

Revolutionizing Mobility: How Automotive Operating Systems Are Powering the Software-Defined Vehicle Era

WILMINGTON, NEW CASTLE, DE, UNITED STATES, February 17, 2025 /EINPresswire.com/ -- Allied Market Research published a report titled, "<u>Automotive Operating System Market</u> by OS Type (QNX, Linux, Windows, Android, and Others), by Vehicle Type (Passenger Cars and Commercial Vehicles), by Application (Autonomous Driving, Body Control & Comfort Systems, Infotainment System, Communication Systems, Connected Service, and Others): Global



Automotive Operating System Market Growth

Opportunity Analysis and Industry Forecast, 2023-2032."

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Europe dominated the global automotive operating system market in 2022 driven by factors such as technological advancements, government regulations, and the presence of prominent automotive manufacturers and technology companies in the region. GENIVI is an open-source software alliance that focuses on developing standardized automotive operating systems. Its Linux-based operating system platforms are widely used by European automakers, including BMW, Daimler, and Renault, to power various functions in their vehicles, such as infotainment systems and connectivity features.

Prime Determinants of Growth:

The global automotive operating system market is driven by factors such as the increase in demand for connected and autonomous vehicles, the rising focus on improving vehicle safety

and security, and the integration of AI and machine learning technologies in automotive systems. However, increasing automobile system complexities and concerns about data privacy and cyber security are hampering the automotive operating systems market's growth. On the contrary, the growing market for electric and hybrid vehicles, the intervention of innovative technologies for advanced user interfaces, and the growing market for electric and hybrid vehicles are expected to offer remunerative opportunities for the expansion of the automotive operating systems market during the forecast period.

Software-centric vehicles offer several advantages compared to hardware-defined vehicles. For instance, instead of visiting a dealership for software updates related to telematics, car diagnostics, and infotainment systems, customers can now receive these updates over-the-air (OTA). These updates cover improvements to infotainment features, security patches, as well as monitoring and optimizing crucial aspects like the powertrain and driving dynamics. Consequently, the market for automotive operating systems is expected to grow as there is a growing demand for vehicles that are primarily defined by software.

Moreover, the market is influenced in European countries by stringent government regulations and initiatives related to road safety and emissions. For instance, the European Union's General Safety Regulation authorizes the addition of a few advanced safety features, such as autonomous emergency braking and lane-keeping assistance, in all new vehicles. Operating systems in vehicles play a key role in operating these safety systems, confirming their proper functioning and compliance with regulations.

QNX has an established existence in the automobile industry, with a history of successful functioning in various vehicle systems. This track record has instilled confidence in automakers and suppliers, leading to increased adoption of QNX in their vehicles. The integration of multiple technologies to create enhanced user interfaces (UI), the emergence of linked device technologies, and the ongoing trend of integrating electronic applications into vehicles are also major contributors to the global automotive operating systems market. Moreover, acquisitions, mergers, and partnerships, along with the rising demand for feature-driven technology, contribute to its growth. The use of multiple technologies to enhance UI, the advent of linked device technologies, the integration of electronic applications in vehicles, and the global demand for passenger cars further propel the expansion of the worldwide automotive operating systems industry.

The global automotive operating systems market is segmented based on OS type, vehicle type, application, and region. By OS type, the market is divided into QNX, Linux, windows, android, and others. Further, based on vehicle type, the market is bifurcated into passenger cars and commercial vehicles. As per application, the market is segmented into infotainment systems, <u>ADAS & safety systems, connected services</u>, engine management & powertrain, body control &

comfort systems, and others. By region, the market is analyzed across North America, Europe, Asia-Pacific, and Latin America, Middle East & Africa (LAMEA) including country-level analysis for each region.

https://www.alliedmarketresearch.com/automotive-operating-system-market/purchase-options

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Siemens Renesas Electronics Corporation BlackBerry Limited Alphabet Inc. Luxoft A DXC Technology Company Automotive Grade Linux NVIDIA Corporation Wind River Systems, Inc. Green Hills Software Microsoft Corporation

The report provides a detailed analysis of these key players in the global automotive operating system market. These players have adopted different strategies, such as new product launches, collaborations, expansion, joint ventures, agreements, and others, to increase their market share and maintain dominant shares in different regions. The report is valuable in highlighting business performance, operating segments, product portfolios, and strategic moves of market players to showcase the competitive scenario.

<u>https://www.alliedmarketresearch.com/bulldozer-market-A11362</u> - Bulldozer Market Size, Share, Competitive Landscape and Trend Analysis Report, by Product Type, by Bade Type, by End Use, by Operating Weight : Global Opportunity Analysis and Industry Forecast, 2023-2032

<u>https://www.alliedmarketresearch.com/unmanned-traffic-management-market-A07169</u> -Unmanned Traffic Management Market Size, Share, Competitive Landscape and Trend Analysis Report, by Component, by Application, by End User : Global Opportunity Analysis and Industry Forecast, 2021-2031

<u>https://www.alliedmarketresearch.com/automotive-artificial-intelligence-market</u> - Automotive Artificial Intelligence Market Size, Share, Competitive Landscape and Trend Analysis Report, by Component, by Technology, by Application : Global Opportunity Analysis and Industry Forecast, 2023-2032

<u>https://www.alliedmarketresearch.com/automotive-v2x-market-A07120</u> - Automotive V2X Market Size, Share, Competitive Landscape and Trend Analysis Report, by Communication, Connectivity and Vehicle Type : Global Opportunity Analysis and Industry Forecast, 2020-2027

https://www.alliedmarketresearch.com/automotive-over-the-air-ota-market-A07270 -

Automotive Over-the-Air (OTA) Market Size, Share, Competitive Landscape and Trend Analysis Report, by Technology Type, Application and Vehicle Type : Global Opportunity Analysis and Industry Forecast, 2021-2030

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