 that is stressed by Obigo is that it can work in conjunction with the native environment. Certain apps, such as vehicle-dependent apps, can be more fit with native implementations and apps that are "service-oriented" which can grow organically with the vehicle app ecosystem; HTML5 should be the right choice. Considering how long it took mobile platforms to finally come to being, it would be interesting to watch how the slow-paced automotive industry will come, if ever, to a reasonable consolidation. All in all, whatever the choice of platforms, HTML5 can't solve all the headaches but it can certainly bring a lot to in-vehicle infotainment systems. The important thing to notice is that HTML5 technology is here to stay, for a very long time.

David Hwang
Chief Executive Officer
Obigo
Seoul, South Korea

David has been experienced in mobile, multimedia and telecommunication industries for more than 20 years at multinational companies like Ericsson and Samsung. He is an MA in R&D management and BA in Industrial Engineering from Sungkyunkwan University, Korea.

THE PAN EUROPEAN eCALL MANDATE

The mandated eCall system for Europe based on the single emergency number of 112 for all new types of cars and light trucks is coming; a definitive deployment date is getting closer, as the final legislative hurdles are overcome. In preparation for the deployment, the European Commission DG Connect sponsored two pre-deployment projects, which have now been active for three and a half years.

Source: BMW

The projects have stretched over 15 Members State and Associated Countries. The purpose of the projects is to test:

- The defined standards
- Examine In-vehicle systems
- Assess the readiness of Mobile Networks
- Define the Public Safety Answering Point (PSAP) upgrades necessary
- Ensure the continuity of service across all Member States(MS)
- Look at Aftermarket devices

So, with HeERO-1 project now complete what has been the conclusions reached so far? For HeERO-1 eight of the nine pilot sites have completed their defined tasks with the following results.

Croatia completed all tests and is now eCall ready for the deployment of the in-vehicle systems. The **Czech Republic** has completed eCall testing ready for the deployment of the in-vehicle systems. **Finland** has completed eCall testing, and is awaiting new PSAP System to be installed in 2015. **Germany** has completed eCall testing and has developed a deployment model, which would be capable of technically dealing with the high number of PSAP in Germany and is now awaiting a political decision to deploy.

Greece had a delayed start to the project, and as a consequence will complete in June 2014, with a second phase of testing underway. **Italy** has completed eCall testing in the Piedmont region, having developed a model which is being considered for the rest of Italy. **Netherlands** has completed eCall testing and is waiting for a political decision to deploy across the Netherlands.

Romania has completed eCall testing is now eCall ready for the deployment of the in-vehicle systems. **Sweden** has completed eCall testing and is awaiting a political decision to deploy. There have been some very clear lessons learned from these pilot site deployments, which will be relevant in all member states.

MS that have been canvassed, which includes HeERO Pilot Sites are still waiting for legislative process to be completed, and clear deployment dates are set. A number of MS have not waited and have ensured that they are ready to deploy.

The legislation necessary for the deployment of eCall based on 112 in Europe will be achieved through two separate elements of legislation, an amendment to the Type Approval Regulations for all new types of car. However the wording currently being adopted does require clear definitions as to exactly what the wording means and for some of the legislation what it does not mean.

There are three key elements to the provision of any form of eCall

- In-vehicle equipment
- Provision of a mobile telephone network
- A call centre to receive the call, process it and mobilize the emergency services.

Whilst the GSMA has been a clear supporter of eCall for many years, the reaction of a member state is not always consistent, currently the agreed date for the upgrade of mobile networks stands at the end of 2014.

