

US DOT releases nationwide deployment plan of vehicle-to-everything technologies

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The US DOT's new initiative aims to enhance road safety by promoting V2X communication technologies nationwide

On Aug. 16, the US Transportation Department (US DOT) released plans to deploy vehicle-to-everything (V2X) communication technologies as part of its plans to improve road safety. The plan, called [*Saving Lives with Connectivity, A Plan to Accelerate vehicle-to-everything \(V2X\) Deployment*](#), will guide the implementation of V2X technologies across the nation and supports the US DOT's goal to eliminate roadway fatalities.



Source: GettyImages/metamorworks

V2X is the umbrella term used for a vehicle's communication system, where information from sensors and other sources travel via high-bandwidth, low-latency, high-reliability links. It comprises several components including vehicle-to-vehicle (V2V), vehicle-to-infrastructure (V2I), vehicle-to-pedestrian (V2P) and vehicle-to-network (V2N) communication. V2X communication is considered one of the key enablers for fully autonomous driving in vehicles.

V2X communication systems are designed to allow vehicles and wireless devices to communicate with each other and roadside infrastructure, promoting a safer, more efficient transportation system. The plan aligns with the US DOT's broader goal, as outlined in its National Roadway Safety Strategy adopted in January 2022, to eliminate roadway fatalities.

The US DOT's plan, which was initially released for public comment in October 2023, emphasizes not only safety, but also mobility and efficiency via technological advancements. It addresses concerns such as privacy and consumer protection while aiming to create a more interconnected and streamlined transportation network.

The development and promotion of the V2X national plan involved collaboration across public and private sectors. It seeks to provide stakeholders with the necessary tools to foster a sustainable transportation system through the deployment of interoperable V2X technologies.

“The Department has reached a key milestone today in laying out a national plan for the transportation industry that has the power to save lives and transform the way we travel,” said US Secretary of Transportation Pete Buttigieg. “The Department recognizes the potential safety benefits of V2X, and this plan will move us closer to nationwide adoption of this technology.”

In conjunction with the national plan, the Federal Highway Administration announced nearly \$60 million in grants to three entities aimed at advancing the deployment of V2X technologies. These grants are intended to maximize the lifesaving capabilities of V2X communication by ensuring secure, interference-free communication across various devices and platforms, thereby supporting the broader goals of the US DOT's initiative to improve road safety across the nation.

According to the US DOT, the grants to recipients in Arizona, Texas and Utah will serve as “national models” to accelerate and spur new deployments of V2X technologies. The grants will promote the deployment of V2X technologies with the goal of advancing the full lifesaving potential of V2X communication, while ensuring connected technologies communicate securely and without harmful interference across a variety of devices and platforms.

The 5G Automotive Association (5GAA) has welcomed the publication of the US DOT's V2X Deployment Plan and the department's initiative to deploy V2X technologies across the country. “Today's release establishes clear objectives for future public and private investments in V2X in US

road transportation networks,” said 5GAA Executive Director for Americas John F. Kwant. “V2X technologies are key to enabling the deployment of connected motor vehicles and road-side infrastructure that can sharply reduce road fatalities, a key goal of the National Road Safety Strategy.”

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