U.S. Department of Transportation

INTELLIGENT TRANSPORTATION SYSTEMS JOINT PROGRAM OFFICE (ITS JPO) -- DATA PROGRAM UPDATE

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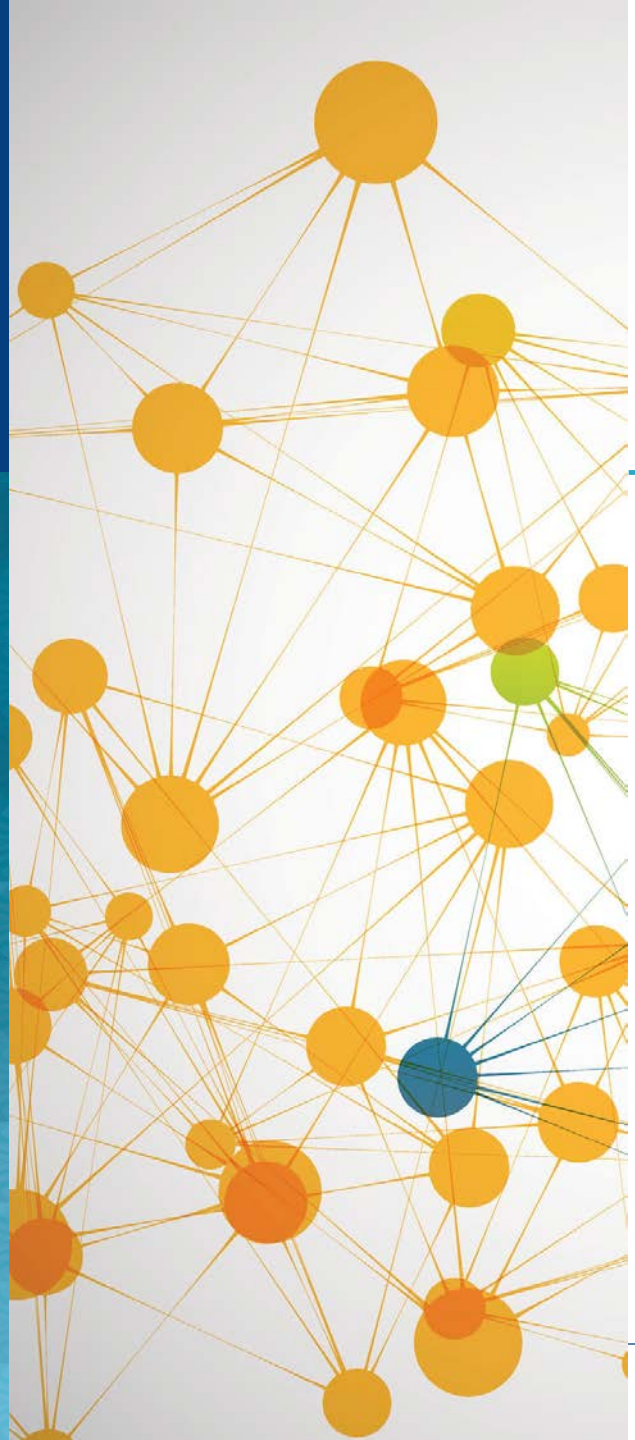
ITS ADVISORY COMMITTEE MEETING

JULY 19, 2017

NEW TECHNOLOGIES ARE INCREASINGLY:

- Data-intensive
- Internet-connected
- Developed iteratively
- Developed collaboratively
- Fundamentally changing consumer/citizen expectations

In this paradigm, data is available on-demand for authorized users; new capabilities come faster, at lower cost; and services interconnect and interoperate dynamically via web services.



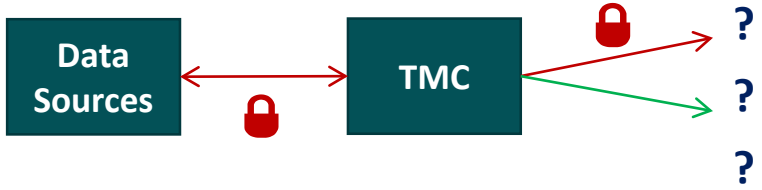
A FUNDAMENTAL PARADIGM SHIFT

- It’s more than “more data” – it’s a fundamental paradigm shift in information technology, design methodologies, and business models
- The transportation ecosystem are not “digital natives” and it’s a big change
- How do deployers get ready for this future while meeting near-term needs?

