

# **Internet of Vehicles (IoV) Market by Component (Hardware, Software, Service), Technology (Wi-Fi, Bluetooth, Cellular, and Others), Communication Type (Vehicle-to-Vehicle, Vehicle-to-Infrastructure, and Others), and Region 2024-2032**

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## **Abstracts**

The global internet of vehicles (IoV) market size reached US\$ 143.9 Billion in 2023. Looking forward, IMARC Group expects the market to reach US\$ 743.4 Billion by 2032, exhibiting a growth rate (CAGR) of 19.4% during 2024-2032. The increasing sales of autonomous vehicles (AVs), rising focus on driver and passenger safety, and the growing adoption of the vehicle as a service (VaaS) represent some of the key factors driving the market.

The internet of vehicles (IoV) is a network of vehicles equipped with a global positioning system (GPS), Bluetooth, WiFi, cellular networks, internet connectivity, and sensors to collect and transmit data about location, speed, and other information. They assist in improving road safety by allowing vehicles to communicate with each other and infrastructure to avoid collisions and improve traffic flow. They also enhance the efficiency of transportation systems by enabling vehicles to connect with traffic management systems and optimize routes to reduce fuel consumption. They provide drivers with real time information about traffic conditions, parking availability, and other information to make trips more convenient.

Internet of Vehicles (IoV) Market Trends:

The increasing sales of autonomous vehicles (AVs) and the rising awareness about their benefits currently represent one of the major factors driving the demand for IoV around the world. In addition, the rising focus on driver and passenger safety on account of the increasing number of fatal road accidents is catalyzing the demand for

IoV to minimize the severity of injuries and collisions with other vehicles. Apart from this, due to the growing environmental concerns, governing agencies of numerous countries are implementing stringent policies to reduce carbon emissions and adopting measures to improve public transportation systems. They are also undertaking initiatives to spread awareness about the importance of road safety. Furthermore, the advent of the vehicle to everything (V2X) communication to communicate with numerous devices and systems is bolstering the growth of the market. Besides this, there is an increase in the integration of artificial intelligence (AI), machine learning (ML), cloud computing, blockchain, and fifth-generation (5G) technology in IOV to analyze data from connected vehicles and improve their performance and capabilities. These advanced technologies also help store vast amount of data by the vehicles and provide access to this data for analysis and decision making. Additionally, the growing adoption of the vehicle as a service (VaaS) that facilitates consumers to pay for the use of a vehicle on a subscription basis is creating a positive outlook for the market. Moreover, rapid urbanization, and inflating income levels are influencing the market positively.

#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each segment of the global internet of vehicles (IoV) market, along with forecasts at the global, regional, and country level from 2024-2032. Our report has categorized the market based on component, technology, and communication type.

#### Component Insights:

- Hardware
- Software
- Service

The report has provided a detailed breakup and analysis of the internet of vehicles (IoV) market based on the component. This includes hardware, software, and service. According to the report, service represented the largest segment.

#### Technology Insights:

- Wi-Fi
- Bluetooth
- Cellular
- Others

A detailed breakup and analysis of the internet of vehicles (IoV) market based on the technology has also been provided in the report. This includes Wi-Fi, bluetooth, cellular, and others. According to the report, Wi-Fi accounted for the largest market share.

#### Communication Type Insights:

Vehicle-to-Vehicle

Vehicle-to-Infrastructure

Others

The report has provided a detailed breakup and analysis of the internet of vehicles (IoV) market based on the communication type. This includes vehicle-to-vehicle, vehicle-to-infrastructure, and others. According to the report, vehicle-to-vehicle represented the largest segment.

#### Regional Insights:

North America

United States

Canada

Asia-Pacific

China

Japan

India

South Korea

Australia

Indonesia

Others

Europe

Germany

France

United Kingdom

Italy

Spain

Russia

Others

Latin America

Brazil

Mexico

Others

Middle East and Africa

The report has also provided a comprehensive analysis of all the major regional markets that include North America (the United States and Canada), Asia Pacific (China, Japan, India, South Korea, Australia, Indonesia, and others), Europe (Germany, France, United Kingdom, Italy, Spain, Russia, and others), Latin America (Brazil, Mexico, and others), and the Middle East and Africa. According to the report, North America was the largest market for internet of vehicles (IoV). Some of the factors driving the North America internet of vehicles (IoV) market included increasing sales of AVs, stringent policies by governing agencies, the integration of advanced technologies, etc.

#### Competitive Landscape:

The report has also provided a comprehensive analysis of the competitive landscape in the global internet of vehicles (IoV) market. Detailed profiles of all major companies have also been provided. Some of the companies covered include AT&T Inc., Cisco Systems Inc., Ford Motor Company, Google LLC (Alphabet Inc.), International Business Machines Corporation, Nexar Inc., NXP Semiconductors N.V., Texas Instruments Incorporated, Verizon Communications Inc., Volkswagen AG, etc.

#### Key Questions Answered in This Report:

How has the global internet of vehicles (IoV) market performed so far and how will it perform in the coming years?

What are the drivers, restraints, and opportunities in the global internet of vehicles (IoV) market?

What are the key regional markets?

Which countries represent the most attractive internet of vehicles (IoV) markets?

What is the breakup of the market based on the component?

What is the breakup of the market based on the technology?

What is the breakup of the market based on the communication type?

What is the competitive structure of the global internet of vehicles (IoV) market?

Who are the key players/companies in the global internet of vehicles (IoV) market?

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