Expanding the Reach of Connected Vehicle Data Using the Connected Vehicle Data Framework

WHAT IS THE CONNECTED VEHICLE DATA FRAMEWORK?

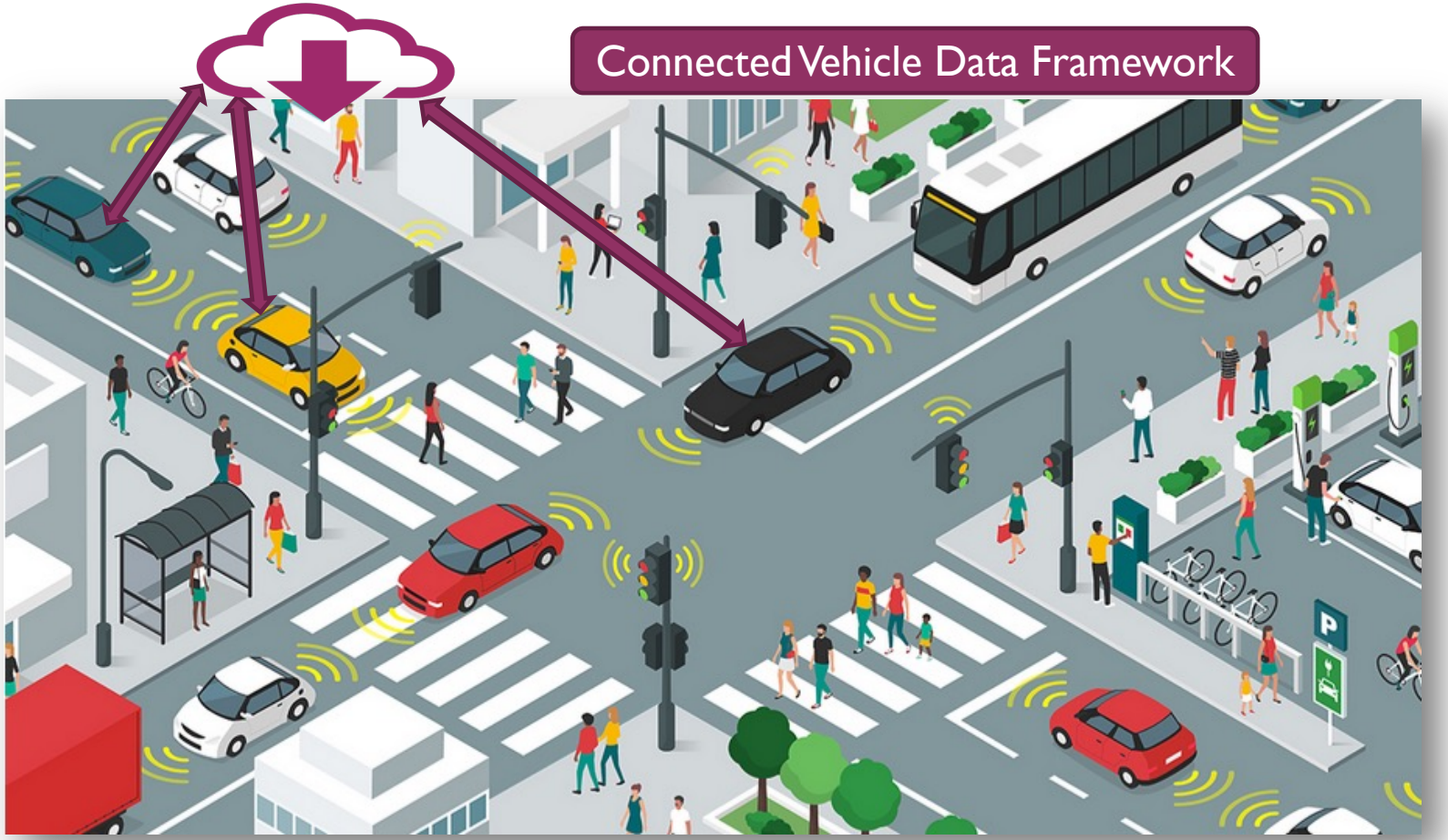
- Initiated by the Connected Vehicle Pooled Fund Study (CV PFS)
- Provides an interface for transmission of “connected vehicle” data
  - Data can originate from any format
  - Defines a common format/interface for accessing and providing data

CONNECTED VEHICLE AND INFRASTRUCTURE

In an ideal world, all vehicles would be connected to each other and the infrastructure