USE CASE:
A TALE OF TWO CITIES (OR STATES)

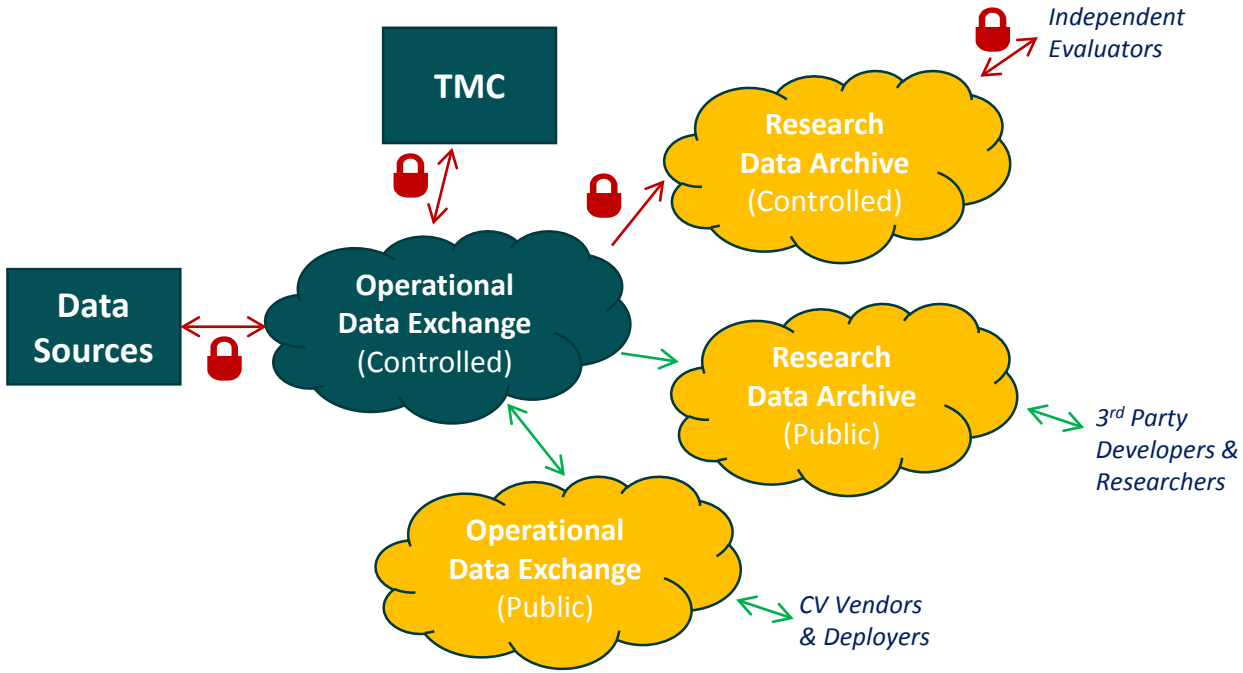
Most ITS Projects:

Limited data fluidity and flexibility limit the art of the possible



Wyoming CV Pilot:

Programmatic privacy protection and data fluidity enable rapid innovation, now and in the future



ABOUT THE ITS JPO DATA PROGRAM

The ITS JPO Data Program is a multimodal effort to enhance how data is managed and used throughout the transportation ecosystem to support the next generation of ITS technologies.

We aim to establish a foundation for agility, data sharing, and privacy protection in the future transportation system – including connected and automated vehicles and smart communities – to maximize the societal benefits of these technologies.