The HeERO partners have discovered that the deployment of eCall is a multi-disciplinary effort with cooperation required from all MS stakeholders, who will all need to work together for eCall deployment. The introduction of eCall based on 112 will result in major changes to PSAP operational practices, as for the first time 112 eCall will have precise location and vehicle information provided automatically. Experience has shown that the operators need to undergo training to understand the concept of the different types of eCall Manual vs. Automatic and the levels

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Harmonized eCall European Pilot (HeERO)
ERTICO – ITS Europe
Brussels, Belgium

Andy served as a Police Officer in the UK for 31 years specialising in Road Policing and Road Death Investigation, before joining Transport for London as a project manager, a government funded initiative. He has vast experience in several projects like eMerge, GST Rescue, VERA 1, 2, 3, Electronic Vehicle Identification (EVI), REMOVE and eCoMove. He is now managing HeERO-1 and HeERO-2 with 15 Pilot Sites, with another 10 associate pilot sites across the world.

of confidence that each sort of call can bring.

Whilst this is the story for the first nine sites there are another six sites following a similar path as the first nine. Their experiences are to date similar to those in HeERO, however these are additional areas of work to expand eCall to different vehicle types which include eCall for Trucks (work already started by the Netherlands and carried on by Luxembourg). These devices are looking to increase the levels of understanding and the types of vehicle that could use eCall. However the biggest area of potential is in the after-market devices. Whilst eCall based on 112 will be mandated for all new types of cars and light trucks from a dates (currently no later than October 2017), there is no reference to the vehicles that already occupy the roads of Europe (currently standing at 293 million).

Potentially, this is a huge market that is yet to be fully understood. A number of MS have understood this and are now actively working to develop after-market eCall that will comply with all of the standards and can be fitted safely and effectively in older cars. The price of the units is starting to fall rapidly to a point where the insurance industry and the motoring organisations could look at these devices coupled with either insurance policies and or motoring breakdown fees. However this is not the whole story. For many years a number of vehicle manufactures have at times tried to introduce paid eCall services, linked to other telematics services. The success of these operations has been variable and very often the success has been confined to a particular region or member state. These types of devices differ in a number of fundamental ways from the eCall based on 112 that will be mandated:-

>> Third party service (TPS eCall) is based on a subscription, so it is a commercial arrangement between the vehicle owner and the vehicle manufacturers or a service provider acting on behalf of the vehicle maker.

>> The TPS eCall equipped vehicle does not have the benefit of the 112 number dialling. The result is that the telecommunication provider for the vehicle manufacturer has to make extensive arrangements to deal with a vehicle in a roaming state (not on its own network), whilst eCall based on 112 is capable of using any network and is a priority call. TPS eCall is not.

>> Privacy eCall based on 112 has a dispensation in data privacy legislation that permits the transmission of personal data for rescue purposes linked to the use of 112. TPS eCall does not have this dispensation, so permission has to be sought from the person to whom the person data refers.

>> TPS eCall system is usually designed to provide other services, not just eCall, to ensure that these services can be fulfilled the SIM in the vehicle need to

Whilst eCall based on 112 will be mandated for all new types of cars and light trucks from a dates (currently no later than October 2017), there is no reference to the vehicles that already occupy the roads of Europe (currently standing at 293 million).

remain live and connected to a network at all times, thus the vehicle, has the potential to be communicated with at any time and like any other mobile phone, it can provide information as to its current location. eCall based on 112 is only designed to one very specific task. It will only become active when either the sensors in the vehicle indicate that there has been an incident or the vehicle occupant presses the manual eCall button, at that point only will the system become live and transmit data gathered from the sensors in the vehicle, which will include the GPS positions.

>> As the TPS system does not use the 112 system, there is a reliance on a service centre manned somewhere in Europe to answer the call ascertain the nature of the emergency and find the right level of first responder required. Whilst there are some advantages to this type of system, (Language difficulties, advanced sensors) a time delay may occur.

During the life time of the HeERO projects, the legislative process has carried on in parallel, as has the Russian eCall system ERA GLONASS. There have been delays in the legislative process due to various factors resulting in vacuum around eCall, with no clearly defined deployment date. The result is that vehicle OEMs have moved to fill the vacuum, by providing TPS eCall to be offered to the vehicle owner as soon as they are available. Personally, I don't think there is anything such as "Bad eCall". All eCalls will carry out the process. Now, the MS in Europe are being faced with a situation to deal with variety of eCall systems, the TPS eCall systems do not use the same system as eCall based on 112, so a technical solution needs to be found to ensure that all types of eCall are handled in the most efficient and cost effective manner.

