Fuel Transportation in the digital age
Why PIDX is sponsoring work on standards for hauler, vehicle and driver records
The connected fuel truck is already here...

- Communications with dispatch
- GPS tracking
- DOT Regulatory compliance
- Fleet productivity monitoring
- Driver safety behavior
- Driver navigation assistance
- Tractor Analytics
- Safe fill practices
... and it will get even better...

Cargo manifest

Safe & Accurate Discharge

Electronic transaction capture

Product Reconciliation

360° Visibility

Automated Loading & Delivery
... with digital twins in the fuel transportation sector.

Fuel Tanker Data – Blackout + Enablers = Visibility
Our consumer experiences shape our business expectations.

- Goods and services are available instantly
- Information is accessible everywhere
- Account set ups are easy
Now contrast this.

- Haulers must certify their company, their drivers and equipment for each terminal.
- There is little or no integration with fuel terminal systems today. Interactions are manual.
- There is no agreed structure for record keeping. Sharing of driver, vehicle and hauler status is difficult across stakeholders.
- There is duplication of effort for terminal operators in keeping driver and vehicle records at the local terminal level – within a network and across operators.
- Lack of standards is a barrier to technical innovation eg. Enhancing security access at the terminal, automating terminal interfaces.
Standards for the exchange of hauler, driver and vehicle records

Purpose:
- Establish standards for the exchange of fuel haulers, vehicles and driver records between stakeholders, in support of technical innovation.

Specifications will include the following:
- data elements for haulers, vehicles and drivers
- data structures and relations
- Technology for the transfer of information
- Data security requirements
- Regulatory requirements to be met
Scope of work

In scope (I is)
• Hauler, vehicle and driver data
  • driver name, certification expiry, biometrics, etc
  • trailer tank inspection date, certificates and licenses, etc
  • hauler insurance records, SCAC code, etc
• Data structures and relations - schemas, etc
• Technologies for accessing and for repository eg. blockchain, API, etc
• Data security requirements
• Regulatory requirements
  • data privacy, antitrust, GDPR, etc

Out of scope (I is not)
• Other terminal master data such as Vendor, product, maintenance, assets
• Vehicle safety standards
• Other related opportunities
  • Standards for driver training
  • Industry common training materials
  • Standards for driver and vehicle recertification
  • Tracking driver suspensions for unsafe practices
Project sponsors and participants

- scully
- dtn
- Magellan Midstream Partners, L.P.
- Valero
- ExxonMobil
- Transport4
- T4 Systems
Use cases: Standards for Hauler, driver and vehicle records

- Standardized language that aligns system development for the automation of driver, vehicle, and terminal information exchange.

- Single entry point for hauler/tanker authorization records and common distribution means between all terminal operators.

- Data record integration/synchronization between cloud based solutions and local instances of terminal automation systems within a terminal network.

- Metrics for dynamic cargo and other cargo meta data.
Benefits

Terminal operators
- Reduces duplication and simplifies record keeping at terminal network level
- Share information more easily in exchange agreements
- Respond faster to supply outages
- Form data alliances with other operators to recognize certifications
- Gain access to automation and integration services from vendors

Distributors, haulers and drivers
- Access information that can easily be consolidated for ease of administration
- Follow common standards to attach and communicate driver and vehicle documents
- Access to subscription services
- Access to driver self management solutions

Software developers and equipment firms
- Common structure for establishing driver and vehicle information services
- Guidelines for developing network integration capabilities across terminals
- Integration with other services like dispatch solutions, gate access, etc.
Questions?