



June 16, 2019

The Honorable Michael F. Doyle
Chair
Communications and Technology Subcommittee
Energy and Commerce Committee
United States House of Representatives
Washington, DC 20515

The Honorable Robert E. Latta
Ranking Member
Communications and Technology Subcommittee
Energy and Commerce Committee
United States House of Representatives
Washington, DC 20515

Dear Chairman Doyle and Ranking Member Latta:

In anticipation of Subcommittee on Communications and Technology of the Committee on Energy and Commerce upcoming hearing entitled “Our Wireless Future: Building A Comprehensive Approach to Spectrum Policy,” the Intelligent Transportation Society of America (ITS America) writes to underscore that the Federal Communications Commission (FCC) embraced the use of spectrum in the 5.9 GHz band to promote the development of technology that saves lives and improves the safety of the transportation system. It is time to move past the regulatory uncertainty of the past six years and provide road operators, road users, automakers, and truck manufacturers the environment they need to make our roads safer and save lives. It is time to accelerate the deployment of Vehicle-to-Everything (V2X) safety transportation communications technologies.

New and developing V2X technology that depends on the 5.9 GHz band is allowing us to finally address the lives lost on our nation’s roads. Vehicle-to-Vehicle (V2V), Vehicle-to-Infrastructure (V2I), and Vehicle-to-Pedestrian (V2P) – collectively referred to as V2X – have incredible potential to dramatically improve the safety, accessibility, and operational performance of road and vehicle safety; this includes all V2X technologies – Dedicated Short Range Communications (DSRC) as well as Cellular vehicle-to-everything (C-V2X).

Safety is the top priority of the nation’s transportation system. According to the U.S. Department of Transportation’s National Highway Traffic Safety Administration (NHTSA) preliminary statistics, 36,750 people lost their lives in motor vehicle crashes in 2018, which roughly breaks down to slightly more than 100 fatalities per day. NHTSA estimates that safety applications enabled by V2V and V2I could eliminate or mitigate the severity of up to 80 percent of non-impaired crashes, including crashes at intersections or while changing lanes, and 70% of crashes involving trucks happened in situations that could be addressed by V2V systems. V2V deployments available today include systems that provide emergency braking. Another benefit of connected vehicles is their ability to be the “eyes and ears” of other vehicles. Non-Line-of-Sight awareness means that drivers and vehicles will be able to see around corners and receive information about hazards in the roadway, even if they cannot see the hazard. V2V communications help move traffic more efficiently with demand responsive traffic signaling and allow emergency response vehicles to preempt signals.

The concept of V2I is to provide the vehicle and the driver information about infrastructure operations -- weather and pavement condition, how signals are directing traffic, and even the location of potential hazards at intersections and other critical road safety hotspots. V2I applications include red light violation warnings, reduced speed zone warnings, curve speed warnings, and spot weather impact warnings. V2I soon will support other applications that will disseminate the condition of the infrastructure, such as bridge integrity, and may even collect data from cars that describe pavement condition. According to NHTSA, V2I technology helps drivers safely negotiate intersections and could help prevent 41 to 55 percent of intersection crashes. Another connected vehicle safety application that helps drivers with left turns at intersections could help prevent 36 to 62 percent of left-turn crashes, according to NHTSA. In



addition to the lives saved, just these two applications alone could prevent up to 592,000 crashes and 270,000 injuries each year.

Pedestrian deaths increased by an estimated four percent and “pedalcyclist“ deaths increased by an estimated 10 percent in 2018, according to NHTSA’s preliminary statistics. V2X will enable deployment of safety solutions to protect these vulnerable users of the system. By allowing vehicles to communicate with users through sensors or vehicle-to-device communication, we can significantly reduce the number of people killed on our roadways. V2P encompasses a broad set of road users - people walking, children being pushed in strollers, people using wheelchairs or other mobility devices, passengers embarking and disembarking buses and trains, and people riding bicycles and scooters.

Public sector agencies can also reap the benefits of V2X. Tens of millions of dollars have already been invested in this effort, including incorporating connected vehicle (CV) technologies into infrastructure. Through the combined efforts of the public and private sectors, hundreds of millions of dollars have been invested in development, rigorous testing, and deployment of today’s V2X solutions. A majority of states and dozens of cities are deploying or planning to deploy CV technology.