With the current delays communication technology will not stand still, already work as begun to look at the impact of LTE communications on eCall, and how this communication medium can be dealt with and continue to offer eCall to those vehicles equipped.

To sum up, as a person who has been given the difficult task of telling a family that their loved one will not be coming home because they have been involved in a traffic collision,

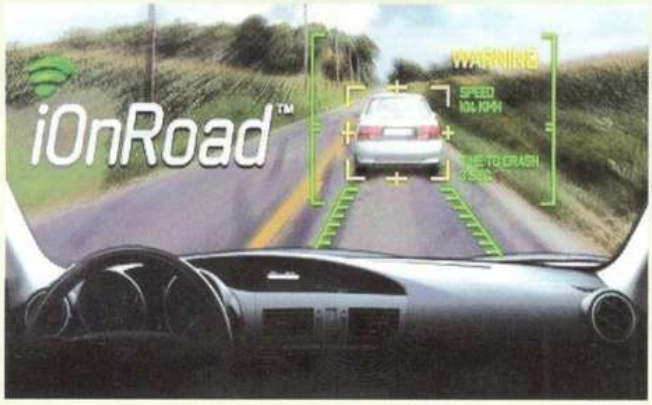
I support all forms of eCall and am working hard with the rest of the HeERO consortium to ensure that MS have the best information both technically and strategically to prepare for deployment. However the job is not yet complete, with a significant number of questions yet to be resolved, but there is a strong desire across large parts of Europe for eCall to assist in casualty reduction.

There is an app for that...

iOnRoad

Utility: Collision Detection & Avoidance

iOnRoad app focuses on augmented driving. Available for both Android and iPhone, this app

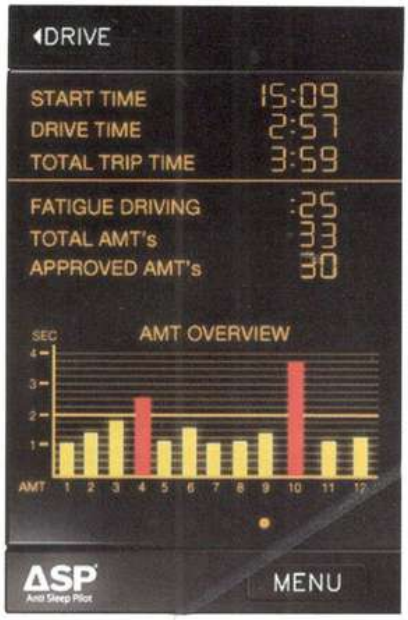


regularly indicates the driver about their driving speed and the distance between their vehicle and the one in front. It uses the smartphone's native camera, GPS and sensors to detect vehicles in front of the host vehicle, alerting drivers when they are in danger. As the vehicle approaches danger, an audio-visual warning pops up to alert of a possible collision, allowing the driver to brake in time.

It has been awarded as the Best Android Augmented Reality App, CES 2012 Design and Engineering Showcase Award and the CTIA Wireless E-Tech Award.

Anti Sleep Pilot (ASP)

Utility: Fatigue Detection



This iPhone compatible app is available at $1.99. It keeps the driver alert by calculating the fatigue level using reaction times from a series of basic tests. It pops up intermittently and includes pressing a big circular button as soon as safely possible. For this the driver's phone needs to be mounted near the line of sight within easy reach. It is specially designed for long hauls, night-shift workers or those who drive alone at night very often. The Android version is also expected to come soon.

