



# Intelligent Transportation System Joint Program Office (ITS JPO)

## ITS Public Research Data Update

Ariel Gold, Data Program Manager, USDOT

James O'Hara, ITS Analyst, Noblis



# AUDIENCE



ITS Researchers



ITS Deployers



State & Local DOTs



Data Providers



Private Organizations



Application Developers



Others Interested in  
ITS Data

# AGENDA



ITS JPO Data Access &  
Retention Program Updates



ITS Public Data Hub Demo



Related ITS JPO Data  
Program Updates



Q&A

# OUTCOME

## Participants will have learned:



How to find and use  
Wyoming CV Pilot and other  
data via the ITS Public Data  
Hub



General timeline for future  
ITS research data sets



Updated ITS JPO data  
access and retention  
policies

# COORDINATING THE ITS ENVIRONMENT

## Intelligent Transportation Systems Joint Program Office



Automation

Information  
Technology

SCMS: Security Credential  
Management System

Spectrum

Knowledge  
Transfer

Standards &  
Architecture

Smart  
Infrastructure

Capacity  
Building

Big  
Data

Evaluation

Certification

Research  
Grants



# ITS JPO DATA PROGRAM MISSION

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The US Department of ITS Transportation Joint Program Office (JPO) is committed to providing timely access to public research data to support third-party research, evaluation, and application development.

ITS JPO Data Program Fact Sheet:

[https://www.its.dot.gov/factsheets/pdf/FactSheet\\_EnterpriseData.pdf](https://www.its.dot.gov/factsheets/pdf/FactSheet_EnterpriseData.pdf)

# ACCESS NEW DATA AND MORE TO COME



**NEAR REAL-TIME  
WYOMING CV PILOT TEST  
DATA NOW AVAILABLE**

**DATA FROM OTHER CV PILOTS AND SMART  
COLUMBUS COMING SOON**

**ACCESS 100+ DATASETS FROM OTHER PROJECTS**

# WYDOT CONNECTED VEHICLE PILOT DATA AVAILABLE

- ▲ Basic Safety Messages
- Traveler Information Messages

## View and download data streams from early deployers:

- FULL DATA SET: <https://github.com/usdot-its-jpo-data-portal/sandbox>
- SAMPLE: <https://data.transportation.gov/Automobiles/Wyoming-CV-Pilot-Basic-Safety-Message-One-Day-Samp/9k4m-a3jc>

Wyoming data is now streaming and available to the public.



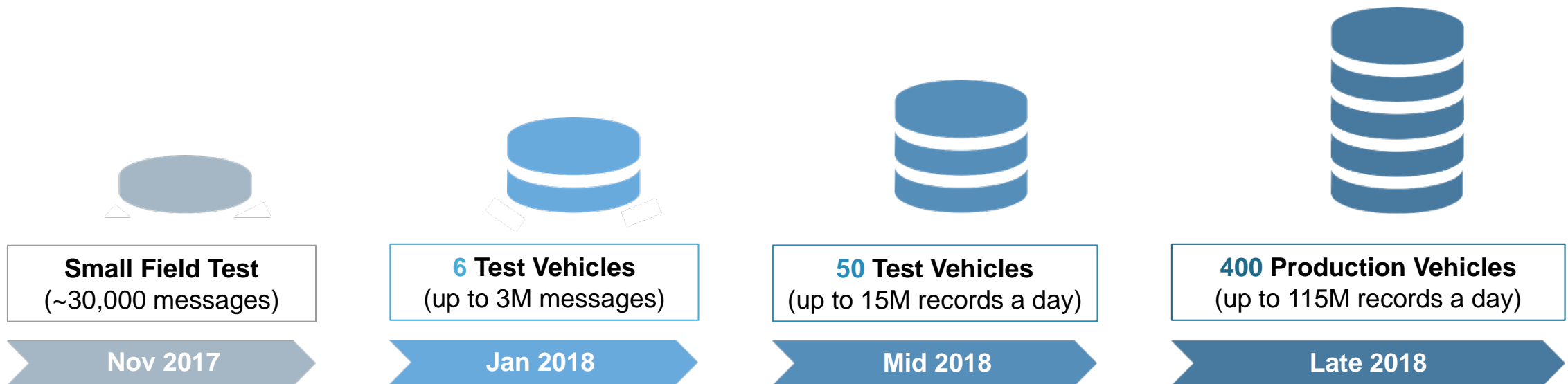
Explore the data at ITS Public Data Hub

[www.its.dot.gov/data](http://www.its.dot.gov/data)

