AutoKinex® for Agencies

Connected Vehicle Program for Toll Agencies

Accelerating the Connected Future



VERRA MOBILITY™

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Verra Mobility: A Leading Provider of Technology-Enabled Solutions

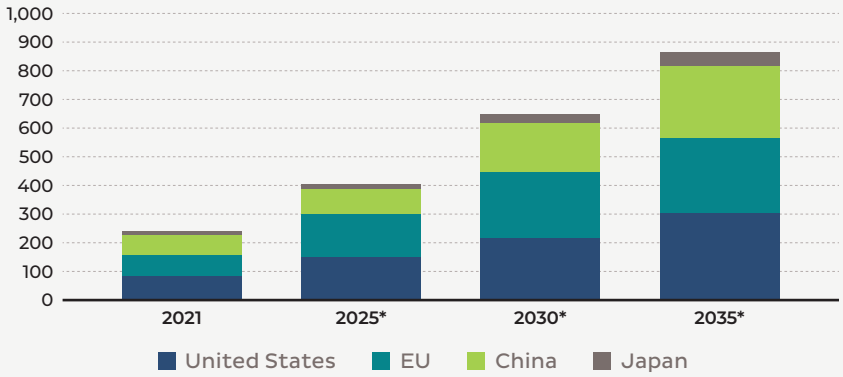
Verra Mobility, the developer of **AutoKinex® for Agencies**, is the industry leader in toll-managed services, providing these services to the world's largest fleets, automotive OEMs, and consumers, as well as integrating with toll agencies and authorities throughout the USA and Europe. Our systems process hundreds of millions of toll transactions annually, and we provide a range of complex ancillary services to our clients as well. Verra Mobility leads the industry:

#1	**The number one provider of road safety cameras in the U.S., partners with over 4k jurisdicitons and school districts**
97%	**Verra Mobility has relationships with toll authorities that account for 97% of daily toll transactions**
70+%	**of violations processed received electronically. Integrated with over 400 of the largest issuing authorities**
7M+	**Verra Mobility provides services for over 7 million rental car and commercial fleet vehicles**
TOP 8	**Verra Mobility is partnered with the top 8 Fleet Management Companies in North America**
300M+	**Verra Mobility process more than 300 million toll and violations transactions annually**
1750+	**U.S. company based in AZ with 1750+ employees & offices around the globe**

The Connected Vehicle Revolution

The global move to the Connected Vehicle (CV) is well underway. Statista, a leading German online platform specializing in data gathering and visualization, provides information that indicates “the size of the global connected car fleet is projected to increase more than threefold in the coming years.” Here in the United States, the number of Connected Vehicles is “expected to surpass 305 million in 2035,” representing a nearly four-fold increase from 2021.

Size of the global connected car fleet in 2021, with a forecast for 2025, 2030, and 2035, by region (in million units)





Stop Revenue Leakage, Increase Transaction Accuracy, and Lower Costs with AutoKinex

Many toll agencies face challenging issues with revenue leakage due to unidentified plates, low-confidence reads, unvalidated HOV occupancy, and other scenarios affecting timely and complete collection.

AutoKinex for Agencies provides powerful solutions for these challenges, with the AutoKinex Connected Vehicle program.

AutoKinex Connected Vehicle data is enriched with authenticated vehicle identifiers retrieved from the vehicle's onboard telematics or embedded SIM modules and are transmitted via secure channels. This can also be used to validate roadside infrastructure transactions with AVI-derived identifiers such as license plate reads or tag IDs, ensuring multi-source transaction assurance.

Importantly, AutoKinex, with its technology-agnostic approach, does not rely upon specialized on-board vehicle hardware or roadside infrastructure. Instead, AutoKinex can operate seamlessly with any vehicle regardless of the OEM manufacturer, and works with or without existing tolling infrastructure, thus supporting phased deployment or hybrid operational models, and facilitating parallel operation or gradual transition.

Integrating AutoKinex Connected Vehicle data will result directly in toll revenue leakage reduction through scenarios that include the following:

- The VIN, as a unique and reliable identifier, is extracted directly from the vehicle's onboard system and matched to the registered license plate, so that 100% of vehicle identification is achieved. By bypassing sole reliance on license plate recognition, this approach eliminates revenue leakage caused by stolen plates, weather conditions, or damaged/obscured plates that traditional LPR cameras may fail to process.
- Integration with existing tolling systems is seamless.
- Revenue capture is increased and costs are reduced through redundant reconciliation logic and accurate vehicle occupancy count.
- Security is enhanced by enabling automated identification and verification of vehicles, reducing toll evasion and fraud.
- Our GPS-based tolling framework incorporates edge-processing capabilities within the vehicle to capture and validate the vehicle identification number, location, timestamp, classification, occupant count, and transaction metadata in real-time.
- Manual review of license plates for low confidence plate reads and associated costs are reduced through GPS adjudication.
- In the event of traditional infrastructure or device failure, AutoKinex, through its capture and validation of vehicle and transaction data, can still provide toll transactions records to the toll agency systems.

