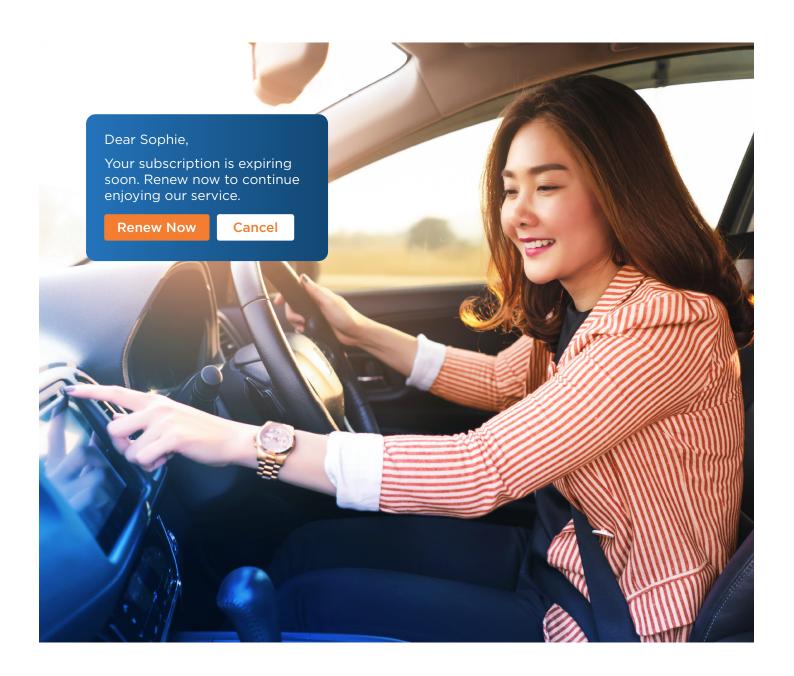


TATA COMMUNICATIONS MOVE™ RENEWAL ASSURE

Unlock new avenues of revenue generation

By improving customer satisfaction and retention rate of connected car subscription services



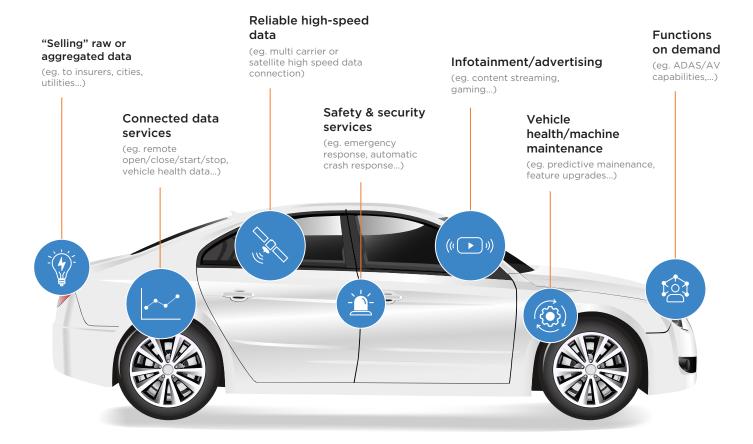
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The potential revenue opportunities and customer experience benefits from connected vehicle services are growing at a phenomenal rate, with no signs of slowing down anytime soon.

From the more traditional and data-focused services, including predictive maintenance or usage-based insurance, to new customer-focused and tangible features such and seating/steering heating and assisted driving, the customer now can adapt and mould the vehicle experience around their needs throughout their life with the car. A McKinsey¹ study on trendsetting car buyers shows that around 40% of respondents are willing to change car brands for better connectivity features. It is becoming evident that the ability to remain connected is no longer a luxury for most consumers, rather it is becoming an expectation, and one that applies when travelling by car.

Typically, connected services can be divided into three broad categories: infotainment, telematics, and vehicle-to-everything (V2X). Undoubtedly one of the most enjoyed capabilities that connected vehicle services provide is Infotainment. From listening to a favourite playlist, allowing the family to stream the latest movies, or simply finding convenience with navigation, parking, electric vehicle charging, or up-to-date news & weather, Infotainment has the broadest appeal and uptake with customers today.

