

Connected Trucks Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2025 - 2034

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Abstracts

The Global Connected Trucks Market was valued at USD 34.8 billion in 2024 and is estimated to grow at a CAGR of 15.7% to reach USD 149.5 billion by 2034.

The growing demand for connected truck technologies is reshaping logistics and long-haul transportation networks worldwide. Advanced telematics, predictive fleet analytics, and in-cabin connectivity are transforming the way operators monitor routes, forecast delivery times, optimize loads, and minimize idle or empty trips. The use of digital-twin simulations enables fleet managers and OEMs to test operational models virtually, leading to cost reduction, enhanced safety, and improved delivery reliability. As the industry transitions toward electric and low-emission fleets, connected truck platforms are being utilized to manage energy distribution, schedule charging, and optimize range efficiency. Integration of smart charging and vehicle-to-grid communication systems ensures balanced energy usage and reduced grid strain. Furthermore, in mixed fleet operations, connected systems enable dynamic load balancing and route optimization to preserve battery life. The rapid integration of advanced driver assistance technologies such as automated braking, lane keeping, and truck platooning further underscores the importance of reliable, low-latency connectivity. OEMs and fleet operators are increasingly investing in sensor fusion and cloud analytics to turn real-time data into actionable safety and compliance insights.

The hardware segment held a 44% share in 2024 and is projected to grow at a CAGR of 13.9% through 2034. Hardware continues to lead the market as it forms the essential framework that enables connectivity, communication, and telematics integration. Key components, including telematics control units (TCUs), GPS/GNSS devices, sensors, and wireless communication modules, serve as the backbone for collecting and

transmitting real-time operational data. These systems support seamless interaction between vehicles, cloud platforms, and fleet management networks, forming the physical layer that powers digital transport ecosystems.

The dedicated short-range communication (DSRC) segment accounted for a 68% share in 2024 and is projected to grow at a CAGR of 15.1% from 2025 to 2034. DSRC technology remains the preferred communication method for connected trucks due to its robust performance and low latency, which are crucial for real-time vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) communication. This enables instantaneous data exchange for applications that enhance safety, such as collision detection, lane-changing alerts, and emergency response systems. Its proven reliability and regulatory alignment continue to strengthen its adoption in modern trucking operations.

United States Connected Trucks Market held an 85% share, generating USD 12.3 billion in 2024. The U.S. market benefits from early adoption of advanced connectivity systems, extensive telematics infrastructure, and strong participation from global truck manufacturers. OEMs have integrated factory-installed digital connectivity platforms that support real-time monitoring, remote diagnostics, and performance optimization, driving rapid market penetration. Additionally, growing demand for fleet efficiency, stringent safety regulations, and the presence of major telematics providers are accelerating technology deployment across regional fleets.

Key companies operating in the Global Connected Trucks Market include Trimble, Continental, Daimler Truck, BYD Company, Tata Motors, PACCAR, MAN Truck & Bus, Scania, Geotab, and Volvo. Leading players in the Connected Trucks Market are implementing multiple strategies to strengthen their market presence. Many are focusing on developing advanced connectivity ecosystems combining hardware, software, and telematics to deliver integrated fleet intelligence. Strategic collaborations with logistics providers and OEMs are being pursued to expand product portfolios and ensure large-scale deployment. Companies are also investing heavily in AI and data-driven analytics to enhance predictive maintenance, driver safety, and energy optimization.

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