Parkopedia

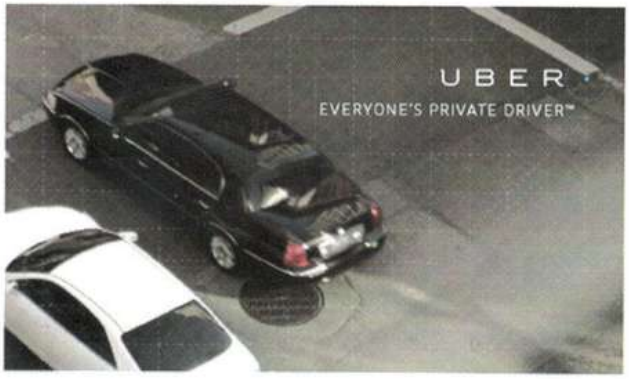
Utility: Parking Spots Availability

A cloud-hosted app which claims itself as the 'Wikipedia of Parking' is helping people parking. It provides real-time space availability information for drivers, allowing drivers to go directly to the open spot as opposed to circling the block searching for an opening. The cumulative parking database has already over 30 million spots and a counting. The app is available for free download in all platforms viz. iOS, Windows and Android. Earlier this year, Parkopedia signed a deal with Ford Motors to provide the app as an integrated offering in the SYNC AppLink™ suite.

Scout

Utility: Navigation assistance

Scout is a personal navigator, from Telenav that is compatible with all the mobile OS platforms. It features an interactive home screen called MyDashboard that gives information; a commuter might need to make decisions throughout the day. It has over 100 million traffic sources to get traffic information, and with traffic summary and incident icons displayed on the map, it also suggests the Points of Interest (POI) in the vicinity. With Scout one can share the Estimated Time of Arrival (ETA) with a group of people so meeting up becomes easy. Currently, it is being offered as a part of Ford SYNC AppLink™ suite of services for Android users.



Uber

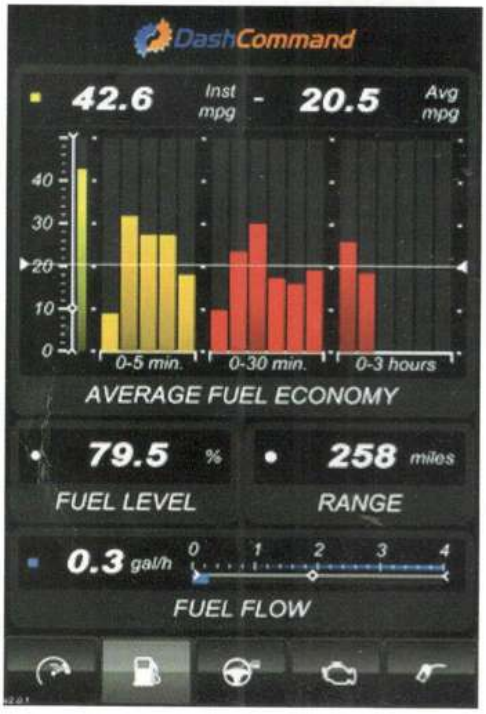
Utility: On-demand driver service

Uber is an on-demand driver service that allows users to request private drivers through applications in iPhone and Android compatible devices. The service utilizes dispatch software to send the nearest licensed professional driver to your location. The app provides a no-cash-payment solution that charges for the ride directly from the credit card on file with the user's account. After feeding the location, the user can demand for taxis, SUVs or high-end luxury cars, the tariff for which varies from country to country. Once confirmed, the app automatically indicates the expected time of arrival and the details of the driver.

DashCommand

Utility: OBD Vehicle Instrumentation App

This app lets the driver to interpret the dash warnings by plugging into the car's OBD port. It turns the screen iPhone/iPad or Android tablet into an advanced display for the engine data. The built in dashboard can display a total of 27 gauges pulling data directly from the engine control module. However, it is very expensive than other driver-centric apps ($51.99) and requires a compatible hardware interface purchased separately.



Carticipate

Utility: Ride Sharing

This free iTunes app is tailor-made for 'carpooling' services in compliance to the rapidly increasing gasoline prices and environmental concerns. It combines location-based data such as GPS coordinates, distance and direction of travel with mobile social networking. Pedestrians who are in the same direction as that of a nearest driver can also share the ride by paying a nominal charge. The app is not limited to the United States and comes with a multi-lingual configuration feature available in Spanish, Dutch, French and more.

