



## CES 2021

# THE FUTURE OF MOBILITY SERVICES: HOW SMART, CONNECTED TECHNOLOGIES ARE REVOLUTIONIZING INDUSTRIES

### VIDEO TRANSCRIPT

CES 2021 is almost here!

**BRIAN IRWIN:** Hello everyone. I'm delighted to welcome you to the Accenture Panel on the Future of Mobility Services here at CES. I'm Brian Irwin and I lead Accenture's Automotive Business in North America. On behalf of our entire team, I'd like to welcome you to CES. This year's event is a special one in every respect. Although, our industry was already in the middle of the greatest disruption since the invention of the car. The past months have shown us all that there is more, far more to come.

We're seeing acceleration in the development and adoption of new mobility and connected services, a rapidly evolving narrative around sustainability and the emerging convergence of the broader ecosystem.

And it's this last point which we'd love to discuss today, and I can't think of a better place to do this than CES. After all, CES is the home of convergence, the coming together of the latest technologies in the service of solving real human needs and real human problems. It is the place where we get a glimpse of how the world of tomorrow will look.

We have some amazing guests with us today here to share their perspectives on the Future of Mobility Services and how smart connected technologies are revolutionizing industries. I'm delighted to welcome Sanjay Ravi, who's the General Manager of Automotive Industry at Microsoft and the Chief Information Officer of Fiat Chrysler, North America and Asia Pacific, Mamatha Chamathi. As well as my dear colleagues, Emily Weiss, who leads Accenture's Travel Business and our Automotive Global Industry Lead, Axel Schmidt. And now, let's get things going. Over to you, Emily.

**EMILY WEISS:** Thanks, Brian. So here's a photo of me on my last vacation. Remember those, right? Well, I went to Canyonlands in Utah and this specifically is at Dead Horse Point State Park. It was absolutely stunning. It was everything we dreamed of.

What this image can't show you, however, is that we booked out flights with one company and flew with another, using points from the company that provides my credit card. We never spoke to the hotel before we arrived, which might explain why we didn't get the room we wanted. Fortunately, there was no language barrier that often occurs with international travel.

On the way home, the airline lost our luggage. And between the ground services provider, the airline and our insurance company, it took over a week to resolve. I think you get the picture. Despite how common it's been, the fact that we can move around as easily as we have is a minor miracle, but things are changing and fast.

Traveling to a far-off location where you don't know the language, the social and cultural norms, local transportation options, etc., may not seem like a big leap for most of us, especially those who consider ourselves road warriors. But imagine how insurmountable this must feel for the infrequent traveler.

**AXEL SCHMIDT:** There are many definitions around mobility in the market. In short, if we think about mobility as the movement of people and things from A to B, then mobility is heading for a revolution.



On the one hand, as consumers, our expectations around products, services and sustainability are rapidly evolving. The move to digital support as with one touch instant gratification and context around hyper personalization. Everything is connected and always online.

Personal values, like sustainability, have become a driver of our decision making. Cities and entire countries are talking about banning cars with combustion engines. California will prohibit registering a new car with a combustion engine from 2035 onwards. And the term flight share is now entering the common vocabulary.

Robotization created the perfect ground to share things we never thought of sharing: our house, our car, even our clothes. Increasingly, we favor experiences over own products.

We wanted to extract more from less, driving greater value from those experiences and making the most of our available time. And we wanted to protect our health safety and security in a world of increasing uncertainty, especially in time of COVID.

On the other traditional side of business models are under attack from the emergence of platform plays from the technology sector. Tesla has been moving barriers to electromobility and the car as a true connected serve device within a service ecosystem.

Waymo is a company who is most advanced in autonomous driving and never built a car. Airbnb is making it possible to stay where I want to, when I want to and how I want to. Google Flights help me find the cheapest flight without ever having to talk to an airline.

And Uber means I never have to think about how to get where I'm going on the ground.

And this guy here, COVID, act as the catalyst for the changes that we're seeing and accelerates trends like the digitalization. Touchless pay, Automation, eCommerce and delivery, Online and pop-up medical services, Remote and VR experiences and Micro-mobility.

EMILY WEISS: So, for both our industries, we're experiencing deep disruption on multiple fronts. Companies are trying to catch up to more nimble digital first players that don't have to deal with over a century of technological debt and outdated operational models. Manufacturing competence and functionally oriented hardware engineering once delivered a competitive advantage but is now table stakes and old hat.

The custom-built solutions that have powered the travel industry make it difficult to transition to cloud solutions. They're entering into business models that draw on competencies that they didn't previously have. For example, Marriott is entering the experiences market and health and in others are adopting a new workspace model.

