

Intelligent Transportation System (ITS) Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2025-2034

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Report description:

The Global Intelligent Transportation System (ITS) Market reached a valuation of USD 47.2 billion in 2024 and is projected to expand at a CAGR of 10.3% from 2025 to 2034. The increasing focus on smart city development is a significant driver as urbanization continues to rise at an unprecedented rate. Cities worldwide are experiencing heightened demand for sustainable, efficient, and safer mobility solutions. As the global population shifts towards urban areas, digital advancements in transportation infrastructure are essential for optimizing traffic flow, reducing congestion, and improving public transit efficiency.

ITS solutions integrate advanced traffic management, real-time data analytics, interconnectivity, and public transit operations to streamline urban mobility. With growing environmental concerns, new technologies are being incorporated to support electric vehicles, shared transportation, and lower emissions. Urban expansion is expected to add millions of new vehicles to roads, challenging existing transport systems and requiring innovative solutions to maintain sustainability. The adoption of smart IoT, AI, and analytical technologies is redefining urban mobility by integrating multiple modes of transportation into seamless, multimodal networks. Real-time information systems allow travelers to access schedules, traffic updates, and alternate routes, enhancing efficiency and convenience. As cities implement policies promoting digital mobility ecosystems, investments in ITS continue to grow, driving the demand for safer and more sustainable urban transportation solutions.

The market is segmented by mode of transportation, including rail, road, air, and marine. In 2024, the rail sector accounted for over 40% of the market share, while the road segment is forecast to exceed USD 25 billion by 2034. Governments are issuing high-value tenders for roadway enhancements, prioritizing infrastructure upgrades to accommodate increasing traffic volumes. These projects focus on improving intersections, rehabilitating roadways, and deploying real-time monitoring systems to enhance traffic management and mitigate congestion.

Within the railway segment, applications include smart ticketing, passenger information management, operations, security, emergency notifications, and collision avoidance. Passenger information management accounted for a 27.9% market share in

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2024, while smart ticketing is projected to grow at a CAGR of 13% by 2034. Enhanced digital transformation efforts in transportation are leveraging real-time communication technologies, in-train computing systems, GPS tracking, and cloud-based information platforms to improve passenger experience and operational efficiency.

The air transportation segment includes information display systems, tracking and monitoring systems, self-service baggage solutions, kiosks, communication networks, and smart gates. Tracking and monitoring solutions led the market in 2024 with a valuation of USD 2 billion. The integration of GPS and IoT has revolutionized aviation by enabling real-time tracking of aircraft, passengers, and baggage. Enhanced situational awareness improves safety, operational efficiency, and asset management, ensuring seamless airline and airport operations.

The road transportation market is categorized into hardware, software, and services. In 2024, the hardware segment dominated, with a market share exceeding 55%. The adoption of GPS units, sensors, high-definition cameras, and ruggedized IoT devices has improved connectivity and operational reliability. Edge computing enables data processing within vehicles, enhancing efficiency and passenger safety.

In North America, the United States led the ITS market with a revenue of USD 10.6 billion in 2024. Public transit systems are increasingly adopting shared mobility services, integrating bike-sharing, e-scooters, and ride-sharing into multimodal transport networks. Contactless ticketing systems have been widely implemented, enabling seamless fare payments through smartphones, smart cards, and digital wallets. These advancements are enhancing urban mobility by reducing congestion, improving transit efficiency, and providing a more connected transportation experience.

Table of Contents:

- Report Content
 - Chapter 1 Methodology & Scope
 - 1.1 Research design
 - 1.1.1 Research approach
 - 1.1.2 Data collection methods
 - 1.2 Base estimates & calculations
 - 1.2.1 Base year calculation
 - 1.2.2 Key trends for market estimation
 - 1.3 Forecast model
 - 1.4 Primary research and validation
 - 1.4.1 Primary sources
 - 1.4.2 Data mining sources
 - 1.5 Market scope & definition
 - Chapter 2 Executive Summary
 - 2.1 Industry synopsis, 2021 - 2034
 - Chapter 3 Industry Insights
 - 3.1 Industry ecosystem analysis
 - 3.1.1 Raw material suppliers
 - 3.1.2 Component suppliers
 - 3.1.3 Manufacturers
 - 3.1.4 Technology/software providers
 - 3.1.5 System integrators
 - 3.1.6 Service providers

