U.S. Department of Transportation
Federal Motor Carrier Safety Administration

March 2020

The Innovative Technology Deployment (ITD) Grant Program, 2019 Annual Report

On December 4, 2015, the Fixing America's Surface Transportation Act, 2015 (FAST Act) (Pub. L. 114-94) established the Innovative Technology Deployment (ITD) Grant Program, and placed the ITD Grant Program under the Motor Carrier Safety Assistance Program (MCSAP) High Priority (HP) Program, which reduced the burden on States that apply for multiple grants annually. The FAST Act allowed for at least an 85/15 Federal funding to State match split, expanding States' access to these critical technology projects. Lastly, the FAST Act removed the annual caps for funding requests, as well as other statutory program requirements, allowing the Federal Motor Carrier Safety Administration (FMCSA) the flexibility to make necessary program changes through policy.

This report details ITD funding activities for fiscal year (FY) 2019 and ITD program activities for calendar year 2019.

BACKGROUND

Established as a separate operating administration within the U.S. Department of Transportation (USDOT) on January 1, 2000, pursuant to the Motor Carrier Safety Improvement Act of 1999, FMCSA works to reduce crashes, injuries, and fatalities involving large trucks and buses.

The ITD Program is a key component of FMCSA's drive to improve commercial motor vehicle (CMV) safety. The ITD Program supports this safety mission by providing grant funds to States for:

- Improving safety and productivity of motor carriers, CMVs, and their drivers.
- Improving efficiency and effectiveness of CMV safety programs through targeted enforcement.
- Improving CMV data sharing among States and between States and FMCSA.
- Reducing Federal, State, and industry regulatory and administrative costs.

ITD PROGRAM FUNDING

Eligibility

To be eligible for ITD deployment funds, a State must meet the following requirements:

- Have an FMCSA-approved ITD Program Plan and Top-Level Design (PP/TLD).
- Certify that its ITD deployment activities are consistent with the National Intelligent Transportation Systems and commercial vehicle information systems and networks architectures and standards, and agree to execute interoperability tests developed by FMCSA.
- Agree to promote interoperability and efficiency to the extent practicable.[1]

Use of Funds

Grant funds may be used for deployment activities for new and innovative advanced technology solutions that support commercial vehicle information systems and networks.

Funds may also be used for planning activities, including the development or updating of a

[1] FAST Act, Section 31104(a)(3)(C).

PP/TLD (described below), and for operation and maintenance (O&M) costs associated with innovative technologies.

Program Plan

The PP/TLD is a technical document that provides management framework and system architecture to guide program deployment and to advise policy and decision makers regarding the funding and technical resources required for successful program implementation. The PP/TLD describes the various systems and networks at the State level that must be refined, revised, upgraded, or built to accomplish Core or Expanded capabilities.

CORE ITD

ITD consists of Core and Expanded functionalities. Core ITD capabilities exist in three program areas:

1. Safety Information Exchange

Designed to ensure the safety of motor carriers and CMVs through improved data collection and enhanced data sharing (e.g., inspection reports, credentials status) across Agency and jurisdictional boundaries. Specific Safety Information Exchange items include:

— Using Aspen (or equivalent) automated inspection software at all major inspection sites.
— Connecting to the national Safety and Fitness Electronic Records (SAFER) system to provide exchange of interstate carrier and vehicle safety data among States.
— Implementing a State-specific Commercial Vehicle Information Exchange Window (CVIEW) system or equivalent to exchange credential and safety data with the national SAFER system, which then makes the data available to other jurisdictions.

2. Electronic Credentials Administration

Designed to automate the application, processing, and issuance of motor carrier operating credentials and permits to improve the efficiency of both motor carriers and State credentialing agencies. Specific Electronic Credentials Administration items for States include:

— Automating the processing of International Registration Plan (IRP) and International Fuel Tax Agreement (IFTA) credentials and conducting at least 10 percent of transaction volume electronically.
— Participating in the IRP Clearinghouse to share information across jurisdictions and automate funds settlement between jurisdictions.
— Participating in the IFTA Clearinghouse to share information across jurisdictions and automate funds settlement between jurisdictions.