When you generate some shifts from hardware to services, 22% of the entire automotive related revenue by 2030 will come from digital business models. Car makers are trying to get into the service space. It was only a few weeks ago that the Lynk & Co brand launched their vehicle essence of subscription service from a storefront in central Amsterdam, even for these business models are yet to be proven. Vehicles are seen as a control point to access a platform, an open battle for controlling the customer access. Finally, technology platforms are trying to cut them out of the relationships that they have traditionally held with customers. Meaning that the loyalty they once enjoyed is under constant attack.



In automotive, there's a catch economy for this disruption, CASE. What does CASE stand for? Connected is a precondition to offer any kind of services. Autonomous would be the big game changer when you can leave the driver out, which is the highest cost factor, of course. And CASE can be operated at 20% of the today's cost per kilometer. In addition, you can sell a lot more services to the people in the car like streaming Netflix and gaming. Shared mobility has a chance to increase car use from 10% to over 50%, which is another big lever for use at cost per kilometer. It also reduces the number of cars in the streets, the amount of surface that cities need to dedicate to traffic help with sustainability.

Electrification is the most important step to a local carbon free footprint and heavily supported by governments around the globe. An electric car is also preconditioned for autonomous driving as it is built with a much less complex architecture and easier to operate and monitor during driving.

CASE acts as an enabler of this new mobility ecosystem that is emerging. And many companies are fighting for the ownership of the customer touchpoint. The right to offer these services and to capture the revenues from the new service, be it insurance, entertainment, ride tailing, gaming, etc.

EMILY WEISS: So what are we to do? The thing about a century of experience is that we and our clients have enormous expertise, but our challenge is how to take that expertise into new arenas, to open up new opportunities and define new revenue streams. Cast your mind back to my opening story and I think you'll get a sense of what those opportunities could be, but we can't do it alone. We need to work with new partners in new ways. We need to converge.

But what do we mean when we say convergence? For us, convergence occurs when the experiences we want to offer to customers and our future growth opportunities demand that we combine the expertise and experience of other industries with our own in new types of partnerships.

So practically speaking, what does a convergence future in mobility look like?

AXEL SCHMIDT: Technologies at the heart of the mobility revolution. Software defined vehicles through the product. Product to service through the business model. Digital channels through the experience. Data through the ecosystem.

EMILY WEISS: So here are some questions to get us thinking. What if we could make travel carbon neutral? What if your ride became your meeting room, your bed, your office, your clinic, your bar, your cinema, your childcare or your restaurant? What if it was possible to book a journey from door-to-destination-to-bed in one step, no matter the mode? And what if we booked a trip by selecting an economy, premium or first-class filter rather than a brand? These are all hugely compelling consumer propositions that respond to the trends we outlined earlier, but they also represent just a tiny slice of what will be a \$15 trillion market over the coming decade. To realize your value will require the worlds of travel and automobility to converge like never before. But for those players that can, the commercial opportunity is huge.

AXEL SCHMIDT: In the convergence of automobility and travel, our significant societal, environmental and economic benefits. Reduce cost to consumers and operators, more quality time per activity, increased personal safety, individual and industry sustainability and last but not least, democratization of mobility.

The challenge will be how we position ourselves and our partners to take advantage of them.

Brian, back to you.



**BRIAN IRWIN:** Thank you, Axel, and thank you, Emily. That was very interesting. Now, it's amazing to see how the mobility industry is responding as customer expectations change and it's fascinating how industry convergence is opening up new perspectives and new opportunities.

To help us understand those opportunities and to help make them real, I'd like to turn to our guests and I'd like to start with you, Mamatha. First question, the convergence into the mobility ecosystem is ripe with opportunities. How are you positioned to take advantage of them?

**MAMATHA CHAMARTHI:** Thank you, Brian. Today's customer is not only connected, but expects everything to be personalized. If you look at some of the things that we have done in shaping or reacting to customer's expectations, as we were getting into the pandemic, most customers were hesitant to go to the dealerships and most of the dealerships by the middle of the crisis were closed. So, we launched two weeks into the crisis, we launched an online retail experience, an easy way to configure a vehicle, shop for your vehicle and test drive and buy the vehicle. If a year ago, you would ask me how many of your sales would be online, I would really be scratching my head going maybe close to zero. But today, north of 30% of our sales come through our online experience and are contactless and touchless.

That's I think a great example of how we are pivoting to align to the changing expectations of the customer.

**BRIAN IRWIN:** That's interesting. It seems that agile is very important right now.

**MAMATHA CHAMARTHI:** And agile for me is not agility in our IT team or in a small digital team, but agile is from the – I keep telling our leadership it is from the top floor of decision making to the shop floor. Everything has to be agile.

**BRIAN IRWIN:** How do you see the importance of customer data evolving over the coming years? What opportunities will you see emerging from the value of customer data? And maybe, what role does the car operating system play?