https://www.its.dot.gov/factsheets/pdf/FactSheet_EnterpriseData.pdf

ITS JPO DATA PROGRAM VISION

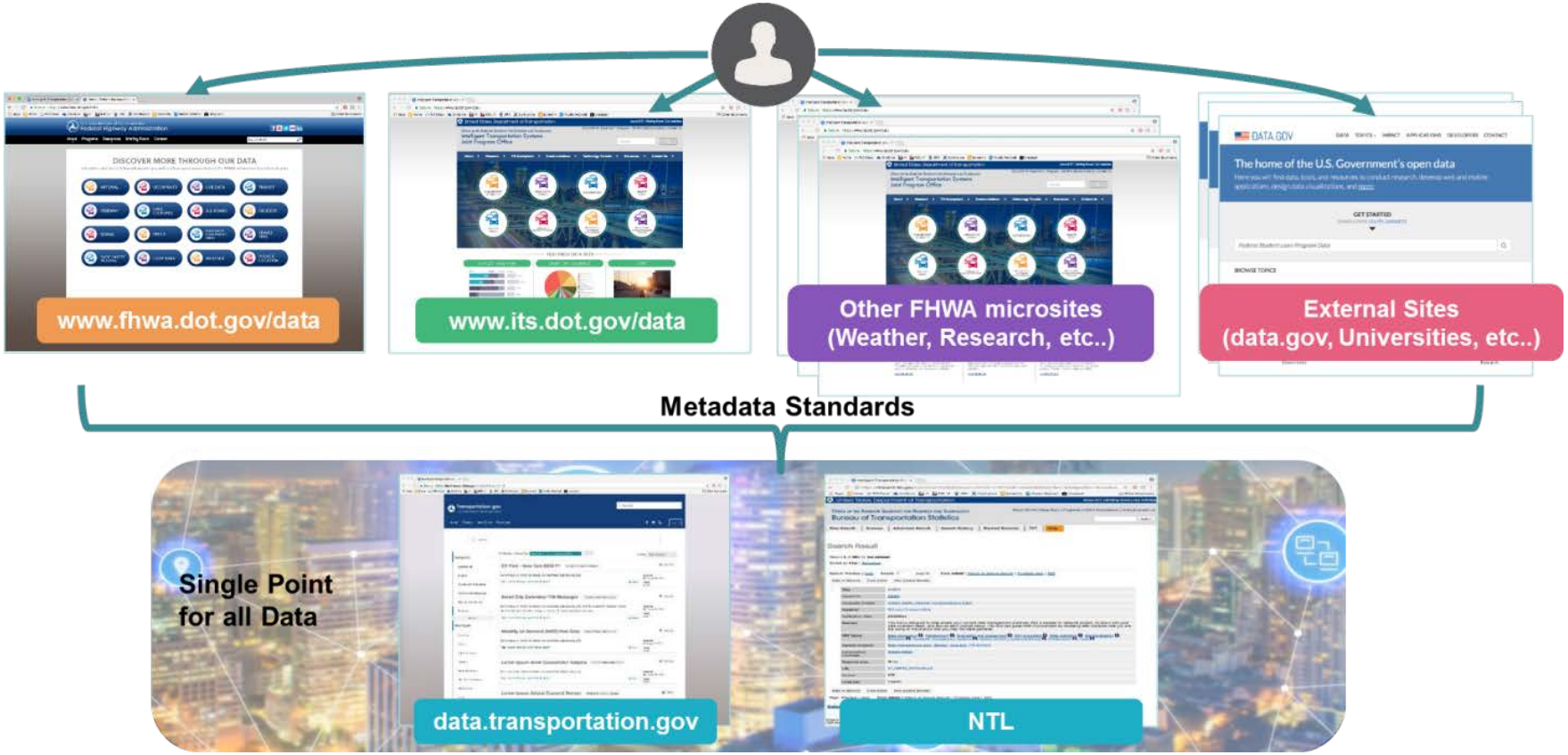
Deployers can access low cost, scalable, and interoperable data management tools – and collaboratively test and deploy them.

The transportation system protects the privacy of users while enabling data fluidity to address local, regional, and national needs – now and in the future.

Researchers and deployers have the training and tools they need to adopt modern IT methodologies and tools, collaborate, and accelerate the pace of innovation.

ITS JPO DATA PROGRAM TRACKS

ENHANCE THIRD-PARTY ACCESS TO DATA



Notional implementation of “no wrong door” approach to data discovery described in the draft *ITS JPO Research Data Access and Retention Plan*

SUPPORT DEPLOYERS W/ PRODUCTS & SERVICES

In the context of ITS, an Operational Data Environment is a real-time data acquisition and distribution software system that processes and routes data from Connected-X devices –including connected vehicles (CV), personal mobile devices, and infrastructure components and sensors –to subscribing applications to support the operation, maintenance, and use of the transportation system, as well as related research and development efforts.

Release Notes

Sprint 11

- (ODE-77 Subtask) C

Sprint 10

- ODE-259 Interface
- ODE-268 Fixed Mes

Sprint 9

- ODE-227 Probe Data Management (PDM) - Outbound

US Department of Transportation Joint Program office (JPO) Operational Data Environment (ODE)

1,475 commits | **12** branches | **0** releases | **7** contributors | Apache-2.0

Branch: **develop** | New pull request | Find file | Clone or download

tonychen091 committed on **GitHub** Updating formatting — Latest commit 3e94621 3 days ago

.settings	Moved to top so the parent pom is at the root of the project.	8 months ago
data	ODE-400 tim post jsonify, swagger update, new test rsu files	12 days ago
docker	Update README.md	2 months ago
docs	removing link	4 days ago
images	Updated the readme for the PPM module running with the ODE	2 months ago
jpo-ode-common	Merge pull request #131 from hmusavi/ode_data_type_ToJsonConverter	11 days ago
jpo-ode-consumer-example	changing to real groupid name	4 months ago

https://github.com/usdot-jpo-ode/jpo-ode

ENGAGE, COMMUNICATE, & BUILD CAPACITY

INTELLIGENT TRANSPORTATION SYSTEMS (ITS) DATA

As our transportation system becomes more technologically advanced, it is generating unprecedented amounts of data – and the data generated will continue to grow in size and complexity as vehicles and travelers become increasingly connected to each other and physical and digital infrastructure. Increasing automation will further increase data production and demand. ITS data holds great potential to improve the safety, mobility, and accessibility of our transportation system and drive economic opportunities. In fact, according to KPMG's 2017 *Global Automotive Executive Survey*, in the future, the digital ecosystem will generate higher revenues in the automotive value chain than the car itself.[1]