Compiled by: ***Shamik Ghosh***
Associate Editor, Smart Automotive

Volvo and CTS to set up study groups to monitor driver's behaviour during traffic

Volvo car group in collaboration with China-Sweden Research Centre for Traffic Safety (CTS),is starting a close-up study called Naturalistic Driving Field Operational Test in China (China FOT) in the megacities Beijing and Shanghai. The insight into how drivers handle these exceptionally busy traffic environments is an important part of Volvo Cars' aim to develop safety systems that help drivers all over the world to avoid accidents. The ten Volvo S60Ls in the China FOT project will be equipped with a number of cameras that monitor the driver and the surrounding traffic. Information is also collected from the car-integrated sensors in the safety and driver support systems. Prior to this the drivers have signed a consent form to agree to be filmed. Starting in May 2014, a large number of real customers in Beijing and Shanghai will drive the cars during a ten-month test period. The collected material which is expected 5 TBs of data from about 100,000 km of driving, will be analysed during 2015.

Source: Volvo

Bosch's mySPINtechnology to be featured as InControl apps in Jaguar Land Rover

Bosch has collaborated with Jaguar Land Rover (JLR) to introduce Bosch's mySPIN technology on selected modelsJaguar F-TYPE Coupe and Range Rover Evoque models in 2015. Jaguar-F demonstrated this innovative solution as InControl Apps during the New York International Auto Show. InControl Apps were launched in the Consumer Electronics Show (CES) earlier this year.

mySPIN creates a device-to-vehicle linkwhere smartphone apps are made vehicle compatible by presenting drivers with only relevant information they are accustomed, thus minimizing distraction. While at present, the InControl app suite encompasses iHeartRadio, Parkopedia, Hotelseeker, Glympse, Sygic Navigation, Stitcher, News OnBoard, Winston, CitySeeker, EventSeeker, MilageTracker and MobileDay driver can enjoy more apps in days to come.

Microsoft unveils 'Windows in the Car' concept at Build 2014

Microsoft has revealed the concept of 'Windows in the Car', a Windows Phone-centric car integration system, much like Apple's CarPlay. It pares back the standard Windows Phone interface to suit center console touch-screens and safer use while on the move thanks to features like Cortana. The system essentially works as a mirror for what's already on your Windows Phone, allowing users to access apps like Maps, Xbox Radio, and Spotify on in-dash screens as well as physical car settings like defrost. Right now it is all still in the realms of demo-tech, and Microsoft isn't saying when it might make it out of the labs and into your dashboard.

Mercedes Concept S-Class Coupe is featuring QNX platform for infotainment system

Mercedes-Benz has selected the QNX CAR platform to power the infotainment system in its Concept S-Class Coupe, an exciting new concept vehicle created to showcase latest advancements of Mercedes Benz in User Experiences (UX) for the car. This infotainment system brings the Mercedes' design philosophy to life with a fresh and refined approach to the all-digital in-vehicle instrument cluster and head unit.

Source: QNX

The digital dials are functional yet sensual in the use of 3D and light, complementing the new interior. The use of particle effects conveys a sense of emotion to the head unit's main menu and mood-based selection of music, while the new Garmin map strikes a balance between form and function so that you arrive in style. Andrew Poliak, Global Director-Automotive Business Development at QNX Software System says, "When you look at this car, you are looking at the near future of automotive connectivity and infotainment."

