

Renault Group and Google Accelerate Partnership to Develop the Vehicle of Tomorrow and Strengthen Renault Group's Digital Transformation

- Renault Group and Google are expanding their partnership.
- The "Software Defined Vehicle" will bring together the best of the automotive and digital worlds to allow for new on-demand services and continuous upgrades to be delivered to the car, building on the existing Android Automotive Operating System and Google Cloud technology collaboration.
- Google becomes the preferred cloud supplier of Renault Group. The collaboration, initiated in 2018, will be extended as part of Renault Group's "Move to Cloud" digital transformation.

Sunnyvale (California) and Boulogne-Billancourt (France), November 8, 2022 – Renault Group and Google announced today an expanded partnership aimed at designing and delivering the digital architecture for the "Software Defined Vehicle" (SDV) and accelerating the group's digitalization. The two partners will develop a set of onboard and offboard software components that are dedicated to the SDV and will grow synergies and use cases related to the group's "Move to Cloud" strategy.

This collaboration on cloud computing, initiated in 2018, is accelerating today with the creation of a **Digital Twin**, a virtual twin of the vehicle that will feature the most advanced Artificial Intelligence (AI) capabilities, for an easier and continuous integration of new services into the vehicle and the creation of new onboard (**In-Car Services**) and offboard applications. The group will eventually transform its entire operational model to the cloud for more agility, better performance, and higher profitability.

"The complexity of the electronic architecture of cars is increasing exponentially, driven by the sophistication of the functionalities and services expected by customers. Equipped with a shared IT platform, continuous over-the-air updates, and streamlined access to car data, the SDV approach developed in partnership with Google will transform our vehicles to help serve future customers' needs. This will increase residual value and after-sales retention, which are two key drivers of our financial performance, and help Renault to roll out our portfolio of new services. Finally, our strategic partnership with Google will allow us to accelerate our end-to-end digital transformation, from the design of the car to its market launch through its production, and ultimately to bring added value to our customers. With Google, we are going beyond mere cooperation: a software champion and a mobility champion are joining forces to create game-changing technologies."

Luca de Meo, Renault Group CEO

"Our collaboration with Renault Group has advanced comfort, safety, and connectivity on the road. Today's announcement will help accelerate Renault Group's digital transformation by bringing together our expertise in the cloud, AI, and Android to provide for a secure, highly-personalized experience that meets customers' evolving expectations."

Sundar Pichai, CEO of Google and Alphabet

New innovations onboard vehicles

Renault Group and Google are expanding their partnership into a collaboration to develop platforms and services for the future of SDVs. The collaboration includes in-vehicle software to enable the "Software Defined Vehicle" Platform and cloud software to enable a **Digital Twin**.

This collaboration will enable Renault Group to reduce costs, improve efficiency, flexibility, and speed of vehicle developments, and increase value for end-users thanks to continuous software innovation.

Renault Group will expand its use of Google Cloud technology for the SDV to better manage data capture and analytics, securely and confidentially, as well as software development for the vehicle.

This supports first use cases in development, such as:

- Predictive maintenance and better detection and rectification of failures in near real time if necessary.
- A personalized experience onboard the vehicle (**In-Car services**) to adapt to driving behaviors, often-used destinations such as EV Charging Stations, etc.
- Insurance models based on actual usage and driving behaviors.

Combined with the "Software Defined Vehicle" Platform and its **Car Data Platform**, Renault Group plans to monitor and analyze car usage for a better understanding of customers' needs and behaviors and for better and highly personalized services according to their expectations, in compliance with the security and privacy norms that apply.

Renault Group, becoming a tech company with Google Cloud

With one billion pieces of data captured every day across all manufacturing sites, connected production lines, supply chain data hosted and analyzed in the cloud, Renault Group has recognized the benefits of agility and performance after more than four years of partnership on cloud computing. The Group today appoints Google as its preferred cloud partner and intends to leverage its innovation in machine learning and AI, its constant investments in its open and always more sustainable infrastructure, and its secure cloud approach.

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About Renault Group

Renault Group is at the forefront of a mobility that is reinventing itself. Strengthened by its alliance with Nissan and Mitsubishi Motors, and its unique expertise in electrification, Renault Group comprises 4 complementary brands - Renault, Dacia, Alpine and Mobilize - offering sustainable and innovative mobility solutions to its customers. Established in more than 130 countries, the Group has sold 2.7 million vehicles in 2021. It employs nearly 111,000 people who embody its Purpose every day, so that mobility brings people closer. Ready to pursue challenges both on the road and in competition, Renault Group is committed to an ambitious transformation that will generate value. This is centred on the development of new technologies and services, and a new range of even more competitive, balanced and electrified vehicles. In line with environmental challenges, the Group's ambition is to achieve carbon neutrality in Europe by 2040.

<https://www.renaultgroup.com/en/>

About Google

Google's mission is to organize the world's information and make it universally accessible and useful. Through products and platforms like Search, Maps, Gmail, Android, Google Play, Google Cloud, Chrome and YouTube, Google plays a meaningful role in the daily lives of billions of people and has become one of the most widely-known companies in the world. Google is a subsidiary of Alphabet Inc.