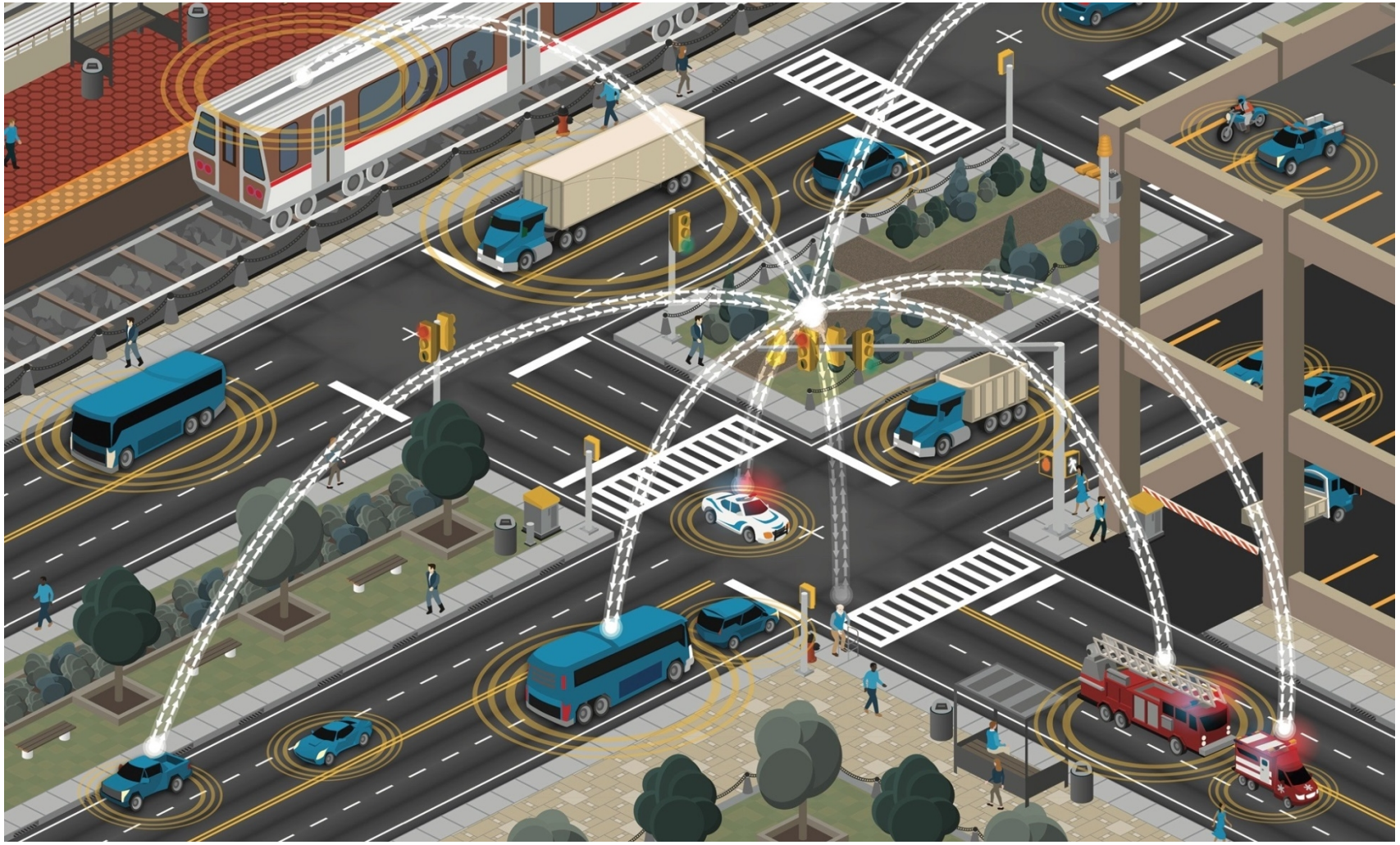
Program Vision and Objectives:

The ITS JPO Data Program is a multimodal effort to enhance how data is managed and used throughout the transportation ecosystem to support the next generation of ITS technologies.

We aim to establish a foundation for agile data sharing and privacy protection in the future transportation system, including

https://www.its.dot.gov/factsheets/pdf/FactSheet_EnterpriseData.pdf
https://www.its.dot.gov/press/2017/data_sharing.htm

DEVELOP STRATEGY FOR NATIONAL ITS PRIORITIES



QUESTIONS?

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