- 3.1.7 Government agencies
- 3.1.8 Financial authorities
- 3.2 Supplier landscape
- 3.3 Profit margin analysis
- 3.4 Technology & innovation landscape
- 3.5 Patent analysis
- 3.6 Key news & initiatives
- 3.7 Regulatory landscape
- 3.8 Impact forces
 - 3.8.1 Growth drivers
 - 3.8.1.1 Government funding and PPP models
 - 3.8.1.2 Demand for Pay-as-you-go ticketing service among commuters in Europe and North America
 - 3.8.1.3 Rise in favorable government initiatives for effective traffic management in North America and Asia Pacific
 - 3.8.1.4 Growing investment in railway infrastructure in Europe
 - 3.8.1.5 Rapidly growing urbanization and rising smart city projects in Asia Pacific
 - 3.8.2 Industry pitfalls & challenges
 - 3.8.2.1 Integration complexities with legacy systems
 - 3.8.2.2 High cost of maritime equipment High installation cost and data complexity
- 3.9 Growth potential analysis
- 3.10 Porter's analysis
- 3.11 PESTEL analysis
- Chapter 4 Competitive Landscape, 2024
 - 4.1 Introduction
 - 4.2 Company market share analysis
 - 4.3 Competitive positioning matrix
 - 4.4 Strategic outlook matrix
- Chapter 5 Market Estimates & Forecast, By Mode of Transport, 2021 - 2034 (\$Bn)
 - 5.1 Key trends
 - 5.2 Rail
 - 5.3 Road
 - 5.4 Air
 - 5.5 Marine
- Chapter 6 Market Estimates & Forecast, By Rail, 2021 - 2034 (\$Bn)
 - 6.1 Key trends
 - 6.2 Component
 - 6.2.1 Solution
 - 6.2.1.1 Rail traffic management
 - 6.2.1.2 Asset management software
 - 6.2.1.3 Rail communication and networking
 - 6.2.1.4 Real-time passenger information system
 - 6.2.1.5 Rail analytics
 - 6.2.2 Services
 - 6.2.2.1 Professional services
 - 6.2.2.2 Installation, maintenance, and operation
 - 6.3 Application
 - 6.3.1 Smart ticketing
 - 6.3.2 Passenger information system

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6.3.3 Operation & collision avoidance

6.3.4 Security

6.3.5 Emergency notification

6.3.6 Others

Chapter 7 Market Estimates & Forecast, By Road, 2021 - 2034 (\$Bn)

7.1 Key trends

7.2 System

7.2.1 Advanced traffic management system (ATMS)

7.2.2 Advanced traveler information system (ATIS)

7.2.3 Advanced transportation pricing system (ATPS)

7.2.4 Advanced public transport system (APTS)

7.2.5 Advanced rural transportation system (ARTS)

7.2.6 Commercial vehicle operation (CVO)

7.3 Component

7.3.1 Hardware

7.3.1.1 Telecommunication network

7.3.1.2 Interface boards

7.3.1.3 Sensors

7.3.1.4 Monitoring & detection system

7.3.1.5 Surveillance camera

7.3.2 Software

7.3.2.1 Visualization software

7.3.2.2 Video detection management software

7.3.2.3 Transit management system

7.3.2.4 Others

7.3.3 Services

7.3.3.1 Professional services

7.3.3.2 Installation, maintenance, and operation

7.4 Application

7.4.1 Traffic management

7.4.2 Road safety

7.4.3 Freight management

7.4.4 Parking management

7.4.5 Road user charging/ETC

7.5 Telematics

Chapter 8 Market Estimates & Forecast, By Air, 2021 - 2034 (\$Bn)

8.1 Key trends

8.2 System

8.2.1 Information display system

8.2.2 Tracking and monitoring system

8.2.3 Self-service baggage system

8.2.4 Kiosks

8.2.5 Communication and networking

8.2.6 Smart gate system

8.2.7 Others

8.3 Application

8.3.1 Security

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8.3.2	Smart ticketing
8.3.3	Bus tracking
8.3.4	Fleet management (aircraft management)
8.3.5	Emergency notification
8.3.6	Passenger information
8.3.7	Others
Chapter 9 Market Estimates & Forecast, By Marine, 2021 - 2034 (\$Bn)	
9.1	Key trends
9.2	System
9.2.1	Maritime navigation and information system
9.2.2	Tracking and monitoring system
9.2.3	Vessel traffic management system
9.3	Application
9.3.1	Freight movement (container)
9.3.2	Security and emergency notification
9.3.3	Weather information
9.3.4	Marine arrival and transit
9.3.5	Others
Chapter 10 Market Estimates & Forecast, By Region, 2021 - 2034 (\$Bn)	
10.1	North America
10.1.1	U.S.
10.1.2	Canada
10.2	Europe
10.2.1	UK
10.2.2	Germany
10.2.3	France
10.2.4	Spain
10.2.5	Italy
10.2.6	Netherlands
10.2.7	Russia
10.3	Asia Pacific
10.3.1	China
10.3.2	India
10.3.3	Japan
10.3.4	Singapore
10.3.5	Australia
10.4	Latin America
10.4.1	Brazil
10.4.2	Mexico
10.4.3	Argentina
10.5	MEA
10.5.1	UAE
10.5.2	Saudi Arabia
10.5.3	South Africa
Chapter 11 Company Profiles	
11.1	Alstom
11.2	Cisco

11.3 Clever Devices
11.4 Cubic
11.5 Embross
11.6 ETA Transit Systems
11.7 FURUNO ELECTRIC
11.8 Garmin
11.9 Indra Sistemas
11.10 Kapsch
11.11 Kongsberg Gruppen
11.12 Kyosan Electric Manufacturing
11.13 Lanner Electronics
11.14 Nisshinbo
11.15 Northrop Grumman
11.16 Q-Free ASA
11.17 Raytheon
11.18 Siemens
11.19 Teledyne
11.20 Thales
11.21 Trapeze Group
11.22 Xerox

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