

Understanding Electronic Identification for Trucks

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The Federal Motor Carriers Safety Administration (FMCSA) has opened discussions on a proposed requirement to electronically identify trucks to roadside law enforcement. This ICSA whitepaper will help you navigate the many unanswered questions about electronic identification.

What is a “UID”?

UID means Uniform or Universal Identification Device. It is an electronic device that transmits pertinent data to identify a truck, and potentially much more information, to roadside enforcement.

The Commercial Vehicle Safety Alliance (CVSA), which represents commercial vehicle law enforcement in North America, petitioned FMCSA to require UIDs on all trucks. CVSA separately petitioned the National Highway Traffic Safety Administration (NHTSA) to require UIDs on all newly-manufactured trailers and semitrailers.

The FMCSA ANPRM

FMCSA granted the CVSA petition and published an Advance Notice of Proposed Rulemaking (ANPRM) to discuss issues surrounding UIDs. NHTSA has yet to act on its CVSA petition related to trailers and semitrailers.

An ANPRM is how a regulatory agency tests out a proposal or solicits ideas before it drafts its NPRM, the actual proposed rulemaking. In the UID ANPRM, FMCSA sought feedback on these questions:

- Should UIDs be required?
- What information should be transmitted by a UID – the truck’s identity data or much more?
- Which vehicles would be required to have a UID – all trucks or only new trucks?
- Should a truck driver’s Personally Identifiable Information (PII, such as social security number, full name, phone number, email address) be included in the data transmitted by the UID?
- How exactly should the information be transmitted and received – what telecommunications frequency, for example?
- How would the transmitted information be used?



This whitepaper will explore many of those ANPRM questions. While the ANPRM asked about the potential exclusion of a truck driver’s PII, it made no mention about whether information that a motor carrier may deem *proprietary*, such as cargo hauled, routes traveled, and customers data should be excluded.

The CVSA Petition

While FMCSA asked questions, CVSA revealed a clear intent in its petition. CVSA said it seeks to “touch” more trucks than the 1% of trucks which currently go through weigh stations or are inspected at roadside. To do this, CVSA has formally adopted a “Level VIII” inspection standard, also known as “Wireless Roadside Inspections” or WRI.

What is a Level VIII inspection? The CVSA website states the following:

Level VIII – North American Standard Electronic Inspection

An examination that includes those items specified under the North American Standard Electronic Inspection Procedure. An electronic inspection must include, where required and/or applicable, a descriptive location, including GPS coordinates; electronic validation of who is operating the vehicle; appropriate driver’s license class and endorsement(s) for vehicle being operated; license status; valid Medical Examiner’s Certificate and Skill Performance Evaluation (SPE) Certificate; current driver’s record of duty status; hours-of-service compliance; USDOT or (Canada) NSC number; power unit registration; operating authority; Unified Carrier Registration (UCR) compliance; and federal out-of-service orders.



The North American Standard Level VIII Electronic Inspection is an inspection conducted electronically or wirelessly while the vehicle is in motion without direct interaction with an enforcement officer. To be considered a complete Level VIII Electronic Inspection, a data exchange must include each of the required and/or applicable data points listed in the CVSA North American Standard Level VIII Electronic Inspection definition.

A Little History

CVSA originally petitioned FMCSA requesting action to mandate UIDs in 2010. FMCSA denied that petition in 2013. FMCSA concluded that the petition lacked the information necessary to estimate the costs and benefits of an electronic ID mandate. CVSA turned to the National Highway Traffic Safety Administration (NHTSA), which has jurisdiction over new vehicle manufacturing standards, with a revised petition requiring UID on new trucks only. NHTSA rejected the petition for the same reason as FMCSA in 2013.

In 2015, FMCSA reversed its UID decision but took no formal action to implement the requirement. The stated purpose of the CVSA UID petition was to facilitate “wireless roadside inspections” (WRI). However, key Congressional committees discouraged WRI until questions about government monitoring, data privacy, and how the technology would be paid for were satisfactorily answered. (As noted, WRI is another name for CVSA’s “Level VIII” inspection regimen.)

During the 2021 Infrastructure Investment and Jobs Act (IIJA) debate, CVSA and several transportation industry groups supported an amendment requiring an electronic ID on all new trucks. The groups agreed that UID would be limited to a single point of data, the vehicle identification number (VIN). The VIN is specific to each vehicle and easily cross-referenced by governmental entities to access additional information -- carrier name, license plate number, and USDOT number. The VIN amendment to the IIJA passed the House but was not included in the final IIJA bill.

What Would Happen Following a UID Transmission?

For over 10 years, CVSA has sought a regulation requiring UIDs on some if not all trucks. To facilitate the Level VIII inspection, the UID would need to transmit much more than a truck's VIN. The UID would instead need to transmit all the data checked by law enforcement during a thorough roadside or weigh station inspection.

But law enforcement cannot simply pull a truck out of the traffic stream and issue citations based *solely* on a UID's electronic transmission. Why? Because 14 states have probable cause statutes, founded on constitutional due process concerns. These laws require law enforcement to directly observe an individual or vehicle violation before taking enforcement action, not merely to electronically identify a possible violation through a UID transmission. Similar due process concerns were among those raised by Congress in its review of WRI. At best, a UID transmission would become a screening device for law enforcement.

