

ITS STRATEGIC PLAN 2015–2019

ENTERPRISE DATA

ABOUT ENTERPRISE DATA

With increased connectivity among vehicles, organizations, systems, and people, unprecedented amounts of data are being generated. New methods to collect, transmit/transport, sort, store, share, aggregate, fuse, analyze, and apply these data will be needed for management and operations of transportation systems.



The U.S. Department of Transportation (USDOT) will not only continue its efforts in operational data capture from stationary sensors, mobile devices, and connected vehicles, but will expand its research activities to include the development of mechanisms for housing, sharing, analyzing, transporting, and applying those data for improved safety and mobility across all modes of travel. In addition, a focus on open data sources and access will reflect the current state of the field and a market trend toward consideration of open data code development and storage and access. The USDOT is in early discussions with large data management organizations, as well as other technology and data-intensive organizations, to explore the integration of open data concepts and approaches as appropriate in various intelligent transportation systems (ITS technology research efforts).

THE BENEFITS OF ENTERPRISE DATA

There are several potential benefits of enterprise data, including:

- Providing new revenue opportunities
- Monitoring performance and enabling more efficient responses
- Increasing efficiency of information sharing
- Assuring the public that the privacy of data will be protected
- Improving quality (accuracy and timeliness) of data
- Stimulating innovation in new applications by enabling research
- Efficiently managing large datasets.

ITS Strategic Plan Program Areas:

- Connected Vehicles
- Automated Vehicles
- Emerging Capabilities
- Enterprise Data
- Interoperability
- Accelerating Deployment



View the ITS Strategic Plan at:
www.its.dot.gov/strategicplan



U.S. Department of Transportation



RESEARCH ACTIVITIES

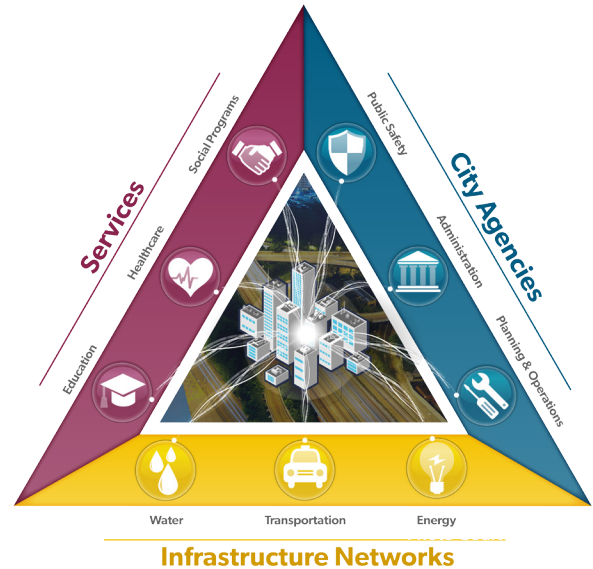
Enterprise data management initiatives focus on enabling effective data capture from ITS-enabled technologies, including connected vehicles (passenger, transit, and commercial vehicles), mobile devices, and infrastructure, in ways that protect the privacy of users.

A key part of the Enterprise Data research plan is connected cities. A connected city is a system of interconnected systems that communicate with and leverage each other to provide synergistic benefits. Some of things that differentiate a connected city from a traditional city include:

- Connected cities use collective “intelligent infrastructure” to sense what’s around them and/or their own status to provide rich situational awareness.
- Connected cities use new analytical processes.
- Connected cities engage the connected citizen, allowing and encouraging fully informed personal mobility and other choices.
- Connected cities use solutions across all transportation modes, including transit, bicycle, electric vehicle, and shared mobility services.

Our research plan through 2019 focuses on managing and providing transportation big data for these new paradigms of data-driven operations. We will fund projects to:

- Develop, adapt, and provide data visualization techniques that will facilitate the use of big data for research
- Develop traffic analysis and management techniques that take advantage of crowd-sourced data from thousands of connected travelers using social media
- Coordinate the operation of mobile devices carried by travelers who are passengers on transit vehicles, which are themselves generating connected vehicle messages
- Develop techniques, such as dynamic interrogative data capture, that will reduce the amount of data that needs to be saved depending on the situation.



LOOKING AHEAD: What’s Next for Enterprise Data?

The USDOT will continue its efforts in operational data capture from stationary sensors, mobile devices, and connected vehicles, and also expand its research activities involving the development of mechanisms for housing, sharing, analyzing, transporting, and applying those data for improved safety and mobility across all modes of travel.

Large data sets are needed as the basis for new applications to support mobility, safety, and greater efficiency of transportation assets. The availability of enterprise data is crucial for continued innovation.

ABOUT THE ITS STRATEGIC PLAN

The USDOT has long been a leader and strong supporter of research, development, adoption, and deployment of ITS around the nation.

[Learn more about the ITS Strategic Plan 2015-2019.](#)

For questions about the USDOT’s Enterprise Data program, contact:

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