STMicroelectronics selected by Yanfeng's Visteon for Connected Audio

Source: Visteon

STMicroelectronics' automotive microprocessor for car radio and display audio has been selected by Visteon Corporation's Chinese joint venture, Yanfeng Visteon Electronics (YFVE). YFVE is using ST's car radio processor in its new Connected Audio Products, which are in production with a major global OEM on several vehicle lines. The ST's processor family features multi-core processors (ARM-core processors and an application-specific DSP) performing multiple functions: digital audio decoding and playback, processing of audio effects, rich peripheral connectivity (including support for smartphone mirroring), visual interfaces and acceleration for graphical HMI. The platform offers a cost-effective system architecture for minimal CPU usage and best-in-class processing performance. None the less, it provides full support for Open Source Linux OS offering a wide choice of middleware and application components.

BMW enhances its ConnectedDrive services and apps in Australia

BMW Australia has announced a major enhancement of its ConnectedDrive services and features. Up until now, BMW Australia's customers have had access to basic driver assistance functions but have not been able to fully utilise the brand's so-called ConnectedDrive Services and Apps, which are already available overseas. This new range of services and apps will be available on Australian-delivered cars built during March or April of this year. Vehicles will leave the factory with an on-board SIM card and basic telematics features (for emergencies, as one example) already operational. Owners can elect to disable the SIM, thus disabling all the associated features. This includes BMW Teleservices, BMW Breakdown Call, Intelligent Emergency Call and a range of BMW Online services including news, weather, Google search and Online Office.

Nokia to invest USD 100 million in Connected Cars startups

New $100 Million Connected Car Fund

Backing Mobility Innovators-Globally

36%
OF DRIVERS CONSIDER CAR SHARING AS AN ALTERNATIVE TO CAR OWNERSHIP IN THE US

10M
OF THE CARS SOLD EACH YEAR ARE POWERED BY HERE'S IN DASH SERVICES

2083
CHECK-INS ON FOURSQUARE PER MINUTE

100X
AUTO DATA GROWTH GLOBALLY

2.7M
MAP CHANGES MADE EACH DAY TO HERE MAPS AS THE WORLD AROUND CHANGES

1/4
OF US CITY TRAFFIC COMES FROM SEARCHING FOR PARKING

850M
CARS & TRUCKS OUT THERE BUT ONLY A FEW PERCENT ARE CONNECTED

$2.5Tr
GLOBAL TRANSPORTATION INDUSTRY ESTIMATED TO BE WORTH $2.5 TRILLION

Source: HERE

Nokia in colloboration with HERE, has announced the launch of a $100 million Connected Car fund which is to be managed by Nokia Growth Partners (NGP). The fund will identify and invest in companies whose innovations will be important for a niche segment of connected and intelligent vehicles. While Nokia is already a major player in the automotive industry, with this venture, it will seek to make investments that also support the growth of the ecosystem around HERE's mapping and location products and services. The Connected Car fund extends NGP's global investment activities in the U.S., India, China and Europe where Nokia Growth Partners continue to invest in high potential businesses.

Samsung to bring its DriveLink application in BMW and Volkswagen

Samsung Electronics has been in low-key talks on providing its Drive Link in-car smartphone application to German automakers including BMW and Volkswagen. Samsung is expected to unveil its Drive Link system on the Galaxy S5 this year. It would be an upgrade from the application featured on the Galaxy S3 introduced in 2012, according to the sources. It is also developing the application with a voice user interface. The two global automobile makers have already formed a partnership with Samsung.

Source: Samsung

2015 Chevy Cruze features 4G LTE and Siri voice recognition

The 2015 Chevrolet Cruze will showcase greater connectivity—including new Text Message Alerts, Apple Siri integration and OnStar 4G LTE with available Wi-Fi hotspot, in addition to revised exterior styling, enhanced interior convenience. The enhanced connectivity features for the 2015 Cruze include a new Text Message Alerts feature for smartphone users with Bluetooth profile which reads incoming texts through the vehicle's speakers, and Siri Eyes Free for iPhone iOS 6 and iOS 7 users. The Chevrolet AppShop allows owners to view all available apps and download them directly to the vehicle, then organize, update or delete them as needed. Available apps connect drivers to vehicle data, music, news, weather, travel information and more.