**MAMATHA CHAMARTHI:** There are infinite number of opportunities with customer data. And so, at the Fiat Chrysler we have invested in an initiative called customer data platform to collect all of the customer data into a single source of truth. Just learning that they had a great experience or not so great experience helps us personalize and this customer data platform helps us to mass personalization at scale. And using all of the channels to make that seamless messaging across the multiple channel. So, a seamless omnichannel experience.

**BRIAN IRWIN:** They say that data is the new oil, and it seems that your team is operating that way?

**MAMATHA CHAMARTHI:** Yes, I think at FCA, you see most of the retail vehicle industry have initially adopted the customer data platform. It's interesting that we at Fiat Chrysler have got to that level of personalization with our customer. So, if you're buying a \$1,000 dress and you get a personalized experience. Now imagine you're buying tens of thousands of dollars' worth of a car and you'd like a better personalized experience and that's why we are anchoring ourselves to that expectation of the customer.

**BRIAN IRWIN:** Given some of the convergence scenarios proposed in the keynote earlier, what do you think are the biggest challenges the automotive industry will need to overcome to make them real?

**MAMATHA CHAMARTHI:** We, in the automotive industry, we are very product centric. We love our products. So, I think moving from and transforming ourselves from product centricity to customer centricity or I would say building on top of the great brands we have to move more to what's customer and aligning ourselves to the expectations.



So, again, aligning ourselves to the expectations also means everything becomes software defined and enabled by hardware, enabled by the vehicle architecture. And for us, we are so used to three-to-five-year long product cycles and delivering all of even the connected features at once as we introduce the next new model year. And for us to go into let's not launch all of the features, but go into this continuous value delivery is a completely different kind of a mindset that we are not used to.

So it gets to our fundamental way of thinking about our product and launching the product into the market. This is where the technology companies are very strong. They have skills at scale and that is the biggest competition that we are seeing to the automotive industry where we need to very quickly build the skills and that we need to change ourselves at such a fast pace that we are not used to. Because the continuous operations improvement mindset that we have been using for the last 100 years will not get us to the digital age of customer expectations.

**BRIAN IRWIN:** What gets you really excited about the future of the industry? And what is it going to take for OEMs to take advantage of the opportunities ahead?

**MAMATHA CHAMARTHI:** What gets me excited? So when I joined the automotive industry, technology was fundamentally a back office function. You know, no one cared about an IT strategy. I would say, I cared about it, many of our leadership team and the IT cared about. But, today, technology and digital is the backbone of the macro trends that we are seeing in the automotive disruption, whether it is autonomous, electrification, shared mobility. It is all possible because the car is connected. And fundamentally, a connected car can drive a differentiation for any OEM.

So technology has moved for me from the back office in my career to front and center in the product and that's what gets me super excited to be sitting in the really front row, not just only watching the action, but shaping the action.

**BRIAN IRWIN:** Certainly, where you sit today, you're definitely in the middle of it all. Sanjay, over to you. The convergence into a mobility ecosystem is ripe with opportunities. How are you positioned to take advantage of these opportunities?

**SANJAY RAVI:** Microsoft is investing and driving innovation in the underlying technology platforms that would support the needs of customers in the automotive and mobility space across connected vehicles, autonomous development, shared mobility.

We see the industry requiring hyperscale, intelligent cloud platforms, as well as intelligence of the edge, to meet their emerging needs of this industry. Automotive organizations across the world are building their own digital platforms and we are partnering with them to help them speed their transformation to being mobility service providers.

The recent announcement we had with CNHI, along with Accenture is a great example of this transformation. Our strategic partnership will help speed CNHI's digital transformation to develop connected industry of vehicles.

The key element of the five-year collaboration that we established is a creation of a global network of digital hubs, where our three companies will work together to design, launch and manage digital services that will help CNHI deliver their own products and services in a smarter, more functional, secure and sustainable way.

The connected vehicles that provide customers with new services and functionalities in a variety of areas, including computer aided farming, predictive maintenance and hands-free management and green transportation. CNH Industry also plans to develop a broad set of data driven digital services to help clients drive sustainability, such as yield improvement in agriculture and more efficient vehicle and improve fleet management in the transportation industry.



So, by complementing its historical product sales-based business model with new digital to run services, CNHI intends to achieve significant revenue growth and we are excited to be part of this journey.

**BRIAN IRWIN:** How do you see the importance of customer data evolving over the coming years and what opportunities do you see emerging from the value of customer data? And maybe, last question, what role do car operating systems play in this ecosystem?

**SANJAY RAVI:** So, Brian, data as we know is the new currency. And Data and AI is playing an important role to tap into what we call as the digital feedback loops from across these connected vehicles and connected products, the whole connected customer experiences, even bringing it down to the connected manufacturing operations.

