

INDRA, AUDI AND QUALCOMM JOIN FORCES TO DEMONSTRATE THE FUTURE OF TOLLING WITH CONNECTED VEHICLE TECHNOLOGY (C-V2X)

- Indra, Audi, and Qualcomm have been collaborating for the past two years to develop this tolling technology for connected vehicles, bringing a new model of nationwide interoperability
- The companies demonstrated this technology during the OmniAir Interoperability Testing at the SunTrax Test Facility in Florida on May 12, 2025

June 2nd, 2025.- –Indra, Audi of America and Qualcomm Technologies, Inc. are launching a joint project to advance next-generation toll payments using cellular vehicle-to-everything (C-V2X) technology. This initial deployment work will show how vehicles equipped with C-V2X two-way connectivity can ease congestion on toll roads, standardize payments nationwide, and enhance the overall driver experience.

This groundbreaking payment method, based on the global Society of Automotive Engineers (SAE) J3217 C-V2X standard, can also serve as a precursor for secure, standardized, and accurate transactions involving other services, such as parking.

Currently, motorists must pay tolls via multi-step mobile apps, bespoke transponders, or license plate identification systems that require validations. The disruptive C-V2X payment system will provide a seamless experience by displaying accurate toll notifications on in-vehicle screens, eliminate transponder incompatibility across the United States, ease congestion caused by toll gantries, and open the possibility for special offers or benefits to drivers of equipped cars.

“We have known for some time that cars will eventually become motorists’ wallets, used to pay for everything, from tolls and mileage-based road usage, to parking, to drive-through and other consumer services. The advent of the J3217 C-V2X standard puts United States at the forefront of the in-car payments innovation, and Indra is excited to help bring us one step closer to that connected future,” said Raul Ripio, Senior Vice President, Mobility & Technology, at Indra.

Commuters are not the only beneficiaries of this new approach. Toll operators, who currently rely on traditional electronic transponders and video tolling to collect tolls, face complex processes in managing these transactions and dedicate extensive roadside infrastructure to detect, identify, classify, and post transactions. In addition, agencies and operators are responsible for managing accounts, inventory, and maintaining equipment to ensure efficient toll payments. The C-V2X-based payment technology will enable toll agencies to further reduce operational costs by minimizing exception processing. Furthermore, this technology improves accuracy by precisely identifying and positioning vehicles at the lane level.

During the planned demonstration, in the OmniAir Interoperability Testing at the SunTrax Test Facility in Florida on May 12, 2025, the partners showcased how motorists approaching a toll area in connected vehicles will receive in-vehicle notifications with real-time tolling information, allowing drivers to review the toll rates and other details and confirm payments effortlessly. Additionally, Indra demonstrated how toll operators can accurately identify connected vehicles using C-V2X technology, distinguishing them from non-connected vehicles that use alternative toll payment methods.

This initial deployment project taps into the strengths of Indra, Qualcomm Technologies, and the development teams at Audi / Volkswagen Group, to align with regulatory initiatives aimed at propelling the U.S. as the global leader in C-V2X connectivity for transformative, safe, secure, and efficient mobility.

About Indra

Indra, one of the most foremost global technology companies, is a world leader in smart mobility, having completed over 2,500 projects in more than 100 cities and 50 countries on the five continents. Over the last twenty years, Indra has provided tolling systems to more than 20+ countries, with over 3,300 lanes in operation and over 50 Back Office Systems for toll motorways in 13 countries, Indra most recent delivery, I-66 Express Outside the Beltway, of an integrated all-overhead tolling, video-occupancy detection, ATMS, and ITS for managed lanes, with C-V2X infrastructure and Connected vehicle platform, is considered one-of-a-kind in the United States today. Indra has been awarded with the IBTTA Toll Excellence Award in the Private Sector Innovation in 2024 for this project in Virginia. Indra is part of the Indra Group, a holding company with more than 60,000 employees, local presence in 49 countries and commercial operations in more than 140 countries.

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