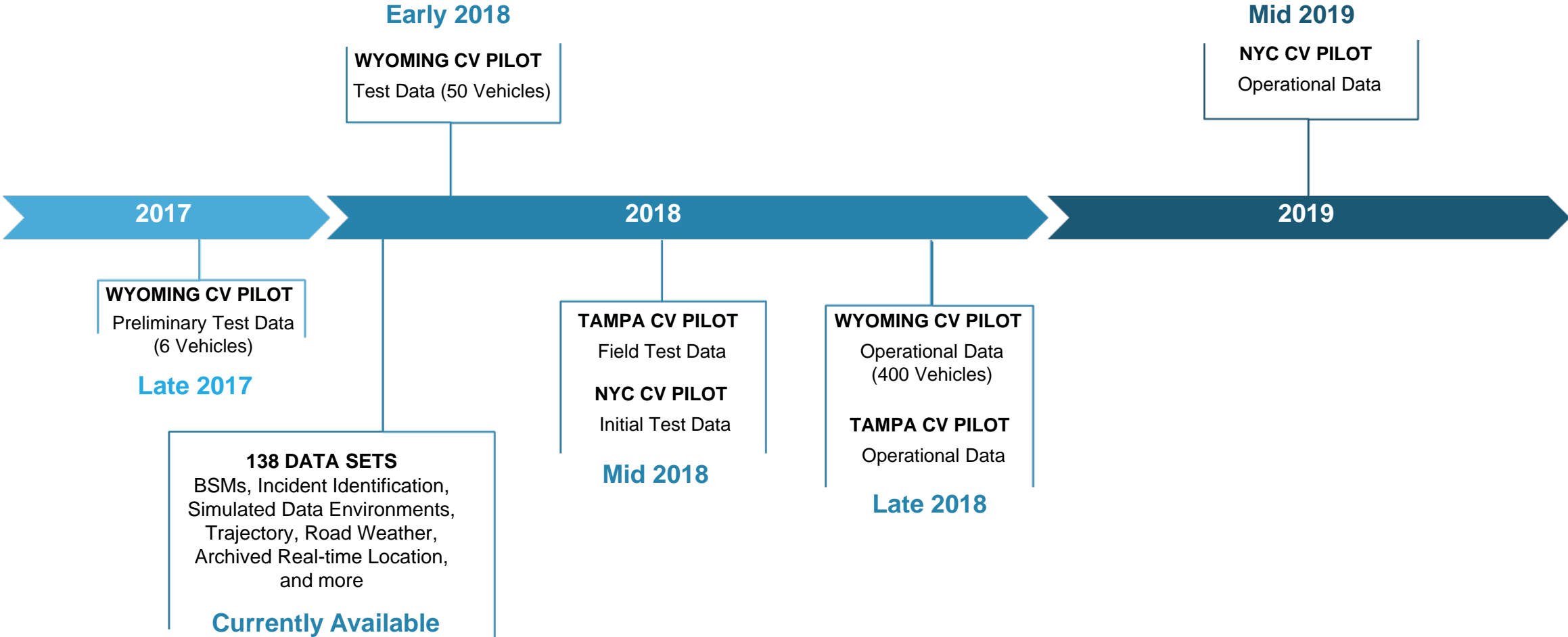


# WYOMING CV PILOT

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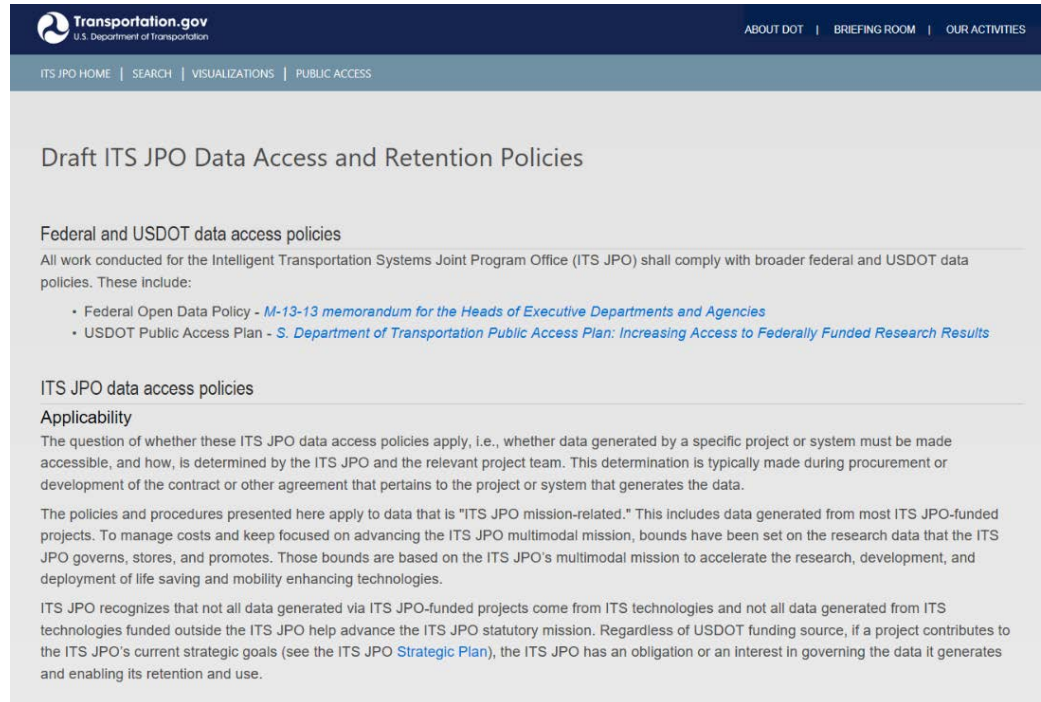


# MORE DATA COMING FROM CV PILOTS





# PUBLIC ACCESS POLICY



The screenshot shows the top navigation bar of the ITS JPO website with the Transportation.gov logo and links for ABOUT DOT, BRIEFING ROOM, and OUR ACTIVITIES. Below the navigation bar, there are links for ITS JPO HOME, SEARCH, VISUALIZATIONS, and PUBLIC ACCESS. The main content area is titled "Draft ITS JPO Data Access and Retention Policies". It includes a section for "Federal and USDOT data access policies" with a list of links to the Federal Open Data Policy and the USDOT Public Access Plan. Another section is titled "ITS JPO data access policies" with a sub-section for "Applicability" that explains the scope of the policies and the ITS JPO's mission.

[HTTPS://WWW.ITS.DOT.GOV/DATA/PUBLIC-ACCESS/](https://www.its.dot.gov/data/public-access/)

