

Fuel Transportation in the digital age

Why PIDX is sponsoring work on standards for hauler, vehicle and driver records

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New Product Development

 **scully**

The connected fuel truck is already here...



Communications with
dispatch.

Driver safety behavior

GPS tracking

Driver navigation
assistance

DOT Regulatory
compliance

Tractor Analytics

Fleet productivity
monitoring

Safe fill practices

... and it will get even better...

Cargo manifest

Product Reconciliation

Safe & Accurate
Discharge

360° Visibility

Electronic transaction
capture

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



NETFLIX



amazon



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:

- o data elements for haulers, vehicles and drivers
- o data structures and relations
- o Technology for the transfer of information
- o Data security requirements
- o Regulatory requirements to be met

Scope of work

In scope (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 - s
- Technologies for accessing and f blockchain, API, etc
- Data security requirements
- Regulatory requirements
 - data privacy, antitrust, GDPR

Out of scope (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



Use cases: Standards for Hauler, driver and vehicle records

A background image of a terminal at night. Several white trucks are parked in a lot, illuminated by warm yellow lights. A large white spherical tank is visible on the right side. The scene is dark, with the lights creating a strong contrast.

- 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.

An aerial photograph of a city skyline at dusk. The sky is a deep blue, and the city lights are beginning to glow. A semi-transparent blue banner with a white-to-blue gradient is overlaid across the top half of the image. The word "Questions?" is written in white, sans-serif font on the banner. The city below features numerous skyscrapers, including a prominent one with a glowing top, and a river or canal winding through the urban landscape.

Questions?