Source: Chevrolet

MINI adds new Connected XL Journey Mate app

Source: MINI

The new 4-seater MINI has launched Journey Mate app as a part of its Connected XL suite of services. This new app not only helps the driver with navigation but also supplies individually tailored information on the road, adapted to suit the current driving situation. The system knows the driver's preferred route, reminds him when it is time to refuel, messages him about impending appointments or planned telephone calls, reports traffic information in real time, assists in locating parking spaces, and directs the driver on foot to his final destination. All these features are displayed on the MINI's 8.8-inch on-board monitor. The system is navigable via the new MINI Touch Controller and multifunctional steering wheel buttons and is intuitive and simple to use.

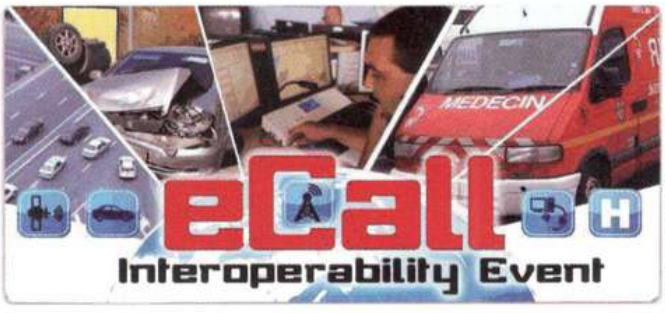
Fiat introduces eco:Drive Social community app

Source: Fiat

Fiat launches eco:Drive Social, an upgraded version of its eco:Drive app that gives drivers a better perception of how their driving style influences consumption and the emission of pollutants. As you drive, eco:Drive collects all information on how you handle the vehicle and its efficiency. The data is processed and the driver can analyse the consumption and emissions on each of their journeys as well as receive advice. eco:Drive "Social" is a community-based app for all the users of eco:Drive (approximately 95000) who may want to share their eco-friendly performance on Facebook or Twitter with friends across the globe. The app is available for free download at www.fiat.com/ecodrive.

ETSI and ERTICO to organize the 3rd eCall TESTFEST at Spain this year

The 3rd eCall TESTFEST event, organized by ERTICO- ITS Europe and ETSI, will be held from 27-31 October 2014 in Vigo, Spain. This event will be hosted by CTAG in cooperation with CETECOM. The eCall TESTFEST event enables vendors to run interoperability test sessions using test descriptions provided in approved guidelines. It will bring more value with the debriefing sessions where experts can answer technical questions or solve interoperability issues. All test results were reported using the ETSI



Source: ERTICO

test reporting tool. This allowed all participants to receive a report with the results of all test sessions they attended At the eCall TESTFEST event last year, more than 30 vendors benefited from more than 300 test sessions to check the interoperability of their IVS or PSAP devices.

Audi launches MMI connect app that syncs directly with the 2015 A3 model

The owners of the all-new 2015 Audi A3 can now use their smartphone to enhance their ownership experience with the Audi MMI connect app. The app will sync directly with the available MMI Navigation plus to elevate features both in and outside the car. The MMI connect offers a unique feature of address-less navigation assistance. They can select any geo-coded picture from an existing picture album on their smartphone, or take a new picture on the spot, and send it to their car. Once in the car, drivers can browse through the photos and navigate to the destination where the photos were taken. Another important feature is the Car finder that lets drivers access their vehicle location through the App in parking and garage areas.

Source: AUDI

Nissan Murano will be offering HD Radio Technology powered by iBiquity

Source: Nissan

Nissan announced at the 2014 New York Auto Show that the 2015 Murano will offer iBiquitie's HD Radio Technology. The Murano is the first Nissan vehicle and overall the 35th vehicle to offer the HD Radio digital AM & FM experience to drivers. HD Radio Technology is subscription free broadcast radio which delivers significant benefits for drivers such as crystal-clear sound quality, song title and artist name; additional digital only local FM channels. It also allows listeners to store the song information with the touch of a button for later purchase and download through iTunes or Android.