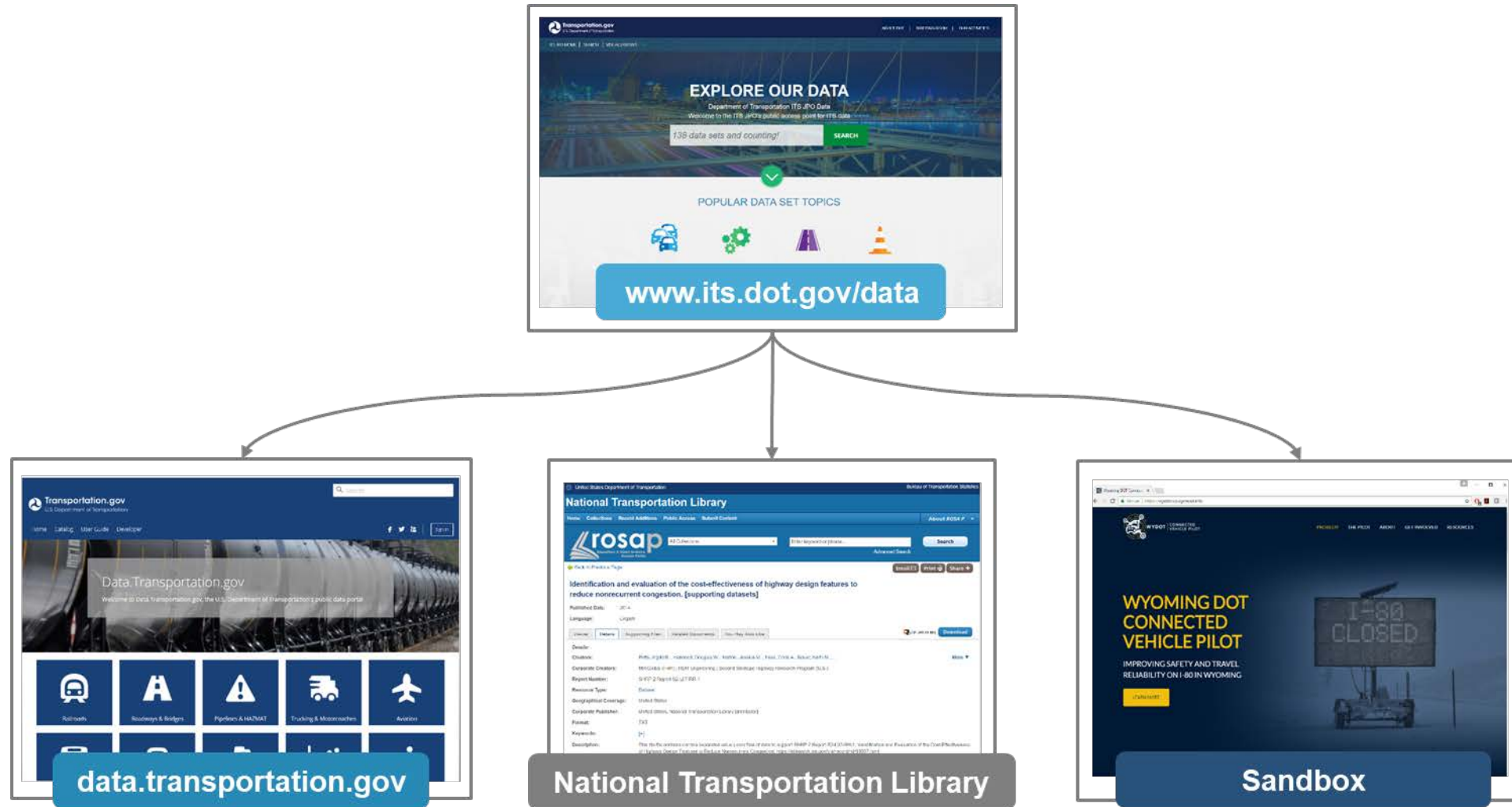
ITS JPO's Public Access Page provides information on:

- Applicability
- Data management plans
- Selecting a data repository
- Procedures for data submission

# PUBLIC RESEARCH DATA



# SINGLE ACCESS POINT FOR USDOT ITS DATA



# MORE DATA IS HERE AND COMING

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Each project is already (or will be) producing data like:

- Vehicle Automation Data
- Queue Warning Data
- Vehicle Platoon Data
- Travel Time Data
- Trajectory Data
- Signal Phase and Timing (SPaT)
- Infrastructure data
- Traditional ITS Sensor data
- Signal Systems Operation Data
- Basic Safety Messages
- Traveler Information Messages