3. Electronic Screening (e-Screening)

Designed to target enforcement resources on high-risk and non-compliant motor carriers. E-screening systems identify CMVs while they are in motion, verifying size, weight, and credentials information and reviewing associated carriers' past safety performance. They then communicate safely to drivers to either pull in or bypass the roadside inspection station.

Vehicles that are: 1) properly credentialed; 2) operated by a motor carrier with a history of safe operations; and 3) within weight limits (if the site is instrumented for weight measurements) are allowed to bypass inspection facilities (although such vehicles are still subject to random inspection). Specific e-screening items include:
— Implementing e-screening at a minimum of one fixed or mobile inspection site, and
— Being ready to replicate this functionality at other sites.

EXPANDED ITD

Once a State is certified as having deployed all Core ITD functionality, it is deemed to be Core-compliant and must maintain these capabilities. Once Core-compliant, a State may use its Federal HP-ITD Deployment Grant funding to deploy Expanded ITD functionality. The Expanded portion of the ITD Program provides more flexibility than the Core component of the program.

States are not required to deploy a set of fixed capabilities or to enable certain technologies as part of Expanded ITD, but rather are able to choose the capabilities they wish to deploy. This "cafeteria approach" allows States to customize their ITD programs and focus their technology resources on the projects that are most important to them.

While States can deploy a variety of capabilities as part of their Expanded ITD programs, FMCSA supports a specific set of key capabilities. FMCSA, in conjunction with public and private stakeholders, initially identified 40 capabilities that could be integrated into the ITD program. These capabilities were segmented into four Expanded ITD program areas:

1. Driver Information Sharing.
2. Enhanced Safety Information Sharing
3. Smart Roadside
4. Expanded Electronic Credentialing

Based on input from industry and State agencies, FMCSA further developed and defined a list of high-priority Expanded ITD capabilities, described in Table 1.

Table 1. High-priority Expanded ITD capabilities.

Program Area	Capability	Description
Driver Information Sharing	Driver Snapshots	• Use and maintain driver snapshots in all processes that require information about drivers (e.g., enforcement, credentialing, hiring, inspection).
Driver Information Sharing	Access to Driver Data	• Improve enforcement personnel and carriers' access to driver information to target driver safety risks.
Enhanced Safety Information Sharing	Safety Data Quality	• Establish data quality measures (timeliness, accuracy, and integrity), especially for those data elements used in making safety decisions. • Regularly check data used in ITD processes for quality; purge stale data; and correct errors.
Enhanced Safety Information Sharing	Carrier Access to Safety Data	• Improve carriers' ability to review safety-related data (carrier, vehicle, driver, cargo, crash, citation, inspection) collected by a State or Federal agency in a timely manner. • Consider proactively delivering safety data to the carrier.
Smart Roadside	Roadside Access to Data	• Provide integrated and improved access for roadside personnel to data stored in infrastructure systems (e.g., SAFER, Motor Carrier Management Information System [MCMIS], commercial driver's license [CDL] data systems).
Smart Roadside	Virtual Weigh Stations	• Expand the use and capabilities of virtual/remote enforcement sites to increase the effectiveness of enforcement.
Expanded e-Credentialing	Access to Credentials Data	• Enhance interfaces and systems for information sharing to provide improved access to more current and accurate credentials information for authorized stakeholders.
Expanded e-Credentialing	Better e-Credentialing	• Reduce complexity and redundancy for users by offering access to multiple credentials from a single source. • Expand the types of credentials that are available electronically (e.g., add oversize/overweight [OS/OW] and hazardous materials permitting).

Table 2 summarizes the numbers and amounts of CVISN[2]/ITD grants awarded by FMCSA during FYs 201106–19.

Table 2. Total value and number of Federal CVISN/ITD deployment grants awarded by FMCSA, 2011–19.