And all the insights that come from this real-time data is helping companies create very content specific customer experiences and a range of new mobility services. So, one example of this at play is the work we are doing with Mitsubishi Fuso Truck and Bus Corporation. So, every minute of the day, thousands of trucks roll through the streets of Japanese cities, carrying everything from baked goods and packages to repairmen and appliances. Their customers are running their businesses from logistics to retail, to their propriety transportation as well. And they rely on us for information 24/7 support to keep the fleets on the street where is it needed most.

So what Mitsubishi Fuso Truck is doing is they are tapping into real-time telemetry data to help customers manage fleets of commercial vehicles. Their platform truck connect, accomplishes this mission by collecting 80 to 100 telemetry signals per second from each truck and delivering useful analytics back to customers, including data on locations, speed, maintenance codes and fuel efficiency.

So, this has helped Mitsubishi Fuso Truck lower costs, boost performance and improve day-to-day operations using a number of new technologies and one of them is Azure Data Explorer that they use heavily as part of the solution.

**BRIAN IRWIN:** If there's one thing we've learned through our experience with COVID is that customer's expectations can change rapidly. So, I appreciate all the work that your team is doing in that space.

If you think about convergence and mobility, what kind of role can you imagine for the large tech players and where would you rely on your partners?

**SANJAY RAVI:** So, Microsoft is focused on being a technology platform provider in this industry, right. So, our strategy is based on avoiding any business model conflicts with the automotive industry. For instance, we do not monetize our customer's data, nor are we getting into direct competition with our customers by providing any type of mobility services directly to the market. So, there's no business model conflict.

Hence, we are able to partner deeply with the automotive and mobility service companies and we work closely with our partner ecosystem as well to help accelerate the innovation that is needed for the automotive industry.

A great example of this partnership is our work with Accenture around the intelligent fleet solution that we have developed on the Azure platform. So, with Accenture, together we've been able to enable a customer like PT SERA, who are a provider of transportation solution services, per-owned car sales and logistics, to implement a new IoT connected fleet solution, transforming their fleet operations that runs over 25,000 vehicles throughout Indonesia.



So, this is a great example of how the IoT connected fleet solution helped PT SERA realize reduction in logistics costs, increase in revenue through new business models and improvement of their market value, as well as reputation, across a number of major business units.

**BRIAN IRWIN:** Another question for you. What is your roadmap for 2025 and beyond in this space?

**SANJAY RAVI:** So, Brian, our vision is to enable the automotive and mobility industry with cutting-edge technology platforms, driving innovation, both at the edge and in the cloud. So, our customers and partners are embracing these intelligent cloud and edge technologies for their connected vehicle and autonomous development efforts. And also, really fueling the innovation and transformation that is required to support the new range of smart mobility services.

So, we are seeing this technology starting off to supporting the needs of connected vehicle and autonomous vehicles, but we see it quickly evolving to support the full range of software defined vehicles. And that's where the industry's going. We see the vehicles being a part of the broader system that is creating new value streams based on vehicle and mobility data.

So, analyzing this data to get insights to drive the right value for customers and businesses will be key and this is an area that we are focused heavily.

We also see the industries coming together across automotive, telco, logistics, insurance, to create new ecosystems where data will be king and will support an emerging set of smart mobility services.

Finally, we have a great opportunity, as an industry, to use these technology platforms to deliver on the needs of sustainability and also focus on making the society we live in more safer.

**BRIAN IRWIN:** Okay, last question to all four of our panelists. As an industry expert, what advice would you give your 25-year-old-self just starting out in the industry?

**EMILY WEISS:** Technology's changing so fast and you just need to be ready to adapt and adjust to those changes in the future.

**SANJAY RAVI:** So, if I go back, when I went through my education system, going through statistics and data and those things were a needed part of just getting your course work done. And if I were to go back, I would focus a lot more on the kind of studies that I did around data, around statistics and what we broadly call it as AI today. And because we clearly see that becoming very foundational for the transformation that is happening in the industry and also, giving all of us a huge opportunity to address a number of issues that exists in the society today and we've talked already about the opportunity around sustainability, but also use these technologies to make the world we live in a lot more safer, fun and productive.

**AXEL SCHMIDT:** Well, this is a hard one, Brian. In this huge new ecosystem, there's so many exciting opportunities that I can only give you a couple of recommendation. When you tend to be more an entrepreneur, join a start-up. When you be more a technology person, go to a technology ecosystem partner. And when you still be a car guy and love cars, go to a traditional OEM and company and drive this huge transformation process over the next decade.



MAMATHA CHAMARTHI: Something that I have always focused on in my entire career is being very purpose driven. When I look today, purpose driven companies and even purpose driven individuals. Purpose driven companies attract the best talent. So, I think even as individuals focusing on that purpose to make a difference, to find everything - to leave it better than you found it is an important thing that I'll continue telling people and also, to my younger self.

BRIAN IRWIN: Thank you to all of our panelists today and thank you for joining us. Enjoy the rest of the show.

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