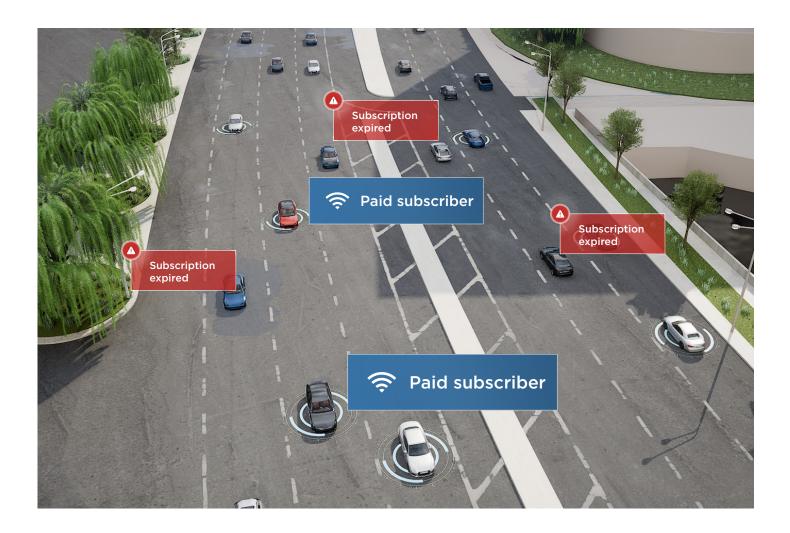


As consumers become more accustomed to connectivity, there is massive opportunity for automotive OEMs to monetize the related connectivity data, delivering unique consumer experiences, upgradable software and service subscription models, advertising, and usage-based services (Insurance, Road Tax, Leasing etc), to name just a few.

Access to vehicle data becomes pivotal to harvest this opportunity, from providing users with basic features like real-time usage services, vehicle performance monitoring and predictive servicing, through to using this aggregated data for R&D purposes - the vehicle user data can expedite hundreds of hours of testing and avoid stillborn UX/UI software concepts or upgrades by monitoring acceptance and use.

Although connected services are meant to empower customers and provide an unparalleled experience, customers also often fail to realise the true potential and hence use these services only during the 'free trial period which historically has been for a limited duration, such as one, two, or three months combined with data capping, thus limiting their experience.

It's a worrying contrast with a McKinsey's 2020 consumer survey¹ on autonomous driving, connectivity, electrification, and shared mobility (ACES) where it was noted that consumers see tremendous value in connectivity and 37 percent of respondents demonstrated that they would switch car brands to achieve improvements in this area. 39 percent of consumers were interested in unlocking additional digital features after purchasing a vehicle—a figure that rises to 47 percent for customers of premium OEMs. Research by General Motors³ also found that consumers are willing to pay \$135 a month for connected services during the lifetime of the vehicle.



So why is connected vehicle data subscription renewals uptake so low?

Challenge with subscription renewals

Take-up of OEM-provided connected services is disappointing

It is no surprise that the potential of connected market is huge - the number of connected cars is set to increase to 352 million by 2023, and this growth is expected to be associated with a rapid proliferation of data, from 33 zettabytes in 2018 to 175 zettabytes in 2025².



Low usage rate is a cause for concern!

While monetizing data is a major potential revenue stream for OEMs, they need an adequate customer base that is using their services heavily in order to make use of this opportunity.

The downside is, neither the customer base nor the usage level is sufficient at the moment.

In a survey conducted by Capgemini², it was found that OEMs' connected services are not sufficiently attractive to customers yet. Respondents in the survey said that they do not see added value from built-in connected services provided by OEMs compared with using their smartphones. As a result, not only are the services unprofitable, but more importantly the OEMs risk losing control of customers and their valuable data.

Additionally, there's tough competition from tech-players like Google and Apple, who offer a familiar UI and the service can also be directly integrated into the car via CarPlay or Android Auto interface. It not only

keeps customers' account and preferences in sync, but also ensures customers' digital life is uninterrupted. The advantage these companies have is that they have already gathered insights from customers and use those insights to create services that customers want. They treat the car as just another entity in the hyperconnected digital network and ensure that connected services fit in seamlessly. Customers do not seem to be bothered by the fact that the connected vehicles services are not directly provided by their car manufacturers, instead require a phone connection.

Since relatively few customers extend their connected-service packages beyond the initial trial period and as automotive OEMs struggle because customer interactions with smartphones and other consumer technologies continue to raise the bar, automakers must compete not only against their automotive industry rivals but also with the best high-tech players.

Is there a solution?

To encourage the customer to use Connected vehicle services, you need to:



Generate customer interest and differentiate your service



Build an ecosystem

The closest competitor to the connected car services – the smartphone, collects a lot of customer data and many connected services are already available on customers' smart phones – that might also appear to be free but often are paid for with their data plan. These services are also personalized to customer preferences. Also, unlike smartphones the automotive ecosystem is still under-developed. You need dependable partners, so that you can focus on your core competencies and differentiators.