2011	20	$17,010,364
2012	22	$15,609,917
2013	20	$15,785,861
2014	23	$14,906,179
2015	21	$12,373,949
2016	27	$16,834,069
2017	28	$21,393,837
2018	26	$21,757,930
2019	19	$19,057,095

CALENDAR YEAR 2019 ITD PROGRAM ACTIVITIES

During calendar year 2019, major activities occurred in the following areas:

- States continued their deployment of ITD functionality.
- FMCSA conducted the 2019 HP-ITD Notice of Funding Opportunity (NOFO) webinar outlining national priorities and grants management information.
- FMCSA hosted monthly program manager teleconference calls with State and industry partners.
- FMCSA awarded FY 2019 HP-ITD grant funds amounting to $19,057,095.
- FMCSA conducted a joint MCSAP-ITD-PRISM[3] Workshop in April 2019.
- FMCSA conducted Core Compliance Reviews in six States in FY19 (Alabama, Kentucky, Maine, Oregon, Texas, and Wisconsin). Three reviews were conducted remotely via webinar (Alabama, Kentucky, and Wisconsin), and three were onsite (Maine, Oregon, and Texas).

Highlights

Electronic Screening - In FY16, FMCSA began providing roadside enforcement personnel the ability to differentiate those inspections conducted as a result of an e-screening decision. When comparing these particular inspections (224,394 in FY19) with the most recent data available for all inspections (3,162,132 in FY18), we determined the vehicle out-of-service (OOS) rate resulting from e-screening (21.18 percent) slightly exceeded the overall national OOS rate of 20.63 percent. The national violation rate for all e-screened inspections in FY17 was 49.15 percent.

Deployment of ITD Functionality

In calendar year 2019, 43 States had completed their deployments of Core ITD functionality and had entered the Expanded portion of the program (as illustrated in Figure 1). The State of Rhode Island became the latest to be Core ITD certified by deploying program functionality with regard to Electronic Screening, Safety Information Exchange, and Electronic Credentials Administration.

All States and the District of Columbia have deployed at least one element of Core functionality. Table 3 summarizes the number of States that have deployed each Core element. As indicated in the table, 46 States have implemented a CVIEW and enabled interstate sharing of credential data. Forty-Six States have implemented electronic credentialing for IRP, and 45 States have done so for IFTA. Two States have implemented electronic credentialing for IRP, but not IFTA. One State (NH) is IFTA certified, but not IRP certified. All jurisdictions have deployed the Aspen inspection software or an equivalent, and the vast majority are currently participating in the IRP and IFTA clearinghouses (49 and 48, respectively). Alaska and Hawaii are exempt from participating in IRP and IFTA, and DC is exempt from IFTA;

[2] Commercial Vehicle Information Systems and Networks, the predecessor deployment grant program administered by FMCSA under the authority of 49 U.S.C. § 31106.

[3] Performance and Registration Information Systems Management

therefore, only 49 jurisdictions are required to deploy IRP-related functionality and 48 to deploy IFTA-related functionality. Forty-seven States have a form of e-screening implementation.

Several States in the Expanded phases of their ITD programs undertook projects to upgrade their systems (CVIEW, IFTA/IRP electronic credentialing), deploy and/or enhance online OS/OW permit systems, or extend e-screening implementations to other sites within their State.

Figure 1. National map of functionality deployment in FY 2019.