Subaru adds iHeartRadio to StarLink infotainment system

iHeartRadio will be available in Subaru's new StarLink infotainment systems. Through the integration, Subaru drivers will be able to listen to iHeartRadio's library of 1,500+ live radio stations, catalogue of 450,000+ artists and 18 million songs to create Custom Stations right from the dashboard extending the car radio experience to even more listeners across the country. It will include safety-minded features to help minimize driver distraction with a simple interface designed to provide seamless access to the digital service in-vehicle.

iHeartRadio's app is completely free, with no subscription required. Besides Subaru, it is now available in Chrysler, Ford, GM, Lexus, Nissan, Toyota, Jaguar Land Rover, Volvo and Kia vehicles, as well as after-market head units including Clarion, JVC, Kenwood, Pioneer, AT&T Drive and the recently announced Apple CarPlay.

Over 45% of new cars come with DAB digital radio as standard

According to a study by Society of Motor Manufacturers & Traders (SMMT), 45.2% of new cars in 2014 came with DAB digital radio as standard, up from 42.8% in 2013. In March 2014, 45.5% of new car registrations had DAB as standard (212,000), up 41% from March 2013 (144,000). This growth reflects the ongoing support for digital radio from vehicle manufacturers and means we are on track for

50% of new cars coming with DAB digital radio in the second half of 2014. A major two-year programme of DAB coverage build out is now underway which includes doubling the number of local DAB transmitters (around 200 new transmitters) to get local DAB to FM equivalence. This programme will also focus on the UK's major road network and the local DAB expansion alone will bring 6,700km of roads.

Pioneer announces first aftermarket Apple CarPlay system through FOTA update

Pioneer announced five aftermarket options for customers to install Apple CarPlay system in their existing vehicles this summer. CarPlay support will be come via a Firmware over-the-air (FOTA) update to Pioneer's new NEX in-dash multimedia receivers, featuring large in-dash LCD displays that can be installed in most existing vehicles. It means users will have Siri voice control for making and receiving calls, reading and responding to text messages, using Apple Maps for navigation, and listening to music, podcasts and iTunes Radio. The entry-level option starts at $700.While more fully featured models will be priced at $750, $900, $1,200, and $1,400.

Source: Pioneer

Shanghai OnStar upgrades voice and Mobile App

Shanghai OnStar introduced an upgraded voice recognition system at Auto China 2014 in Beijing. The upgraded voice recognition system includes the new Traffic on Demand service, which makes it easier for subscribers to obtain real-time traffic information. It has an innovative visual design and fast registration process that enhance operability and connectivity. Subscribers only need to verify their vehicle's chassis number or ID number and those subscribers who are not OnStar subscribers can become potential subscribers through the standard registration process.

In addition to this, an upgraded vehicle theft alert was also created to help users to receive notification through a follow-up call on the mobile no. feeded during registration.

French government recommends Uber to ban the use of maps

France may force online car-service companies such as Uber Technologies Inc. to forgo providing maps that pinpoint nearby cars-for-hire in their popular apps, the latest twist in a battle that has spread across Europe between traditional cabs and the car-hailing apps. A government-commissioned report, "A Taxi for the Future, Jobs for France" proposed the in-app map ban earlier this month as part of a menu of recommendations.

Under pressure from traditional cab drivers in the country, a new law was introduced that required Uber and its likes to wait 15 minutes before picking people up, giving normal cabs a better shot at landing the business.

Source: BBC

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HOT

GPS/QZSS
16.0 x 16.0 x 6.45mm
High Sensitivity -165dBm
Default baud rate 9600bps
Voltage 2.8V to 4.3V Typ 3.3V
Low power consumption: 20mA@Tracking mode; 25mA@Acquisition mode; 7uA@Backup mode

L76 GNSS

HOT

GLONASS/GPS/QZSS
10.1 x 9.7 x 2.5mm
Very low Power consumption
Easy technology without external EEPROM
Pin to pin compatible with GPS L70

Quectel Wireless Solutions

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