Undoubtedly, the most popular connected car apps include music streaming, navigation, and weather updates. By 2025, it is projected that the global market for in-car infotainment systems will be worth \$53.8 billion⁴.

A survey by Vericast⁵ found that 50% of respondents would like to stream during long-distance trips. Streaming would also be particularly desirable in self-driving vehicles. In the survey 41% said they would watch streaming television via a screen on the car's centre console, 24% wanted to watch on a head-up display projected on the windshield.

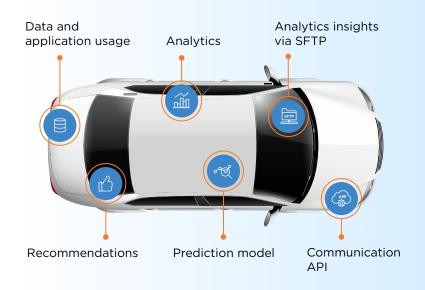
Interestingly an Automotive Disruption Radar (ADR) Survey⁶ shows that the propensity of a user to buy infotainment/connectivity on a pay-per-use model is ~10%, and this is primarily due to a lack of actionable insights and personalized packaging which is exactly what Renewal Assure is designed for.

Unlike smartphones, until recently automotive OEMs were unaware of application usage patterns in their connected vehicle services – failing to provide customers what their customers like to consume - impacting subscription renewal rates post the free-trial period.

Gone are the days of assumptions! Now you can take a data-driven approach to provide your customers with complimentary or discounted access to apps they are most likely to like and consume.

With Tata Communications MOVE™ Renewal Assure, you can analyse connected vehicle data consumption. This enables you to get insights into "How" much data your customers need and "What" applications they are using, so as to provide your customers with tailor-made plan that not only fits-in their budget, but also fulfils their needs. With the ability to aggregate at a global, regional, or market level, the capability can drill-down into specifics like localities and even individual vehicles. With the power this intelligence offers, you can provide the exceptional service and experience that your customers want from their connected vehicles.

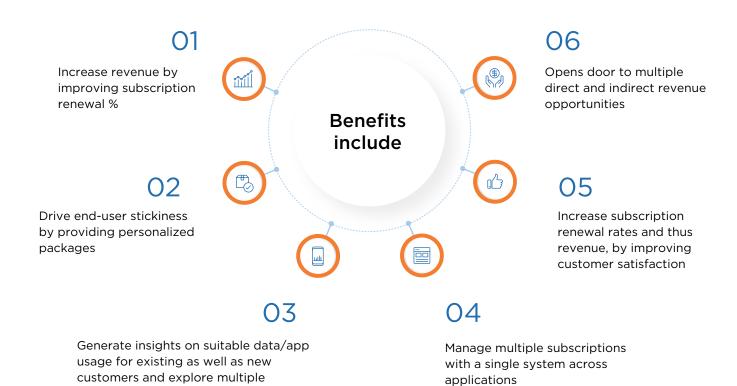
Product capability



Customer benefit

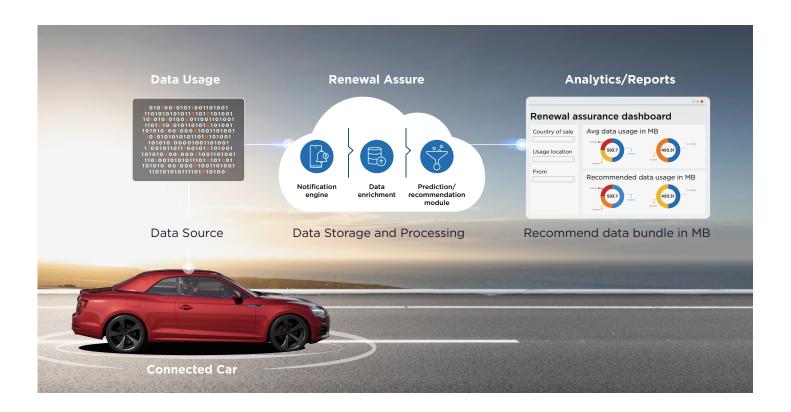
- Unlocks additional revenue streams for customers by identifying highly engaged end users
- Analytics to establish/retain partnerships with selective vendors that add value
- Insight into data and app usage to optimize free subscription costs
- Enable customers to enhance UX by driving programs that improve brand loyalty

Tata Communications MOVE™ Renewal Assure empowers you with valuable insights thus enabling you to leverage connected vehicle data for developing campaigns / offer deal that would improve customer propensity to renew their data subscription plans.



revenue models: Pay-per-use, bundling

with other services etc.



Why does it matter?