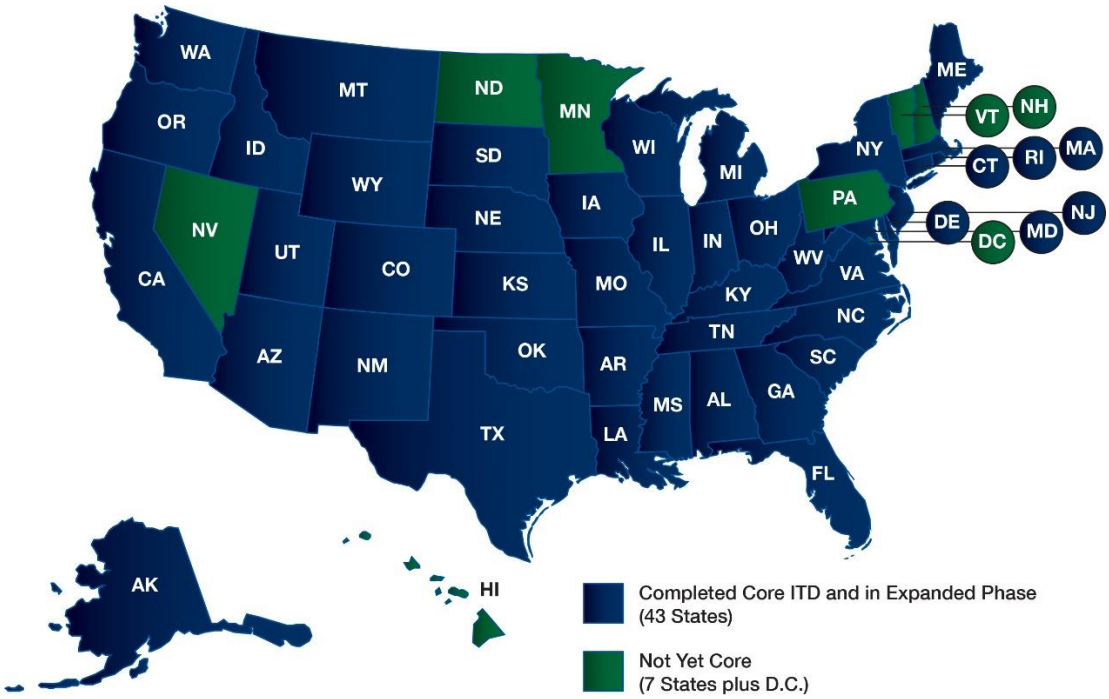


Table 3. Number of States deploying Core ITD elements, December 31, 2019.

Core ITD Element	Number of States That Have Deployed Functionality (a)	Total Number of Applicable States (b)	Percent of Applicable States with Functionality Deployed (a/b)
Safety Information Exchange			
– Aspen or equivalent	51	51	100%
– CVIEW or equivalent	46	51	90.2%
Credentials Administration*			
– Automated processing of International Registration Plan (IRP)	46	49	93.9%
– Automated processing of International Fuel Tax Agreement (IFTA) (includes tax filing)	45	48	93.8%
– Data exchange with IRP Clearinghouse	49	49	100%
– Data exchange with IFTA Clearinghouse	48	48	100%
Electronic Screening (e-Screening)			
– Deployment of e-screening at one site (minimum)	47	51	92.1%

Note: *States include the District of Columbia.*
** Alaska and Hawaii are exempt from participating in the Credentials Administration (IRP and IFTA). District of Columbia is exempt from IFTA.*