# BASIC SAFETY MESSAGES

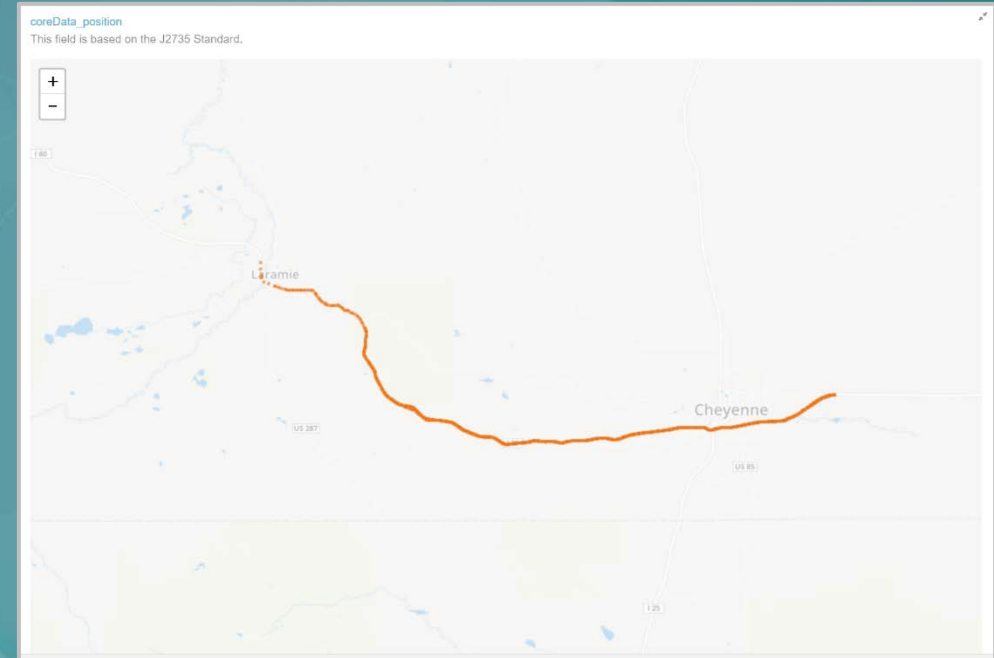
Core Elements: vehicle size, position, speed, heading acceleration, brake system status

Transmitted approximately 10x per second

Real-time and/or Near Real-Time

Example Uses:

- V2V Application Development
- V2I Application Development
- Traveler Information
- Safety Studies
- Performance Measures



## Access BSM Data Lens:

<https://data.transportation.gov/Automobiles/Wyoming-Connected-Vehicle-Pilot-Basic-Safety-Messa/hchs-a7s6>

# DEMO

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**WHAT IS NEXT?**

# SECURE DATA COMMONS

Access to sensitive transportation datasets:

- Secure
- Collaborative

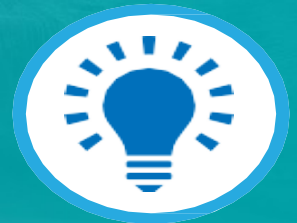
Contact us to learn how you can get involved!  
([data.itsjpo@dot.gov](mailto:data.itsjpo@dot.gov))



Collaborate



Share



Learn





# PRIVACY PROTECTION MODULE (PPM)

## A TOOL FOR STREAMING LOCATION DATA



A **standalone capability** that integrates with the ODE to handle multiple J2735 message types



An **application-specific** privacy protection tool to address streaming data



**Geofencing filter:** identify and isolate a known, irregular area  
Locations are classified as outside or inside the fence in real time



All code and documentation is open source code:  
<https://github.com/usdot-jpo-ode>



