



www.its.dot.gov



iStockphoto

Certification ensures a common operational framework for critical components.

Research Goals

- To work with industry to define certification needs and develop supporting test methods and tools.
- To develop a future plan that will make certification activities self-sustaining through fees for testing shaped by the organizations seeking those requirements.

Research Outcomes

The results of this program are intended to deliver:

- Nationwide interoperability of system components.
- Reduction of inherent risks to consumer safety, security and privacy in the event of a whole or partial system breakdown.
- Establishment of an oversight structure (governance plan) that will provide the processes and procedures for system access, as well as system enforcement.
- An open, well-defined process that allows manufacturers to know the system requirements necessary to provide trustworthy components.

Connected Vehicle Certification Program

INTRODUCTION

Connected Vehicle Certification is a key research program of the Intelligent Transportation Systems Joint Program Office (ITS JPO), a program office within the U.S. Department of Transportation's (U.S. DOT) Research and Innovative Technology Administration (RITA).

Certification is the process of ensuring that system components, manufactured according to program requirements, perform as intended. Certification will ensure that users can trust that the components will work within the system.

VISION

The vision for the U.S. DOT Connected Vehicle Certification research program is to work in close cooperation with public and private partners to establish appropriate certification requirements for equipment.

RESEARCH PLAN

The ITS connected vehicle program deployment strategy will address the inherent risks to consumer safety, security, and privacy associated with a system breakdown. The system will have national interoperability so national standards and criteria for certification of individual products that have access to the system, system processes, and operational procedures need to be established. Since this is a new high-risk industry without an established consumer base, ITS JPO will work with industry to develop certification processes and procedures independently.

The ultimate form that a certifying entity would take, and the potential role of the federal government in oversight and enforcement of certification requirements is yet to be determined. Those two questions will be investigated as part of both the technical research program as well as the Policy and Institutional Issues research program.

Certification research will primarily be focused on understanding the needs for device compliance, system security, and privacy requirements.

ITS JPO will conduct the following research activities in support of certification:

- **Policy Research Related to Certification**—A forum will be established for solving policy-related issues, such as determining what is to be certified; the entity that will be responsible for certification; and the parties that will need to obtain certification. This research is included within the Policy and Institutional Issues research program, and it is envisioned that federal, state, and local government stakeholders will provide input and direction in this area.



RESEARCH PLAN-Continued

- **Technical Requirements for Certification**—The level of components within a device, or which interfaces need to be certified will be defined. Additionally, how this certification is to be accomplished will be determined. It is envisioned that the responsibility for this area of work will be shared by government and industry. However, the government will have a primary role in funding development prior to the emergence of a consumer market for certified products. In that sense, the government will serve as an enabler and coordinator of this function.
- **Implementation Support and Oversight**—A third party entity will likely conduct implementation of the planned certification process. The implementation process will include development of test tools and methods. The federal government may have a role in assisting with start-up, and in overseeing operation and adherence to standards. This implies an ongoing operational role for the federal government beyond the scope of research.

The deployment strategy addresses inherent risks to consumer safety, security, and privacy.



U.S. DOT

Testing new equipment is crucial to the certification process.



iStockphoto

ITS Connected Vehicle Certification research is ready to work in close cooperation with public and private partners to establish appropriate certification requirements for equipment.



U.S. DOT

Certified consumer products are instrumental to a reliable system-wide interface.

To learn more about the connected vehicle certification program, contact:

Walton Fehr
Program Manager
Certification Program
ITS Joint Program Office
Research and Innovative Technology Administration
(202) 366-0278
walton.fehr@dot.gov

Cover Image iStockphoto



U.S. Department of Transportation
Research and Innovative Technology Administration