- The Regional Transportation Commission of Southern Nevada recently became the first in the world to put roadway information into a digital format. As connected vehicles drive over the actual roadway, they can pick up differences between the “digital” road and the actual road. This could eliminate the need for agencies to manually examine roadways for striping or automatically report potholes instead of waiting for enough drivers to incur tire damage before fixing them. These vehicles will also give an up-to-the-minute snapshot of the system – how it is performing, are there any incidents, and live weather conditions.
- As part of the USDOT’s Connected Vehicle Pilot Program, Wyoming is demonstrating what rural states can do to benefit travelers. Wyoming is deploying CV technology along the 402 miles of I-80 where winter wind speeds and gusts result in trucks blowing over and often lead to road closures. The Wyoming Department of Transportation (WYDOT) CV pilot focuses on commercial vehicle operators by developing applications to support advisories, including roadside alerts, parking notifications, and dynamic travel guidance. WYDOT is equipping 400 vehicles, a combination of fleet vehicles and commercial trucks with onboard units (OBUs). Of the 400 vehicles, at least 150 would be heavy trucks that are expected to be regular users of I-80. In addition, of the 400 equipped-vehicles, 100 WYDOT fleet vehicles, snowplows, and highway patrol vehicles will be equipped with OBUs and mobile weather sensors.

Driver-assistive truck platooning enabled by V2V and Vehicle-to-Cloud (V2C) communications links the active safety systems, braking, and acceleration between pairs of trucks. Using connected vehicle technology, trucks and their drivers benefit from shared safety and awareness, and the trucks can safely operate at closer distances to form a ‘platoon.’ This kind of connected “cooperative” automation improves safety and driver teamwork as well as fuel efficiency and emissions. Since 2018, a number of U.S. truck OEMs and technology companies have been running commercial trials of truck platooning, working with major trucking fleets. These systems combine best-available truck safety systems with V2V, making trucks much safer in both individual operation and when paired in platoons. Truck platooning systems using V2V have been developed in the United States by companies such as Kenworth, Peterbilt, Volvo Trucks, Navistar, and Peloton Technology. In addition, in the EU, all six European truck OEMs have developed truck platooning systems enabled by V2V and the same is true for top OEMs in Asia.



Currently, truck platooning systems using V2V continue to move freight in the United States daily as part of an ongoing fleet activity, setting the stage for growing commercial use of platooning.

However, V2X communications are by no means guaranteed. The 5.9 GHz band for V2X is being targeted by cable companies and their supporters, who are seeking additional spectrum for WiFi and are aggressively pressuring the FCC to force V2X to share that spectrum with unlicensed consumer broadband devices. Under this threat to the V2X band, wisely reserved by the federal government to allow for common-standard, cooperative vehicle safety that the marketplace cannot provide on its own, now is the time for national leadership to put public safety ahead of entertainment – particularly given that cable/WiFi solutions can expand into other areas of available spectrum. Speed matters when safety information is involved. Sharing the band could put lives at risk. What if a driver knew, in fractions of a second, that an airbag deployed in a car in front of him/her? Alternatively, that the car in front, around the next curve, was sliding on black ice? Or a pedestrian is around the next corner? Thanks to V2X technology, that driver would react – and avoid a crash. It is crucial to note that V2X can do things that are impossible for the best active safety systems or even automated vehicles: V2X enables vehicles and their drivers to see around corners, over hills, and perceive the status, non-visible characteristics and operational intent of surrounding vehicles. This allows for cooperative safety applications that cannot be achieved in other ways – dramatically improving safety for all vehicles and roadway users. Notably, V2X provides solutions that will allow for safer interaction between vehicles operating at all levels of automation – from traditional human-driven to driverless.

Deploying life-saving technologies that allow cars, buses, trucks, bicycles, pedestrians, motorcycles, streetlights, and other infrastructure to talk to each other will ensure more people arrive home safely. Given the unique safety solutions that can only be provided by V2X and which will strongly complement future advanced vehicle safety systems and automation, it would be a tremendous mistake if the 5.9 GHz band is not firmly preserved and protected.

ITS America supports preserving the entire 5.9 GHz band for existing, new, and developing V2X technologies. We want to make sure all three phases of testing for the 5.9 GHz band are complete before the FCC finalizes any action related to sharing for any non-safety related purposes. Any unlicensed use in the band should be done without harmful interference to the incumbent technology or other intelligent transportation systems technologies. It is time to move past the regulatory uncertainty and accelerate the deployment of life-saving V2X transportation technologies.

Sincerely,



Shailen P. Bhatt
President and CEO
Intelligent Transportation Society of America

Cc: House of Representatives Communications and Technology Subcommittee
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