Information would flow to/from each connected "thing"

PROVIDES ALTERNATIVE COMMUNICATION METHOD

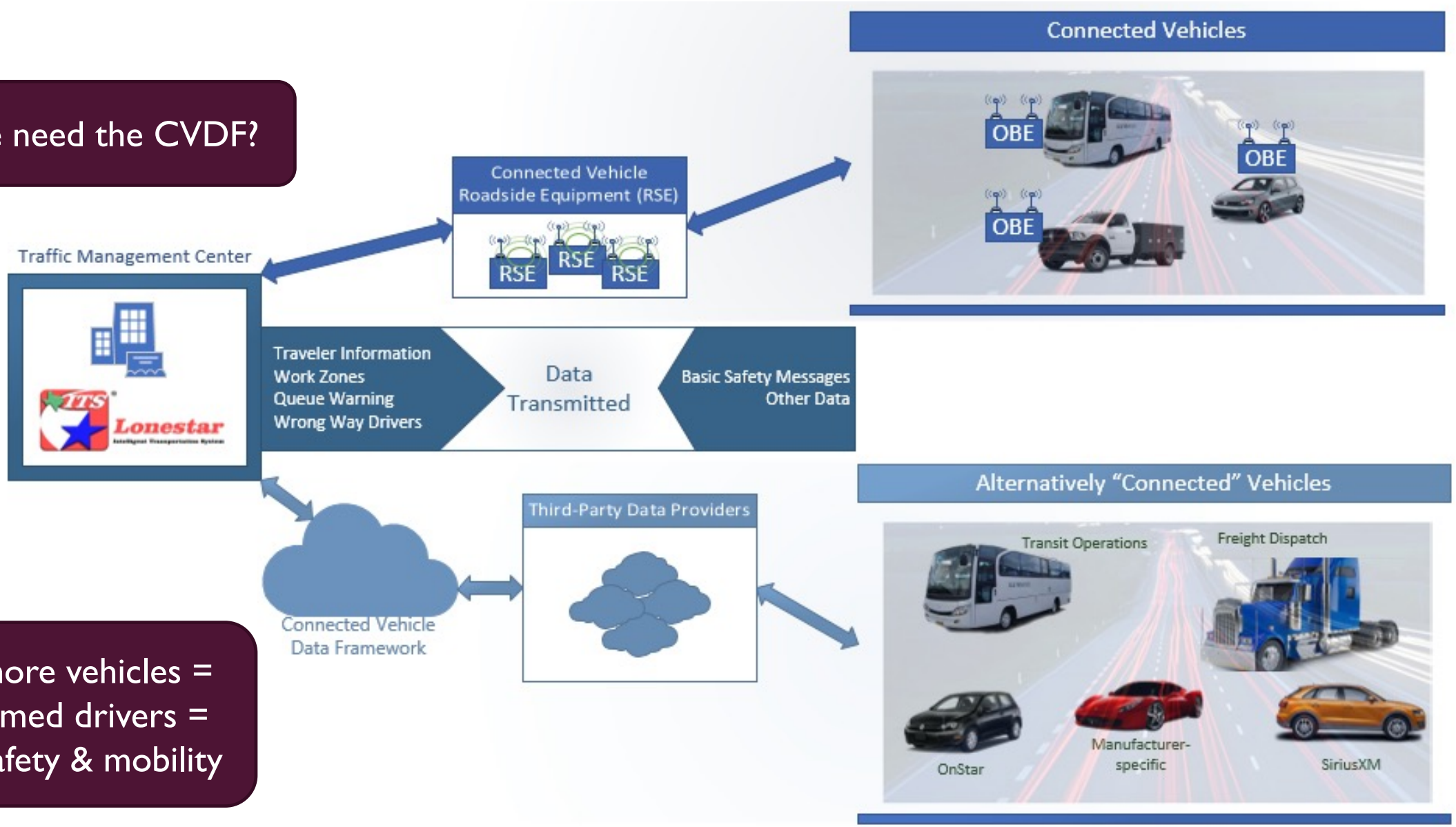


Since we ***do not*** live in an ideal world, we need to provide alternative communication methods

Allows us to provide data to:

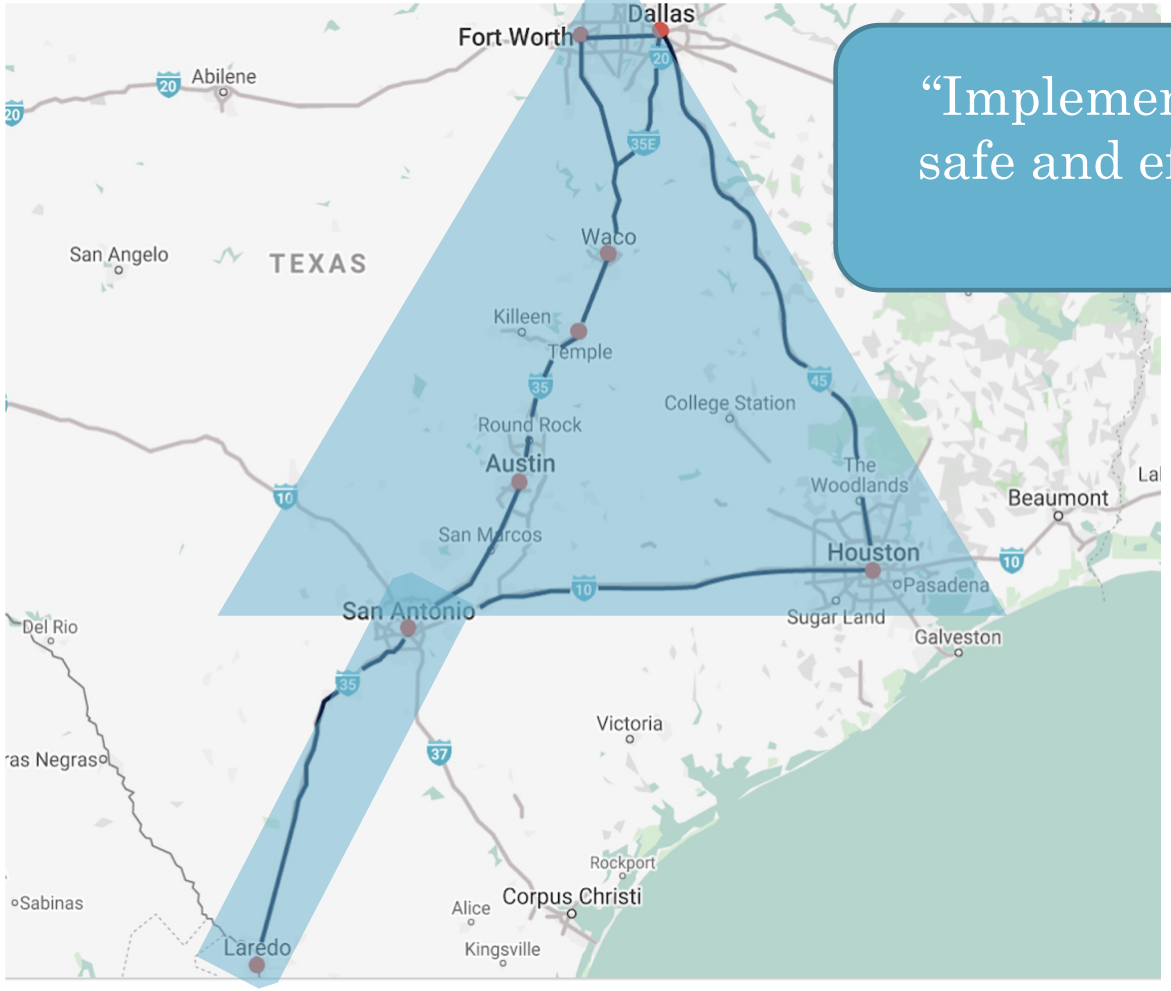
- Vehicle manufacturers
- Transit
- Fleets
- Any proprietary systems

Why do we need the CVDF?