ITD FY 2019 Grant Funding

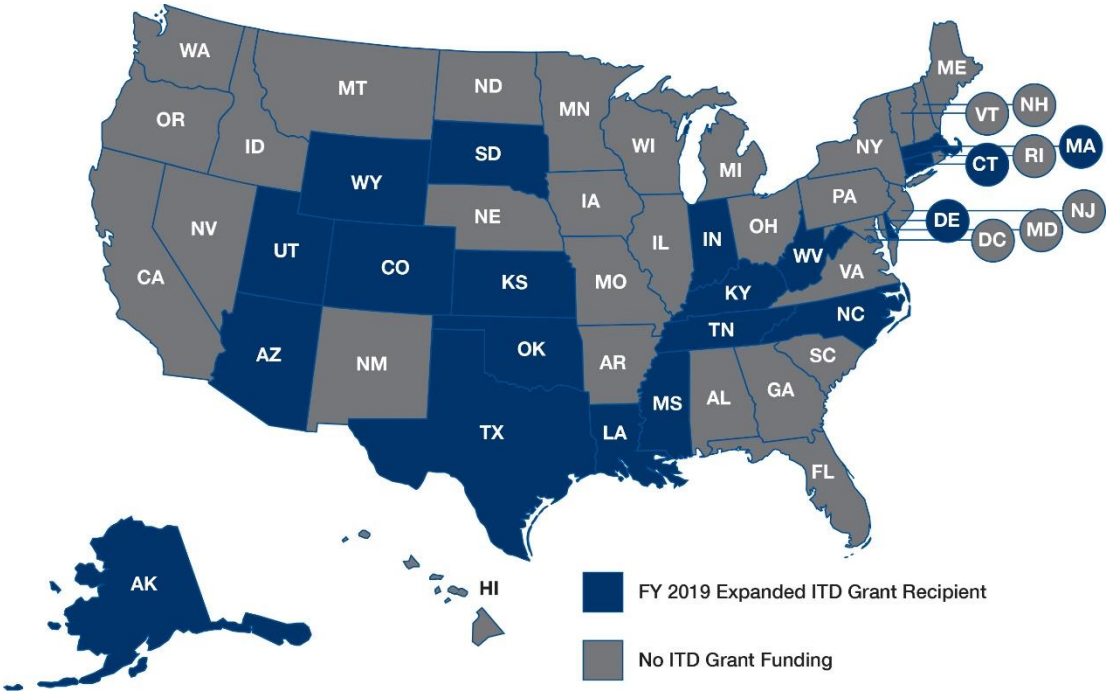
In FY 2019, FMCSA distributed a total of $19,057,095 in Federal HP-ITD deployment funding to 19 States. All of this funding went to support the deployment of Expanded functionality (Figure 2). No States asked for funding to help them become Core ITD certified.

State projects awarded 2019 HP-ITD funds addressed four of the five National priorities as outlined in the associated NOFO. Seven projects, accounting for 7 percent of total funds awarded, address the "Improve Credentialing Data Quality" priority by allowing certain jurisdictions to improve their data quality through updating systems and/or replacing outdated technologies. Nineteen projects, accounting for 50 percent of total funds awarded address the "Innovative Technologies" priority by deploying technologies to detect CMV out-of-service conditions that would severely impact the safety of the motoring public. These technologies include: Tire Anomaly Detection, Thermal Brake Inspection system, Electronic Screening, and Virtual Weigh Stations. These 2 NOFO National priorities reflect 57 percent ($11,521,323) of total funds awarded in FY19.

Thirty-eight projects, accounting for 32 percent of total funds awarded ($6,575,372) went to address other typical projects outlined in the MCSAP comprehensive policy.

The remaining 3 projects, or 4 percent of funds awarded ($960,400), went to support deployed systems and program administration addressing various ITD Core program areas.

Figure 2. States receiving Federal HP-ITD funding in FY 2019.



For more information about the ITD Grant Program, please visit:

https://www.fmcsa.dot.gov/information-systems/itd/innovative-technology-deployment-itd

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APPENDIX A: SUMMARY OF STATE ITD 2019 GRANT RECIPIENTS AND FUNDED ACTIVITIES

State	Core Compliant	FY 2019 Core Grant	FY 2019 Expanded Grant	Funded Projects/Activities
Alaska	Yes	$0	$1,520,013	The State of Alaska, Department of Transportation and Public Facilities, Measurement Standards and Commercial Vehicle Enforcement received funding for the State Wide Oversize and Overweight Permitting System Replacement project and to Update Alaska's ITD Program Plan/Top Level Design (PP/TLD).
Arizona	Yes	$0	$1,148,560	The State of Arizona Department of Transportation received funding for a Mobile Enforcement Van for Virtual Weigh Stations, Enhanced Capabilities at Stand-alone WIM sites, and Operations and Maintenance of ITD Systems.
Colorado	Yes	$0	$765,000	The State of Colorado received funding for a Thermal Brake Inspection System project.
Connecticut	Yes	$0	$1,031,050	The Connecticut Department of Motor Vehicles received funding to develop a Program Plan/Top Level Design, and for Motor Carrier Portal Development Integration. In addition, funding was provided for the Connecticut DOT Oversize Overweight Automated Permitting System.
Delaware	Yes	$0	$1,372,646	The Delaware Department of Transportation received funding for a Tire Abnormality Detection System, an ITD/PRISM Web Site & Trucker Portal for Delaware, an Oversize/Overweight Hauling Permit System Technology Upgrade, and ITD Program Management operations and maintenance.
Indiana	Yes	$0	$935,000	The Indiana Department of Transportation received funding for CVIEW Enhancements and a 360SmartView Expansion project.
Kansas	Yes	$0	$150,000	The Kansas Highway Patrol received funding for an ITD Program Support project.