In comparison, electronic weigh station bypass programs – two major private systems and several operated by jurisdictions – overcome due process concerns because motor carriers volunteer to participate. These bypass programs allow participation only by qualified motor carriers with superior safety records, as measured by official government data that carriers can review and, as necessary, challenge. So, a physical inspection would need to take place if a UID transmission revealed a possible violation.

Roadside inspections would require safely pulling a truck out of the traffic stream to a location with sufficient room to conduct the inspection. That may not be practical. Most likely, the inspections would be conducted at existing weigh stations. There, due process would once again come into play – law enforcement would need to conduct a visual inspection and directly examine vehicle, shipment and driver documents before a citation for a violation could be issued.

Which Trucks Would Have a UID?

As the UID history shows, there are different perspectives on which trucks would have a UID. CVSA initially agreed to the IJA amendment, which applied only to new trucks. Its FMCSA petition speaks to all trucks. On the other hand, by the nature of NHTSA's jurisdiction over vehicle manufacturers, that CVSA petition would only cover new trailers and semitrailers.



It matters. Older trucks, by age and operation, tend to have more maintenance issues requiring inspection. Were UIDs limited to new trucks, the safety benefit of those older truck inspections could be lost. There is also an equity issue: operators of new trucks, those with fewer UID-identified equipment issues, could gain a competitive advantage over operators of older trucks when bypassing weigh stations. Older trucks are also common in local and short haul operations, where ELDs (electronic logging devices) are often not required. So, even a broad UID mandate, which included the transmission of driver data, would not capture the hours-of-service status of many drivers.

How Much Would UIDs Cost?

This is another great unknown. First, there's the population of trucks required to carry a UID – all trucks or only new trucks? Second, which truck data must be UID be capable of transmitting? To facilitate all the data for a CVSA Level VIII inspection, the UID must be compatible with numerous truck data systems and equipment sensors. Plus, the UIDs would need not only to transmit data

How Much Would UIDs cost? - continued

but also to receive communications directing trucks to pull into or bypass a weigh station. Third, how secure will the transmissions be? Truck operators will demand data encryption to protect their proprietary information and drivers' identities.

But there is another cost which the CVSA petition and the FMCSA ANPRM do not explore. The UID proposals speak of transmissions using the 5.9 GHz telecommunications spectrum. Existing weigh station bypass programs utilize a different spectrum. That means to implement the UID system as proposed, states would need to set up their own broadcast capabilities, including overhead UID readers, message boards directing trucks chosen for inspection into weigh stations, and communications to trucks that need not pull in. All that equipment and software is currently provided for free to those states participating in an existing weigh station bypass program. It's safe to say at least a portion of a state's UID program cost would be borne by truck operators.

How Would the UID Data Be Used?

As envisioned by CVSA, the UID transmissions would carry information related to truck, motor carrier and driver safety and compliance. ICSA members are committed to safety. Truck inspections, where conditions indicate, can help improve highway safety. Competitive equity is also improved when all truck operators are held to the same standards.

Once in the hands of government, that same UID data could be used for other purposes- such as implementing a truck weight-distance or mileage tax. The UID could become the equivalent of a taxi meter. Inspections could also prompt repairs and remove unsafe vehicles from the road.

Would UID's Improve Safety?

The top causes of truck crashes lie not with vehicles. Of the top 19 causes of truck crashes, only three – brake problems, tires and load securement – are revealed during inspections. Speeding, distracted driving, following too closely and other unsafe driver behaviors must be observed to be enforced. In car-truck crashes, over 70% of the causation is attributable to the passenger car driver... the vehicle without a UID.

What Can Be Done Instead?

Listen to professional truck drivers. A survey shows that 27% of them would leave the trucking industry if UIDs transmitting their Personally Identifiable Information were imposed. Instead, they offer three highway safety improvements:

- 1) Reduce truck driver detention and delay. Delays encourage speeding and detention cuts into needed rest.
- 2) Improve entry-level truck driver training. Training shortcuts and waivers granted during the COVID-19 pandemic produced truck drivers who were not truly ready.
- 3) Add safe and convenient truck parking. Rested truck drivers are safer truck drivers.

What Can You Do?

Maintain your membership in ICSA so that you are receiving frequent regulatory updates. Talk with other owners and drivers to make them aware of the issue. Download this white paper and share it with others in our industry who may not be aware of the push to mandate UIDs. ICSA will continue to educate regulators about the many problems with mandating UIDs, including the lack of data showing this requirement will improve safety.

ABOUT ICSA: This Arizona-based non-profit was formed in 2019 to provide independent contractors and small carriers with safety tools, safety education, a range of services and critical information they need to be a part of improving safety on our highways. In turn, carriers that meet ICSA safety requirements may qualify to participate in ICSA's group insurance program.

Visit our website and learn more about our team and services. Contact ICSA today at <https://www.safecarriers.org/contact-us/> or 866-SAFE-TRK

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