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Software Defined Vehicle Market by SDV Type (Semi-SDV. SDV), E/E Architecture (Distributed, Domain Centralised, Zonal Control), Vehicle Type (Passenger Car and Light Commercial Vehicle) and Region - Global Forecast to 2030

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Abstracts

The Software Defined Vehicle Market size is projected to grow from USD 213.5 billion in 2024 to USD 1,237.6 billion by 2030, at a CAGR of 34.0%. SDVs are becoming increasingly popular due to various factors such as Consumers benefit from a highly personalized driving experience, with settings and preferences customized as per drivers. For OEMs, SDVs open up new revenue streams by allowing them to sell software-based features and services. Moreover, the rise of pay-per-use mobility models offers flexible usage options like car-sharing and subscriptions, catering to modern consumer preferences.

“Zonal Controller Architecture is likely to be the leading segment in the Software Defined Vehicle market by E/E Architecture during the forecast period.”

SDVs come with an array of electronic features developed for improved driving comfort, vehicle safety, and fault detection. SDV providers such as Tesla (US), NIO (China), XPENG (China), ZEEKR (China), and Li Auto Inc. (China) have adopted a software-first approach in which they start with zonal control units to utilize the advanced and integrated software features of SDVs. Legacy OEMs also plan to shift to zonal compute systems with their SDV shift. Volkswagen plans to integrate XPENG’s CES architecture in its vehicles, starting from 2026, which will be equipped with zonal control central computing. Other OEMs such as Hyundai, Mercedes, and BMW also plan to shift to zonal control architecture by 2026-2028, incorporated in their latest vehicle platforms. Zonal controllers allow OEMs to control the whole vehicle through 4-10 HPCs per

vehicle and reduce the need for excessive wiring in the vehicles. Thus, the transition to zonal control is seen as a significant step towards fully realizing the potential of SDVs, offering a more streamlined, adaptable, and efficient vehicle architecture.

“Europe shows high growth potential for Software Defined Vehicle market.”

Europe presents a huge growth opportunity for the Software Defined Vehicle market, which is characterized by stringent safety requirements and a need for better user experience. It is home to leading OEMs such as Volkswagen, BMW, Renault, Stellantis, and Mercedes-Benz, which are transitioning toward SDVs. In Europe, OEMs are expanding in the region through strategic partnerships and acquisitions. For instance, in February 2023, CARIAD GmbH acquired Hexad GmbH's Mobility Services Platform unit which enhanced its cloud service capabilities for Volkswagen Group's digital automotive ecosystem. This acquisition integrated over 75 Hexad developers into CARIAD which strengthened its software development for improved digital services across Group brands. Also, in March 2024, Volkswagen Group plans to utilize its 23 regional plants to support the development and production of SDVs in Europe.

In-depth interviews were conducted with CEOs, marketing directors, other innovation and technology directors, and executives from various key organizations operating in the SDV market. The break-up of the primaries is as follows:

By Company Type: Tier I – 42%, Tier II – 40%, and OEM –18%,

By Designation: C-level Executives– 57%, Directors – 29%, and Executives – 14%

By Region: North America – 39%, Europe – 33%, and Asia Pacific – 28%

The Software Defined Vehicle market comprises major manufacturers such as Tesla (US), Li Auto Inc. (China), NIO (China), Rivian (US), XPENG Inc. (China), and ZEEKR (China), etc.

Research Coverage:

The study covers the Software Defined Vehicle market across various segments. It aims to estimate the market size and future growth potential of this market across different

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segments such as SDV type, vehicle type, E/E architecture, and region. The study also includes an in-depth competitive analysis of key market players, their company profiles, key observations related to product and business offerings, recent developments, and acquisitions.

This research report categorizes Software Defined Vehicle Market by SDV type (Semi-SDV, SDV), vehicle type (Passenger Car, Light Commercial Vehicle), E/E architecture, (Distributed Architecture, Domain Centralised Architecture, Zonal Control Architecture) and region Region (Asia Pacific, Europe, and North America).

The report's scope covers detailed information regarding the major factors, such as drivers, restraints, challenges, and opportunities, influencing the growth of the Software Defined Vehicle market. A detailed analysis of the key industry players provides insights into their business overview, solutions, and services; key strategies; contracts, partnerships, agreements, new product & service launches, mergers and acquisitions, and recent developments associated with the Software Defined Vehicle market. This report covers a competitive analysis of SMEs/startups in the Software Defined Vehicle market ecosystem.

Reasons to buy this report:

The report will help the market leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall Software Defined Vehicle market and the subsegments. This report will help stakeholders understand the competitive landscape and gain more insights to position their businesses better and to plan suitable go-to-market strategies. The report also helps stakeholders understand the market pulse and provides information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:

- Analysis of key drivers (Reduced recall and manufacturing costs, personalized client engagement, integration of ADAS digital cockpits, and increasing adoption of 5G technology), restraints (Limited over-the-air updates and increase in risk of cyberattacks), opportunities (Remote diagnostics, Pay-per-use mobility, SDV platform monetization and Digital twin for emergency repair), and challenges (Complex software updates and security patching and risk of data breach) influencing the growth of the Software Defined Vehicle market.

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Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product & service launches in the Software Defined Vehicle market.

Market Development: Comprehensive information about lucrative markets – the report analyses the Software Defined Vehicle market across varied regions.

Market Diversification: Exhaustive information about new products & services, untapped geographies, recent developments, and investments in the Software Defined Vehicle market.

Competitive Assessment: In-depth assessment of market shares, growth strategies, and service offerings of leading players like Tesla (US), Li Auto Inc. (China), NIO (China), Rivian (US), XPENG Inc. (China), and ZEEKR (China), among others in the Software Defined Vehicle market.

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