State	Core Compliant	FY 2019 Core Grant	FY 2019 Expanded Grant	Funded Projects/Activities
Kentucky	Yes	$0	$1,900,000	The Executive Office of the Commonwealth of Kentucky received funding for the following projects: Enhancements to CVIEW; Enhancements to the Kentucky Automated Truck Screening (KATS) system; Installation of KATS system; Replacement of Roadside Screening Equipment; Installation of a Tire Anomaly Classification System; Enhancements to their Motor Carrier Portal; IFTA/IRP Data Quality; Driver Focus Camera to KATS Pilot; Enhancements to IFTA Processing Consortium Portal; and Installation of KATS System Monitoring.
Louisiana	Yes	$0	$1,099,800	The State of Louisiana Department of Transportation and Development received funding for the following projects: Mobile Trailer E-Screening, Oversize/Overweight Permitting System Enhancement, Modifications to IRP Clearinghouse Interface; for IFTA and IRP System operations and maintenance; and for an ITD Projects Management System Architect.
Massachusetts	Yes	$0	$828,000	The Massachusetts Department of Transportation RMV Division received funding for a License Plate Reader Camera System Deployment project.
Missouri	Yes	$0	$502,818	The Missouri Department of Transportation received funding to install a Tire Detection System, and for a Weigh-in-Motion project.
North Carolina	Yes	$0	$773,500	The North Carolina Department of Public Safety received funding for the Statesville Eastbound Weigh Station I-40 project.
Oklahoma	Yes	$0	$1,615,425	The Oklahoma Department of Transportation received funding for an Optical Character Reader E-screening project and related travel, and Operations and Maintenance for the Oversize/Overweight Permitting System project.
South Dakota	Yes	$0	$1,151,476	The South Dakota Department of Transportation received funding for the I-29 Sisseton Tire Anomaly & Thermal Brake Inspection project, and the IRP/IFTA System Replacement project.

State	Core Compliant	FY 2019 Core Grant	FY 2019 Expanded Grant	Funded Projects/Activities
Tennessee	Yes	$0	$552,000	The Tennessee Department of Safety and Homeland Security received funding for a Fixed Inspection Site Infrared-Based Screening System project, Program Management Support, and an Intrastate Operating Authority CVIEW Check project.
Texas	Yes	$0	$1,096,500	The Texas Department of Motor Vehicles received funding for the Texas IRP System Upgrade and Program Travel.
Utah	Yes	$0	$1,281,410	The State of Utah Department of Transportation received funding for the following projects: UROUTE Roadway Network Enhancement, Motor Carrier System Upgrade, Remote E-Screening Site, E-Screening Variable Message Sign Upgrade, and Tire Anomaly Screening System; and for Utah ITD Program Support.
West Virginia	Yes	$0	$1,249,075	The West Virginia Division of Motor Vehicles received funding for the following projects: Maintenance of Effort for CVIEW, Ensure Safety Data Quality, IRP System Maintenance, Electronic Credential Training, Carrier Training for Online Services, System Modernization-Data Cleansing, and Enhancement of Fixed Screening Site.
Wyoming	Yes	$0	$85,000	The Wyoming Department of Transportation Highway Patrol received funding for an Expanded PP/TLD project.
Total FY 2019 Funds Awarded				**$19,057,095.00**