

Driving in-car experiences

With high-quality streaming



As the overall experience becomes a crucial differentiator between automobiles, infotainment allows OEMs to reconnect with increasingly distant customers.

Exceptional streaming services can help OEMs create an attractive offer, yet paying for it is challenging. Using new data sources could be the answer if OEMs can manage them responsibly.

How we use vehicles is changing, and with that comes an evolution in what will differentiate cars. The focus is shifting from engine performance to the in-car experience, particularly as the electric vehicle transition accelerates. The growth in EVs is making it a defining feature: the time it takes to charge a vehicle increases the chance that drivers and passengers are waiting at some point during their journey. And, when vehicles have Level 3 automated driving systems, drivers will even have time free when in transit.

Software-based vehicles

Yet this isn't limited just to EVs. More vehicles are becoming primarily software-based, with over-the-air updates and the ability to effectively update the vehicle without returning it to the manufacturer. While this can increase the car's residual value, it also reduces the opportunity to build a profitable aftermarket relationship with buyers. OEMs need to find a way of making and maintaining a connection.

The rise of home-like infotainment

EV-first OEMs, like Tesla, are already investing in the in-car experience, with infotainment systems allowing passengers to watch and play the same films, TV shows and games they enjoy at home. But with those services comes an expectation of quality; few will accept buffering, disrupted viewing or delays in accessing content they're used to seeing at the click of a button.

This creates a dilemma for OEMs – should they allow users to manage access using existing mobile data connections, or should they provide the infrastructure to support high-speed streaming themselves?

Improving the experience

The former assumes the consumer has sufficient data to enjoy the full range of infotainment services while traveling. It also makes the overall experience depend on the users' mobile connection quality – which is outside the OEM's control. While 4G and 5G coverage are extensive in many parts of the world, some areas struggle with consistent connections.

So, if OEMs want to control the experience, they must enable streaming. Yet again, this raises questions about connectivity. Plus, who will pay for it?

“Consumers expect video content should be readily available regardless of the setting. 44% watch mobile video out of their homes at least once a month.”

Omdia

Delivering high-quality streaming connectivity

Connectivity goes beyond ensuring vehicles can make use of 5G networks. OEMs need access to content delivery networks (CDN) to manage services across multiple jurisdictions and licensing markets without disrupting the experience.

The right CDN provides car makers with a cost effective way to maintain low frame freezing rates, ensure low latency, and overall deliver a high quality video experience. They can also deliver enhanced security measures, such as hotlink protection and user authentication to deter cyber attackers.

In addition, OEMs need to build in fallbacks to cover areas where cellular connectivity does not meet infotainment requirements, such as implementing non-terrestrial networks.

This connectivity facilitates more than just streaming. Advanced OTA updates, real-time traffic alerts, and dynamic content relating to local points of interest require consistent, uninterrupted connectivity to function effectively.

Finding a way to pay

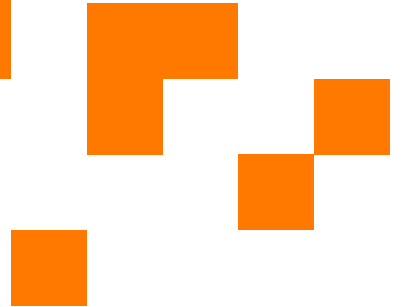
The high cost of streaming, building the infrastructure and delivering the services means that passing costs on to customers would make vehicles prohibitively expensive.

The best approach to supporting innovative new services could be to adopt a business model used for decades to deliver analog infotainment to vehicles: advertising. In much the same way that commercial radio has been funded via advertising for decades, so could streaming.

Of course, radio advertising is mass broadcast, with minimal personalization or audience targeting. Streaming advertising would be different. OEMs can finance high-quality streaming and ensure ads are hyper-targeted, personally relevant and fit seamlessly with the overall in-car experience. And it is here that streaming offers a way for OEMs to deliver exceptional, differentiated in-car experiences and sustain customer relationships that are currently at risk.

“On a per-vehicle level, connectivity could deliver up to \$310 in revenue and \$180 in cost savings per year, on average, in 2030.²”

McKinsey



Role of data

The use of data is key in making the advertising proposition attractive. Cars can gather data on their users through voice, driving behavior, how they choose to personalize the car with settings (such as seat position, temperature and volume) and the apps they use most. Through the use of innovations such as voice artificial intelligence and in-car avatars the vehicle can determine passenger age, gender and sentiment. Are they switching on a children's TV show to keep passengers happy when charging? What are their regular routes? What can be learnt about their social demographic from their buying behaviors?

