

# United States Software-Defined Vehicle Market Assessment, By Vehicle Type [Passenger Vehicle, Commercial Vehicle], By Propulsion [Internal Combustion Engine Vehicle, Electric Vehicle], By Vehicle Autonomy [Level 1, Level 2, Level 3, Level 4, Level 5], By SDV Type [Semi-Software Defined Vehicle, Software Defined Vehicle], By Region, Opportunities and Forecast, 2018-2032F

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### **Report description:**

United States software-defined vehicle market is projected to witness a CAGR of 18.78% during the forecast period 2025-2032, growing from USD 24.07 billion in 2023 to USD 95.39 billion in 2032. The market has experienced significant growth in recent years and is expected to maintain an expansion in the coming years owing to growing demand for enhanced safety and sustainability, a rise in the implementation of 5G technology in vehicles and increasing adoption of EVs and autonomous driving experience. The United States software-defined vehicle market demand is anticipated to rise owing to increased complexity and integration of advanced technologies in autonomous vehicles, rapid personalization, and growing demand for more efficient and environmentally friendly vehicles. Additionally, software and hardware integration is significantly rising owing to the growing adoption of over-the-air software, increasing investment by companies in producing advanced software, and a surge in recent innovative developments in autonomous driving. Furthermore, automakers increasingly integrate vehicle software to enhance customers' driving experience, allow real-time diagnostics, and provide navigation and security functions. The U.S. government is implementing different regulations to enhance the safety features of vehicles and adopt sustainable manufacturing practices. The government also provides incentives to produce electric vehicles featuring advanced driver assistance systems that increase vehicle safety and improve the driving experience. Moreover, the government is compelling companies to integrate advanced vehicle software to control major functions, including safety systems, propulsion, etc. Companies in the market are collaborating and launching software-defined vehicles in the United States to address the growing demand for autonomous vehicles and connected vehicles.

For instance, in June 2024, German auto giant Volkswagen Group announced an investment of USD 5 billion in U.S. electric vehicle maker Rivian Automotive, Inc., to form a joint venture projected to introduce technology both automakers use. Growing Demand for Autonomous Vehicles Drives Market Growth

The growing demand for autonomous vehicles, rising technological advancement, and a rapid introduction of electric and hybrid vehicles are projected to drive the United States software-defined vehicle market growth in the forecast period. In addition, the growing number of road accidents is also propelling the demand for autonomous vehicles, which further drives the growth of the United States software-defined vehicle market. According to the Association for Safe International Road Travel, nearly 1.19 million individuals die yearly due to road traffic crashes. However, in the U.S., road crashes are a leading reason for nonnatural death for citizens, based on the U.S. Department of State. Autonomous vehicles are equipped with different software and systems, including lane management systems, anti-collision systems, and others, to better decision-making and decrease the chances of accidents. Companies in the market are collaborating to expand their market presence and be competitive.

For instance, in October 2024, Toyota, Honda Motor Co., Ltd., and Nissan Group announced an agreement to promote collaboration on developing in-car software and compete against leading U.S. and Chinese manufacturers in automotive technologies.

#### Technological Advancements in Vehicles Propel Market Growth

Technological advancements in vehicle technology are projected to be a key driver for the growth of the United States software-defined vehicle market. Innovations in cloud computing, artificial intelligence, and cybersecurity are allowing the introduction of energy-efficient vehicles. These advancements allow for features including advanced driver assistance systems, real-time vehicle performance monitoring, and over-the-air updates, which improve vehicle performance and enhance the overall driving experience of consumers, driving the United States software-defined vehicle market growth in the forecast period. Furthermore, the partnerships and collaboration among the automotive and tech companies are surging rapid innovation and confirming that vehicles offer efficient road safety and are up to date with the latest technologies.

For instance, in March 2022, Hyundai Motor Company, a leading U.S. automaker, and Iveco S.p.A. announced that they would sign a Memorandum of Understanding to create leading innovative solutions and software for vehicles. This collaboration explores possible collaborations on shared vehicle technology, joint sourcing, and mutual supply.

Passenger Vehicles Hold the Largest Market Share

Passenger vehicles dominate the market growth as automakers introduce vehicles featuring a significant level of autonomy and advanced technologies to run the vehicles. The passenger vehicle market demand is significantly rising in the United States software-defined market owing to rising investment by leading automakers in autonomous and connected technology. Likewise, other giant market players have established strategic partnerships and collaborations with autonomous vehicle technology startups. Furthermore, the government is also planning to support different automakers and universities in advancing the functioning of passenger cars and developing connected vehicle research. For instance, in May 2023, the U.S. Department of Transportation's Federal Highway Administration awarded the University of Michigan a USD 9.85 million Advanced Transportation Technology and Innovation program grant to conduct connected vehicle technology research. Companies in the market plan to launch high-performance passenger vehicles featuring different efficient software to address the rising safety concerns and limit the number of accidents.

For instance, in July 2023, Hyundai Motor Company announced the launch of its new Santa Fe in the U.S. market with a fresh design equipped with rear parking sensors, rear air conditioner vents, and other software.

Semi-Software Defined Vehicle is Expected to Drive Market Growth

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-[]Advancements in autonomous and connected vehicles are projected to drive the United States software-defined vehicle market growth in the forecast period.

-[]ADAS technologies, including lane-keeping assist and emerging braking, drive market growth and standards for SDVs, improving driving experience and safety.

-[Installing artificial intelligence and the Internet of Things technologies transforms SDVs into smart, connected devices, proposing real-time monitoring, optimizing performance, and diagnostics.

\_Strategic partnerships between tech companies and automotive are surging innovation and propelling the development of advanced SDV features.

Key Players Landscape and Outlook

Key players in the United States software-defined vehicle (SDV) market are expanding their market presence by leveraging advanced technologies and strategic partnerships. Companies in the market are investing heavily in research and development to enhance vehicle functionality and user experience. These companies can offer innovative features that attract consumers by integrating cutting-edge software solutions, such as over-the-air updates and autonomous driving capabilities. Collaborations with tech firms and continuous innovation enable them to stay ahead of market trends and meet evolving customer demands. This strategy boosts their competitiveness and fosters customer loyalty and satisfaction. Furthermore, companies in the market are featuring cars with systems capable of recognizing traffic lights, conducting full lane changing, and turning left and right automatically. Automakers are continuously pushing the envelope to improve the safety of their customers further. For instance, in January 2024, Hyundai Motor Company announced an expansion by collaborating with a U.S. mission-critical software supplier to enhance its capabilities in building a new SDV platform.

For instance, in October 2024, Volvo Group and Daimler Truck AG announced a joint venture to develop a software-defined vehicle platform for heavy-duty vehicles and accomplish a common goal of developing a truck operating system

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\*Companies mentioned above DO NOT hold any order as per market share and can be changed as per information available during research work.

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