+357 96 030922
info@marketpublishers.com

Toll Collection System Market Forecasts to 2034 – Global Analysis By Component (Toll Tags/Transponders, Readers and Antennas, Cameras, Sensors, Toll Plaza Equipment, Back-Office Systems, Software Platforms, and Enforcement Systems), Tolling Model, Technology, End User, and By Geography

https://marketpublishers.com/r/T0F8524FD809EN.html
Date: June 2026
Pages: 200
Price: US$ 4,150.00 (Single User License)
ID: T0F8524FD809EN

Abstracts

According to Stratistics MRC, the Global Toll Collection System Market is accounted for $11.1 billion in 2026 and is expected to reach $21.8 billion by 2034 growing at a CAGR of 8.8% during the forecast period. Toll collection systems encompass the technologies and infrastructure used to electronically collect fees for road, bridge, and tunnel usage, replacing traditional manual cash transactions. These systems improve traffic flow, reduce congestion, and enhance revenue collection efficiency for transportation authorities. The market integrates various technologies including radio frequency identification (RFID), dedicated short-range communication (DSRC), global navigation satellite system (GNSS)-based tolling, and automatic number plate recognition (ANPR) systems deployed across highways, urban corridors, and restricted access zones worldwide.

Market Dynamics:

Driver:

Increasing highway infrastructure development globally

Massive government investments in road infrastructure across emerging economies are

+357 96 030922
info@marketpublishers.com

creating extensive opportunities for electronic toll collection deployments. Countries including India, China, Brazil, and Indonesia are expanding national highway networks to support economic growth, with electronic tolling becoming mandatory on new high-speed corridors. The need to recover construction and maintenance costs efficiently drives adoption of automated systems over manual collection points. Additionally, public-private partnership models for road development require reliable revenue collection mechanisms to attract private investors, further accelerating the integration of advanced tolling technologies from the initial planning stages of infrastructure projects.

Restraint:

High initial deployment and integration costs

The substantial capital expenditure required for implementing electronic toll collection systems remains a significant barrier, particularly for developing regions with limited budgets. Infrastructure costs include gantries, roadside units, cameras, sensors, backend servers, and network connectivity, alongside ongoing expenses for maintenance and technical support. Legacy systems integration with modern technologies adds complexity and expense, requiring customized solutions rather than off-the-shelf deployments. Smaller toll operators and concessionaires with limited financial capacity may delay modernization, opting to continue manual operations despite inefficiencies, which slows market penetration and prevents realization of scalability benefits across fragmented road networks.

Opportunity:

Emergence of multi-lane free-flow and satellite-based tolling

Next-generation tolling technologies are revolutionizing fee collection by eliminating the need for physical barriers or speed reduction at toll plazas. Multi-lane free-flow systems utilize overhead gantries with multiple sensors to capture transactions from vehicles traveling at highway speeds, dramatically improving throughput and reducing fuel consumption. GNSS/GPS-based tolling, particularly attractive for large geographic areas like national road networks, charges vehicles based on actual distance traveled without roadside infrastructure. These innovations reduce land acquisition costs for toll plazas, minimize environmental impact, and enhance user convenience, creating substantial market growth opportunities in both developed and emerging economies.

+357 96 030922
info@marketpublishers.com

Threat:

Privacy and data security concerns

Widespread collection of vehicle movement data raises significant privacy challenges that could trigger regulatory restrictions or public resistance to electronic tolling adoption. GNSS-based systems track real-time vehicle positions, while ANPR cameras capture license plate images, creating databases of travel patterns that could be misused if inadequately protected. Data breaches exposing driver routes, timings, and payment information could erode public trust and lead to lawsuits or mandates requiring system redesigns. Stricter data protection regulations, such as GDPR in Europe, impose compliance burdens on system operators, potentially increasing costs and limiting certain data-intensive tolling approaches in privacy-sensitive jurisdictions.

Covid-19 Impact:

The COVID-19 pandemic accelerated the shift toward contactless toll collection as hygiene concerns made cash transactions undesirable at manual toll booths. Reduced traffic volumes during lockdown periods highlighted operational inefficiencies of traditional systems, prompting authorities to fast-track electronic tolling deployments. Government stimulus packages directed toward transportation infrastructure included funding for modernization of legacy systems. The pandemic also intensified focus on supply chain resilience, encouraging development of automated tolling that minimizes human interaction. These changes have proven persistent, with post-pandemic traffic recovery seeing continued preference for electronic payments, permanently raising the baseline for contactless tolling adoption across global road networks.

The RFID segment is expected to be the largest during the forecast period

The RFID segment is expected to account for the largest market share during the forecast period, driven by its low cost, proven reliability, and widespread deployment across mature tolling networks. RFID-based systems, utilizing windshield-mounted transponders and roadside readers, enable seamless vehicle identification at highway speeds without requiring line-of-sight like barcodes. Major tolling programs including India's FASTag, the US E-ZPass system, and various European networks have established extensive RFID infrastructure that continues to process the majority of electronic toll transactions globally. The technology's simplicity, low power consumption, and ability to integrate with payment systems make it the preferred choice for high-volume, low-complexity tolling applications throughout the forecast timeline.