Granular personalization

As OEMs gather this data, they can personalize the ads customers use. After a regular trip to swimming lessons, a family that often uses voice to order a takeaway might respond positively to delivery company ads. As winter approaches, perhaps the driver that often visits Switzerland would like to be reminded about snow chains or tires or a bundle that includes pre-paid parking and a ski pass. A much-delayed journey might appreciate adverts for the nearest conveniences (and not just the next motorway service station).

Moreover, customers can act immediately, using voice or (via passengers) consoles to respond to the ad. In-car payments could use biometrics to allow payment by voice.

When it comes to servicing the vehicle, OEMs can use ads to highlight their offerings and aftermarket care. This is particularly important in an era when more people are leasing cars (and, as such, more likely to be directed to use the leasing company's preferred partners).

“The EU leasing market will be worth between €31 billion and €34 billion by 2025, up from €25 billion in 2019.”³”

McKinsey

Monetizing data

Gathering and monetizing this data will be critical for OEMs' streaming success, but managing privacy concerns are fundamental. One study found that 46% of consumers believe brands know too much about them, but at the same time, 50% of Gen Z and millennials were comfortable sharing different types of data in exchange for personalized experiences.

OEMs must be upfront about how and why data is gathered so there are no shocks when the first hyper-targeted ads appear. Only using and protecting relevant data should also be a priority – any OEM that cannot protect customer data will struggle to retain trust in its services.

Finding the right partners

To deliver all this requires working with the right partners. OEMs are effectively looking for:



Streaming experts with the knowledge to connect relevant content providers with infotainment systems and platforms



Connectivity providers, adept at ensuring consistent coverage across multiple types of technology, including cellular, NTN and CDNs



Data specialists who have experience in managing, analyzing, monetizing, and protecting data, using customer data platforms that simplify its use for OEMs



Advertising innovators that reach tens of millions of consumers on a monthly basis, utilizing advanced AI and consent management tools



Regional leaders who can navigate the fragmented European market

And who can apply all that to the specifics of the automotive industry.








Five steps to drive streaming success

- 1 Focus on the experience:** Streaming shouldn't be seen as an end in itself, but as a key factor in the overall in-car experience. Does the vehicle have the capabilities to support high-quality streaming, or is it likely to be an expensive addition that is underutilized by customers?
- 2 Find a way to pay for it:** Highly-targeted, relevant advertising offers a way to fund streaming services and deepen customer relationships.
- 3 Use data effectively and safely:** Vehicles gather more user data than ever, offering OEMs a potential gold mine. But it has to be used responsibly and safely; otherwise, customer trust will be lost.
- 4 Don't just rely on 5G:** While 5G networks can support true innovation, cellular connectivity is not always available. The delivery of high-quality streaming will need the support of technology such as satellite connectivity to ensure a consistent experience.
- 5 Protect against different markets:** Particularly in Europe, as cars travel between operators and countries, services are at risk of being disrupted. Access to global CDNs reduces the potential for dropped streaming and safeguards the infotainment experience.



Why you should choose Orange Business

Orange Business has more than ten years of experience working with automotive leaders, supporting traditional and newer OEMs in developing and deploying new business models. Our capabilities include:

-  **Unrivaled streaming expertise**, working with content providers such as Netflix to deliver high-quality entertainment to customers all over the world
-  **A global CDN** to safeguard connectivity and ensure a consistent experience
- 5G A 5G network** that provides a future-proofed backbone to support innovative use of streaming services, coupled with heritage as one of Europe's leading telecom companies to deliver a leading network
-  **Data experts** to manage every aspect of the responsible use of customer data
-  **Advertising knowledge** gained as one of France's Top 10 media buying consultancies, reaching 31 million unique users via its network
-  **Unique mobility experiences** working with the likes of Waze, Mappy, ViaMichelin and Bonjour RATP
-  **A global presence** to support OEMs in any continent as they access new markets

Orange Business is the digital automotive partner for OEMs transforming the car into a smartphone concept.

1. <https://omdia.tech.informa.com/OM025691/Automotive-Media-In-Car-Entertainment-and-Landscape>
2. <https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/unlocking-the-full-life-cycle-value-from-connected-car-data>
3. <https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/subscribed-to-future-auto-finance-yet>
4. <https://www.merkle.com/thought-leadership/white-papers/2022-consumer-experience-sentiment-report/thankyou>