# WYOMING DATA ARCHITECTURE

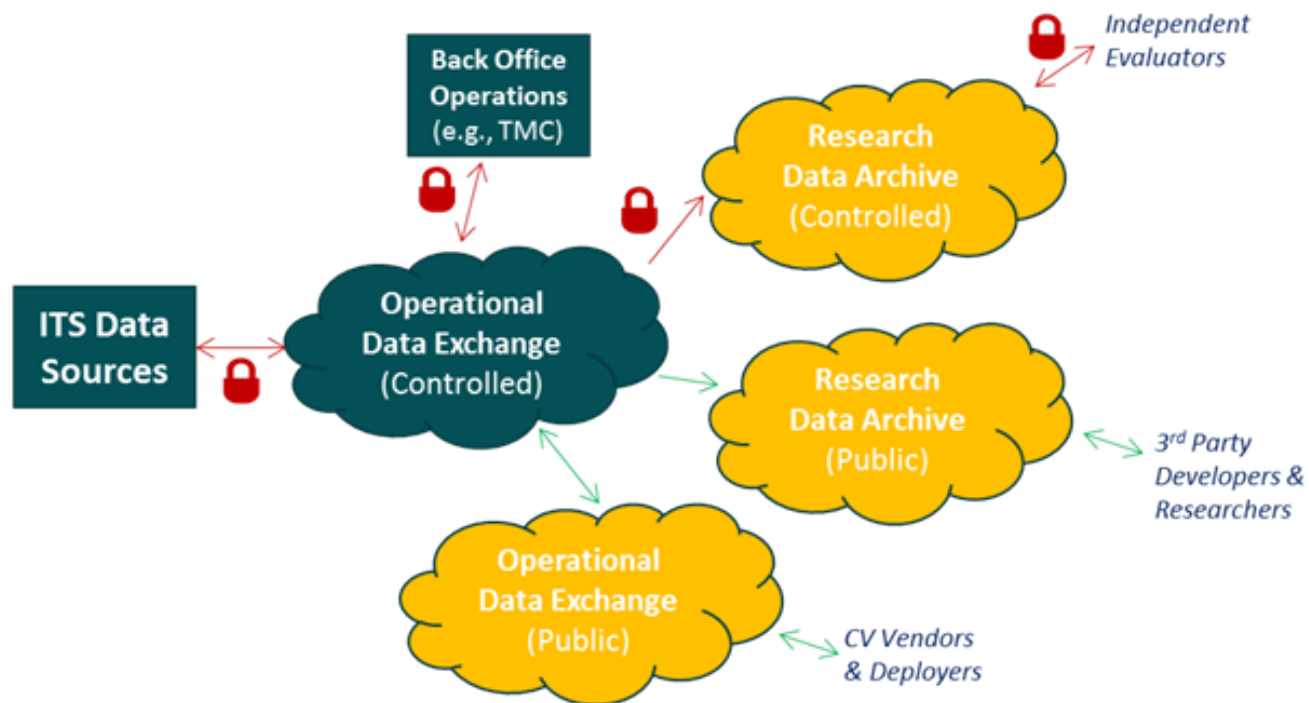
## Most Transportation Projects:

Limited data fluidity and flexibility block innovation



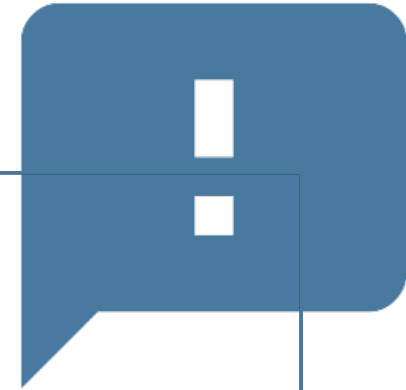
## Wyoming Connected Vehicle Pilot:





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



# WE'RE LOOKING FOR YOUR FEEDBACK

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-  WYDOT Data Structure
-  User Experience of System
-  User Experience Working with Data
-  New Features to Display & Access Data

# FOR MORE INFORMATION

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## EXPLORE ITS DATA

<https://www.its.dot.gov/data/>

SEARCH

## ARIEL GOLD

ITS Joint Program Office, USDOT

(202) 366-4374

[Ariel.Gold@dot.gov](mailto:Ariel.Gold@dot.gov)

## ITS PUBLIC DATA HUB

[data.itsjpo@dot.gov](mailto:data.itsjpo@dot.gov)