Every moving part and every action taken by a car or driver can generate data, from driver behaviour as indicators of mood and stress, to consumption, navigation, and application usage. The overall automotive data services market (by 2030) is expected to deliver \$250~400 Bn¹ in annual incremental value and a vast majority of vehicle data monetization opportunities are during the ownership/operations cycle – but only a few automotive manufacturers are realising the full potential. Data is becoming a multi-billion-dollar opportunity and a recent Capgemini research² shows that:

In Europe alone, there are currently 57 million connected cars and by 2030, there will be more than 230 million. Today, the revenue generated from data and data-related services in the automotive industry is around €0.35 per vehicle per month which will rise tenfold to €3-4 by 2030.

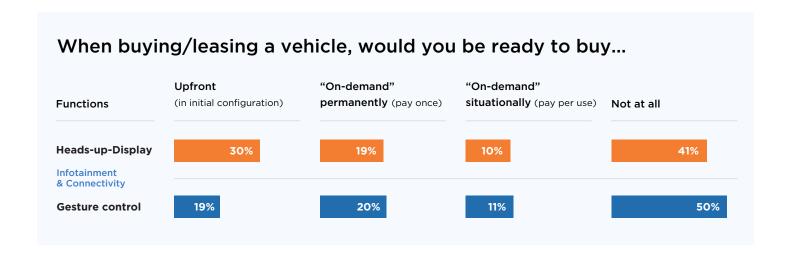
An autonomous vehicle could be generating close to 100 TB of data a day by 2025 (for reference, a Tesla Model S using Tesla's self-declared semi-autonomous functions generates about 4 GB per day). That's a lot of data and it begs the question of how much of this data is valuable and relevant.



Very few automotive OEMs have been able to monetise the vehicle data successfully. Of the companies that have been successful in this field, one of the things they do to differentiate themselves is focusing on monetisation throughout the vehicle life cycle through recurring revenues from monthly subscriptions, such as those for premium connectivity services, and paid over-the-air (OTA) upgrades.

Remember!

A new car purchased today will be on the road, on average, for more than 10 years. In addition to monetisation the OEM needS to protect against potential cyber-attacks which means that the OEM must look at additional revenue streams which might not be in existance today.



At the moment, there are three main factors influencing automotive OEMs towards deploying OTA for their upcoming vehicle launches: High Recall Cost, Autonomous Driving, and Safety (Cybersecurity).

However, automotive OEMs are already installing electronic systems in vehicles to meet customer expectations of luxury and safety. Vehicles are equipped with electric seats, auto-dimming mirrors, automatically adjustable mirrors, cruise control, LED lighting, advanced infotainment and navigation systems, parking assistance systems, powertrains, and battery management systems for EVs, Anti-lock Braking (ABS), and Electronic Stability Control (ESC).



Data and subscription is key to keep the additional revenue coming in and thereby drive brand loyalty.

Tata Communications MOVE™ Intelligent Connected Vehicle Platform

Renewal Assure is part of the Tata Communications MOVE™ Intelligent Connected Vehicle Platform, used by leading Automotive OEMs for quick & easy deployment of connected vehicles in new geographies. It provides a single interface to manage and integrate with the connected vehicle ecosystem whilst enabling an in-depth understanding of the status of all connected vehicles and delivering peace of mind with end-to-end, best-in-class protection and security.

We can empower you with **connected intelligence and you to unlock and scale new revenue streams** by empowering you with analytical data, which helps to improve end-user activations with personalized infotainment services that consumers would like to use.

Armed with regionalized service consumption data, you will have better visibility over the cost and viability of content providers and know what features to push out to different vehicles to boost the lifecycle value.

The future of in-vehicle connected services

Connected vehicle services is an incredibly exciting market that will have a huge impact on your long-term business. You must approach these services with an element of caution. It is not always about the most exciting offerings, but the ones that best meet the end-users' needs.

In conclusion, the ongoing exploration of future possibilities for vehicles, coupled with their transition into moving computers, indicates a remarkable transformation. As technology continues to advance, we can expect vehicles to further enhance our experiences and redefine our relationship with transportation.

Reference:

- Unlocking the full life-cycle value from connected-car data by McKinsey, 2021
- Connected Vehicle Trend radar 2 by Capgemini, 2020
- Article Subscriptions to Connected Services in Vehicles May Add Up to \$135 a Month
- Connected Car Statistics, Trends And Facts by Abdalslam, 2023
- Article- Consumers Looking Forward To Streaming Video in Cars, Vericast Survey Finds
- Automotive Disruption Radar (ADR) Survey
- NHTSA The National Highway Traffic Safety Administration is an agency of the U.S. federal government, part of the Department of Transportation.



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