



# in the DRIVER'S SEAT

Automotive News

## MAKING SENSE OF SOFTWARE-CONNECTED VEHICLES

The emergence of software-connected vehicles will bring even more changes to an auto industry already racing to keep pace with evolving business shifts and unprecedented upheaval. How will these vehicles redefine the relationship between customers, dealers and OEMs? And will OEMs be able to monetize the reams of data these vehicles will provide? For answers, In the Driver's Seat turned to Jaydip Mukhopadhyay, vice president and head of Wipro's automotive business in North America. Mukhopadhyay is responsible for driving overall business growth in the region, as well as building strategic partnerships with leading automakers, Tier One suppliers, captive finance organizations and dealer groups.

**Q: There's obviously a lot at stake and a lot of opportunity for automakers regarding software-defined vehicles. Let's put ourselves in the shoes of the customer for a moment. Walk us through a day in the life of the owner of a fully software-defined vehicle. How different will that driving experience be?**

**Jaydip Mukhopadhyay:** The experience for customers with software-defined vehicles will be transformative, to say the least. What we experience today, or what we can do with our vehicles today, will completely change in terms of how it impacts our lives. Let's take a day in the life scenario. You wake up in the morning and start walking towards your vehicle. The vehicle recognizes you and sets up your seating. It adjusts to your entertainment preference, your e-commerce needs – it becomes your companion. You start driving and based on the state of the battery charge, it helps you to spot the nearest charging station and guides you there via the car's navigation system. Yesterday night's over-the-air (software) update identified a certain degradability on one of the components. It informs you at the right time, tells you what needs to be done and sets up an appointment with your preferred dealer. When you're returning home from work and as you near your home, it automatically sets your thermostat and opens your garage door and lets you in. These are amazing and impactful changes that will happen to our day-to-day life. Over a period of time, these over-the-air updates in the vehicle will keep the vehicle so fresh. It will never become an old vehicle that loses its value over its lifetime. It will become a "living" vehicle along with being your companion as long as you own the vehicle.

**Q: What about dealers? How will their relationship with their customers change or benefit?**

**Mukhopadhyay:** In this new normal, the dealerships will have to readjust themselves because traditionally, the dealerships used to be our only point of contact as customers. With software-defined vehicles, so much of data goes to the OEM, which creates a direct connection with customers. They have to learn to use that data to construct their strategies for sales and marketing, inventories, pricing strategies, etc. Dealers also have to understand how to work in this new ecosystem of software owned by the OEM. OEM software teams that have developed the code will primarily do the software servicing and the dealers will do the hardware servic-



To watch Emma and Jaydip's conversation, visit [autonews.com/wiprovideo2023](https://autonews.com/wiprovideo2023).

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ing. This difference, or coexistence between a digital and physical service lane, is going to be the new normal. And dealers will have to learn to coexist. The dealerships' service personnel will have to learn a lot about the software in the car. And I think the dealers will gradually mature. Even if many people say that the dealerships' influence will gradually decline over time, I personally believe that the dealerships will continue to remain as one of the most important stakeholders to improve and manage customer relationships.

**Q: There's so much data that can be collected from vehicles these days. How are the smartest automakers using that data as a positive feedback loop to continue to improve the customer experience?**

**Mukhopadhyay:** The biggest gainers in this new ecosystem are the OEMs. They are collecting terabytes of customer data. The amount of data they capture should give them huge insights into what features to finally put in which model mix. They'll know what kind of parts are having quality issues, so they can reduce recalls; what kind of field failures are happening, so that they can reduce warranty costs; and the kinds of customer experience and safety and security features customers willing to pay for. They'll need to build a robust feedback loop within their organizations to use this data effectively. But I believe this is going to help improve the profits of the OEMs in due course.

**Q: Let's talk about how OEMs are planning to monetize the software and connectivity features as well as the data. What's your view on how this changes the economics of what has been a relatively stable set of inputs and outputs for decades? When will we really start to see significant sources of revenue emerge?**

**Mukhopadhyay:** Key data monetization has been discussed for a very long time, but have the OEMs really mastered it and started getting benefits out of it? I think they have a long way to go. Having said that, there are a couple of very interesting points to consider. First, the features that are being offered by the OEMs are either not very interesting to the customers or they are offered for free through our smartphones. So, OEMs have to really think about how to go above and beyond for the customers to make them willing to pay for features. Number two, the OEMs of today operate in vehicle-function siloes. To make a proper use case or a comprehensive scenario – make it work for the customer – you need to transcend these challenges that large organizations have internally. Third, auto manufacturers today are building one-to-one agreements with third-party merchants. But to really make this work, you need to have a many-to-many relationship model and build an ecosystem of partners and merchants. Now, all of these things are leading to a slow progress of the data monetization that really is needed. Having said that, this is an area that I believe is going to grow exponentially in the future, provided some of these things mature fast. There will be scenarios where automakers are able to offer real people use-services that are subscription-based and generate new revenue streams. And I am confident that OEMs will mature and make this work.