+357 96 030922
info@marketpublishers.com

The Infrastructure operators segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the Infrastructure operators segment is predicted to witness the highest growth rate, reflecting the expanding role of private and semi-private entities in toll road management beyond traditional government authorities. These operators, managing tunnels, bridges, urban congestion zones, and express lanes, increasingly adopt sophisticated tolling technologies to optimize revenue while maintaining traffic flow. Unlike government authorities constrained by bureaucratic processes, infrastructure operators prioritize rapid return on investment and operational efficiency, accelerating deployment of advanced systems including multi-lane free-flow and dynamic pricing technologies. As public-private partnerships proliferate and cities explore congestion pricing models, infrastructure operators become primary drivers of tolling innovation and market expansion.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share, supported by the maturity of its extensive toll road network and high technology adoption rates. The United States and Canada have deployed electronic tolling across thousands of miles of highways, bridges, and tunnels, with strong interoperability between regional systems. Continuous modernization investments, including transition from cash lanes to all-electronic tolling, sustain market leadership. The presence of major toll technology providers headquartered in the region ensures rapid access to innovations and reliable maintenance networks. High vehicle ownership rates and daily commuter traffic create consistent transaction volumes, justifying ongoing infrastructure upgrades throughout the forecast period.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, fueled by massive highway expansion projects and national electronic tolling mandates across densely populated countries. India's FASTag program achieved near-universal electronic toll compliance on national highways, while China's ETC system covers the world's largest toll road network serving hundreds of millions of vehicles. Indonesia, Vietnam, and the Philippines are implementing electronic tolling on new expressways funded through international development loans that require automated revenue collection. Rapid urbanization, rising vehicle ownership, and government

+357 96 030922
info@marketpublishers.com

commitments to reduce congestion drive adoption. As traditional manual barriers are systematically eliminated, Asia Pacific emerges as the fastest-growing market for toll collection technologies.

Key players in the market

Some of the key players in Toll Collection System Market include Kapsch TrafficCom AG, Conduent Incorporated, TransCore LP, Cubic Corporation, Thales Group, Siemens AG, Raytheon Technologies Corporation, Q-Free ASA, Neology, Inc., EFKON GmbH, SKIDATA AG, Toshiba Infrastructure Systems & Solutions Corporation, Mitsubishi Heavy Industries, Ltd., GeoToll, Inc., Sensys Gatso Group AB, TagMaster AB, SICE Technology, ST Engineering, Abertis Infraestructuras, S.A., and Autostrade per l'Italia S.p.A.

Key Developments:

In May 2026, Kapsch TrafficCom expanded its footprint in Southern California after securing a contract to deliver and expand intelligent transportation infrastructure for the San Bernardino Express Lanes network.

In March 2026, TransCore successfully deployed an integrated roadside tolling and dynamic pricing system powering the 69Express Lanes in Kansas. The infrastructure utilizes advanced trip-building logic to handle fully electronic tolling along the corridor.

In December 2025, TransCore expanded its California footprint by launching express lane toll operations across an 18-mile corridor of Interstate 80 (I-80) in Solano County, marking the fourth Bay Area Infrastructure Financing Authority (BAIFA) corridor delivered by the company.

Components Covered:

- Toll tags / transponders
- Readers and antennas
- Cameras
- Sensors

+357 96 030922
info@marketpublishers.com

- Toll plaza equipment
- Back-office systems
- Software platforms
- Enforcement systems

Tolling Models Covered:

- Open tolling
- Closed tolling
- Barrier-based tolling
- Barrier-free tolling
- Distance-based tolling
- Congestion pricing systems

Technologies Covered:

- RFID
- DSRC
- GNSS/GPS-based tolling
- ANPR / video tolling
- Microwave-based systems
- Hybrid systems

+357 96 030922
info@marketpublishers.com

End Users Covered:

- Government authorities
- Toll operators
- Highway concessionaires
- Infrastructure operators

Regions Covered:

- North America
  - United States
  - Canada
  - Mexico
- Europe
  - United Kingdom
  - Germany
  - France
  - Italy
  - Spain
  - Netherlands
  - Belgium
  - Sweden

+357 96 030922
info@marketpublishers.com

- Switzerland
- Poland
- Rest of Europe

Asia Pacific

- China
- Japan
- India
- South Korea
- Australia
- Indonesia
- Thailand
- Malaysia
- Singapore
- Vietnam
- Rest of Asia Pacific

South America

- Brazil
- Argentina
- Colombia
- Chile

+357 96 030922
info@marketpublishers.com

- Peru
- Rest of South America

Rest of the World (RoW)

- Middle East
  - Saudi Arabia
  - United Arab Emirates
  - Qatar
  - Israel
  - Rest of Middle East
- Africa
  - South Africa
  - Egypt
  - Morocco
  - Rest of Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations

+357 96 030922
info@marketpublishers.com

- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

9 GLOBAL TOLL COLLECTION SYSTEM MARKET, BY GEOGRAPHY

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

List Of Tables

LIST OF TABLES

+357 96 030922
info@marketpublishers.com

Note: Tables for North America, Europe, APAC, South America, and Rest of the World (RoW) Regions are also represented in the same manner as above.

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Toll Collection System Market Forecasts to 2034 – Global Analysis By Component (Toll Tags/Transponders, Readers and Antennas, Cameras, Sensors, Toll Plaza Equipment, Back-Office Systems, Software Platforms, and Enforcement Systems), Tolling Model, Technology, End User, and By Geography

Product link: https://marketpublishers.com/r/T0F8524FD809EN.html

Price: US$ 4,150.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/T0F8524FD809EN.html