Including more vehicles = more informed drivers = improved safety & mobility

WHERE CAN TXDOT USE THE CVDF?
TEXAS CONNECTED FREIGHT CORRIDORS (TCFC) PROJECT

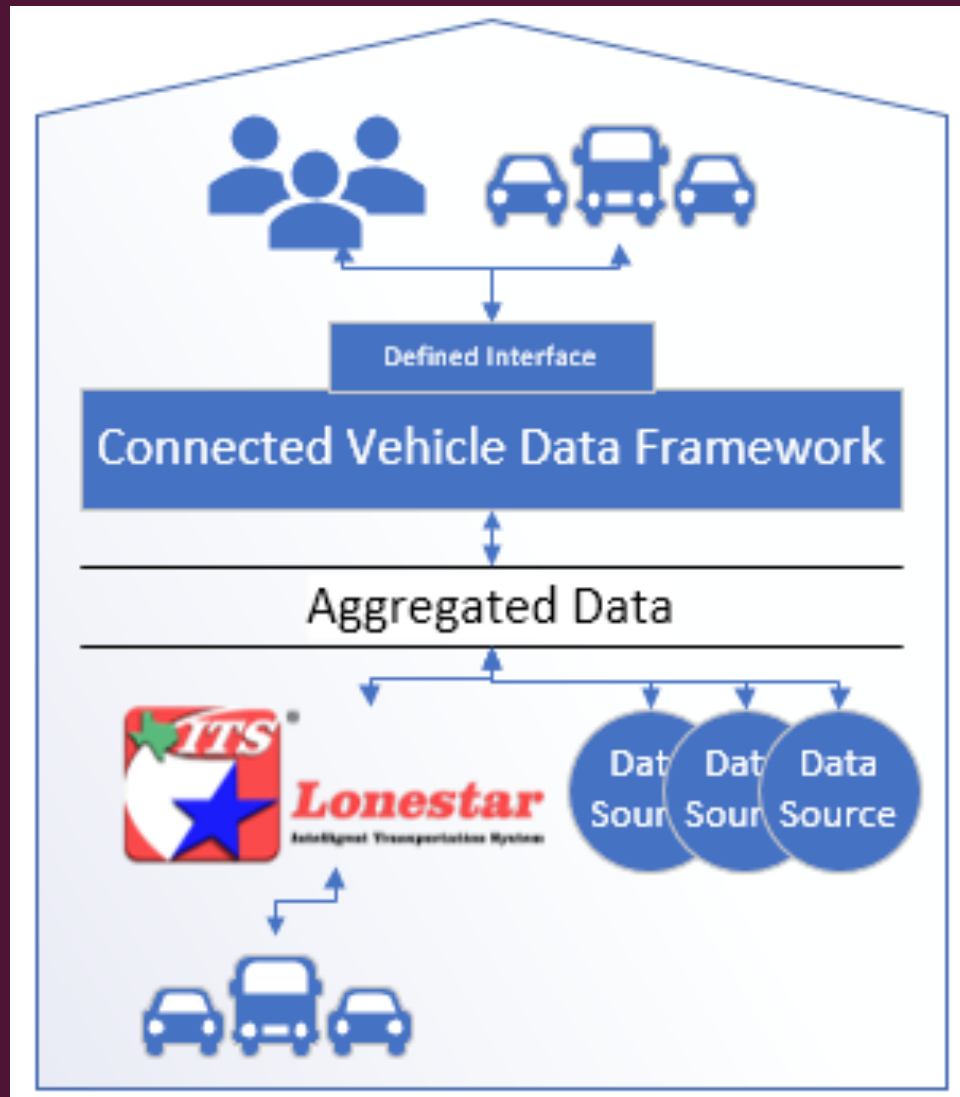


"Implementing connected vehicle technology to enable safe and efficient goods movement through key freight corridors in the Texas Triangle."

- Deploying connected vehicle equipment
- Limited number of vehicles and roadside devices
- How can we expand the scope?

WHAT DATA IS TRANSMITTED?

- Initial implementation will only include messaging ***to*** vehicles
  - General traveler information
  - Queue warnings
  - Work zones
  - Wrong way driver
- Future implementations to include
  - Messages ***from*** vehicles, including basic safety messages
  - Other types of messages ***to*** vehicles
  - Enhanced security



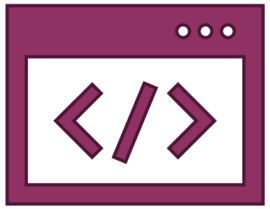
HOW IS THE DATA COLLECTED AND MANAGED?

- Data aggregated from various data sources
  - Lonestar™
    - Connected vehicle data
    - Events and incidents
    - Traveler messages
  - Other sources such as GIS, National Weather Service
- Data is collated and made available in a defined interface

WHO WILL USE THE CVDF?

- Texas Connected Freight Corridor project stakeholders
  - Trucks moving freight along the highways
  - Typically, already have a communication "terminal" in vehicle
  - Don't want to overload drivers with another device
- Freight telematics systems
  - Provide updates to various companies
  - Can include this information to their customers
- Allows information to reach a ***much*** larger number of vehicles!

CVDF SUMMARY



Encourages use of standards-based, security-focused interfaces

Helps the TCFC project reach more drivers/vehicles

Broadcasting messages to improve safety and mobility across the state

QUESTIONS?

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