AutoKinex Integrates with Your Agency's AVI Systems for Redundant Reconciliation Logic

AutoKinex is engineered to support modular integration with legacy AVI (Automatic Vehicle Identification) systems, providing a future-forward tolling platform that ensures backward compatibility. Through standardized APIs and configurable data interfaces, AutoKinex enables seamless data exchange with roadside tolling hardware, including RFID-based transponders, OCR cameras, and classification sensors.

AutoKinex supports redundant data reconciliation logic, allowing it to act as both a primary and an auditing data source. This enables real-time anomaly detection, classification cross-checking, and enhanced adjudication workflows. AutoKinex is especially valuable in environments with variable OCR performance due to hardware limitations, environmental conditions, or license plate variation. AutoKinex has demonstrated the value of supplementing the Image-Based Transaction (IBT) with Connected Vehicle tolling transactions as a part of the adjudication process. This enhancement plays a critical role, aiming to lower associated costs and elevate the quality of transaction processing.

The GPS transaction pulls the vehicle's unique identifier (VIN) through telematics data, and this is correlated with the plate, then integrated with existing AVI systems. The order of adjudication can be adjusted, according to your agency's requirements. Results have confirmed that, by including GPS data with the IBT data, it is possible that 100% of the Medium and Low confidence IBT records were able to be matched/confirmed and could be adjudicated without human involvement. This represents a substantial opportunity to improve the results of vehicle identification, to minimize leakage, and to avoid a costly human review of the plate for verification purposes.

Attain Accurate Vehicle Occupancy for High Occupancy Toll (HOT) Lanes

AutoKinex collects and analyzes vehicle sensor data through our proprietary Connected Vehicle technology. AutoKinex can then use this data to analyze vehicle occupancy for HOT lanes verification. Eligibility is validated and applicable toll rates are identified in real time, thus capturing additional and accurately rated revenue as well as reducing manual labor-intensive enforcement methods. AutoKinex data identifies the number of vehicle occupants in real time, and matches that information against transponder toll settings to identify violators.

Achieving Connectivity

Connected Vehicle data transfer can flow from AutoKinex to your agency either through APIs or flat files, with API being the preferred method for its near-real-time contents. Whether your agency chooses API connectivity or flat file transfer at prescribed intervals, AutoKinex Connected Vehicle transaction information will include all data points that are collected through the transponder: vehicle ID, plate, state, vehicle classification, passenger occupancy, and time-date stamp, thus enabling adjudication and reconciliation for agency-recorded transactions. AutoKinex will work with your agency's preferences and technology to customize the methodology for optimum outcomes.

Accelerating the Connected Future

When your agency is ready, we'll work with you so that you can take full advantage of the power of AutoKinex. AutoKinex for Agencies is a turnkey, future-proof, comprehensive solution platform that simultaneously ensures uninterrupted vehicle flow and accurate fee collection. Importantly, AutoKinex functions seamlessly with legacy systems, thus enabling simultaneous integrated operations, and can be easily configured to suit the specific requirements of individual toll agencies.

AutoKinex utilizes onboard GPS, cellular connectivity, and secure cloud-native processing to calculate and collect tolls in real time. Reliable, accurate, technology-agnostic, and cost efficient, AutoKinex is commercially deployed and live on multiple OEM brands, and is tested and proven in high-volume and unique real-world toll environments. With the complete AutoKinex for Agencies platform, you'll realize multiple high-value benefits including:

- Enables new use cases including RUC, one-time tolling, automated enrollment, congestion pricing, low emissions zones, event management, and more.
- No specialized roadside infrastructure or vehicle hardware required.
- Fully operational without gantries, roadside sensors, and fiber networks, reducing capital and operational costs.
- Prevents toll revenue leakage through accurate detection, real-time processing, secure transaction handling, and enhanced adjudication.
- Delivers real-time occupancy detection for HOV/HOT via vehicle sensors.
- Enables accurate real-time toll calculation based on vehicle location, classification, route, and time.
- Maintains high transaction accuracy standards (minimum 99.5%) for all vehicles using toll roads.
- Leverages advanced in-vehicle communication technologies to enhance on-road communications with customers.
- Improves the customer experience with increased transparency through in-vehicle messaging.
- Offers one-time tolling and automated enrollment.
- Develops opportunities to enhance driver safety, increase customer usage, and maximize on-road collective efficiencies.
- Ensures seamless vehicle flow with no need for stopping or slowing.
- Easily integrates with existing tolling systems and back-office platforms, supporting a smooth transition and broader adoption.
- Protects agencies from risks and costs associated with possible 900 MHz spectrum realignments.
- Takes advantage of emerging technologies to achieve economies of scale.

AutoKinex®

Schedule a Custom Demo

Verra Mobility and its solution, AutoKinex for Agencies, are at the forefront of the rapidly evolving Connected Vehicle transformation. We will provide your toll agency with a no-cost pilot program to demonstrate, prove out, and refine our solution to meet your agency's objectives. Contact us to discuss further and schedule a custom demonstration.



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