

GENIVI Alliance Case Study

Smart City Collaboration

The Nevada Center for Advanced Mobility along with the City of Las Vegas, the Nevada Department of Transportation, University of Nevada Las Vegas (UNLV), and the Regional Transportation Commission of Southern Nevada teamed up with the [GENIVI Alliance](#) on a connected vehicle, smart city collaboration pilot project aimed at addressing the city's top priorities to improve pedestrian safety and traffic flow in Las Vegas.



Launched in January 2017, the [GENIVI-Las Vegas Connected Vehicle Pilot](#) was a phased approach demonstrating how vehicle communications technology and vehicle data could integrate with the existing transportation planning infrastructure. The project leveraged GENIVI connected vehicle software to help with pedestrian safety and traffic congestion challenges faced in southern Nevada.

The overall objective of the pilot program was to deliver information to the driver regarding road conditions and other road users, including pedestrians, to create a safer and more connected transportation network. For example, data from the city infrastructure, when combined with connected vehicle location and speed, can inform drivers of an upcoming sidewalk or an offloading city bus that makes that area a "hot zone" for increased pedestrian traffic, with hopes that pedestrian safety is enhanced.

During the pilot, GENIVI deployed its [Remote Vehicle Interaction \(RVI\)](#) software as a proposed open standard for vehicle-to-server communication, securely passing vehicle data to city-run servers and actionable messages back to the vehicle driver. This allowed for vehicle data to be combined with city-managed data such as speed limits, crosswalk and bus stop locations, and bus location to alert drivers of road situations where caution is needed.

The connected vehicle pilot project demonstrated how software based on open standards for vehicle data identification and vehicle-to-server communications could benefit driver awareness with a goal of producing a safer and more connected transportation network in Las Vegas and Southern Nevada. The data gathered during the project period and analytics

reports provided Las Vegas an initial view of the potential value of data collected from “roving sensors” represented in connected vehicles. This gave hints to how future connected vehicle projects could equip the city with valuable insights for future city planning and infrastructure growth. It supplied the GENIVI Alliance with key learnings to further develop an open source software standard for vehicle-to-city communication and also provided GENIVI an entrance into the growing smart city context, which has opened up new opportunities in mobility and autonomous vehicles.

Since 2009, Inventures has supported the GENIVI Alliance with its many initiatives in developing and deploying open source software for connected vehicles deployed in the smart city. Inventures services supporting the GENIVI team over the year has included [membership management, financial services, communication and public relations, marketing services, certification management, program management, member meeting services, executive leadership, global headquarters services, workgroup collaboration and web/IT services.](#)