POWERED BY HAULHUB TECHNOLOGIES

www.e-dot.com www.haulhub.com

Advancing Work Zone Safety and Digital Construction through Real-Time Project Workflows

Zach Ernst - HaulHub Technologies

About Speaker

Zach Ernst

Manager of Government Solutions - Northeast

- Based outside of Boston, Massachusetts
- Partnered with statewide and municipal agencies across the Northeastern US in furthering their E-Construction efforts
- Background in Software Engineering, Digital Modeling and Information Technology
- Known for mediocre renditions of Tom Petty and Steve Miller songs

Solutions Expert

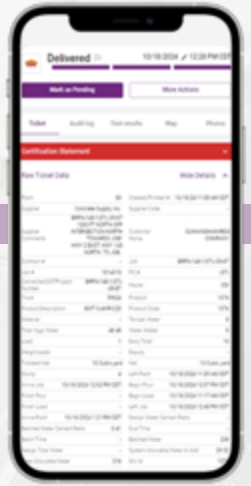
EDOT

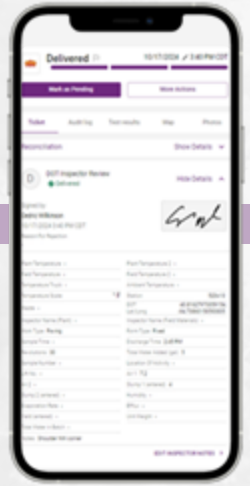
OUR STORY

Revolutionize transportation agency efficiency and safety through digital transformation.

Safety
Digital As-Builts
Interoperability

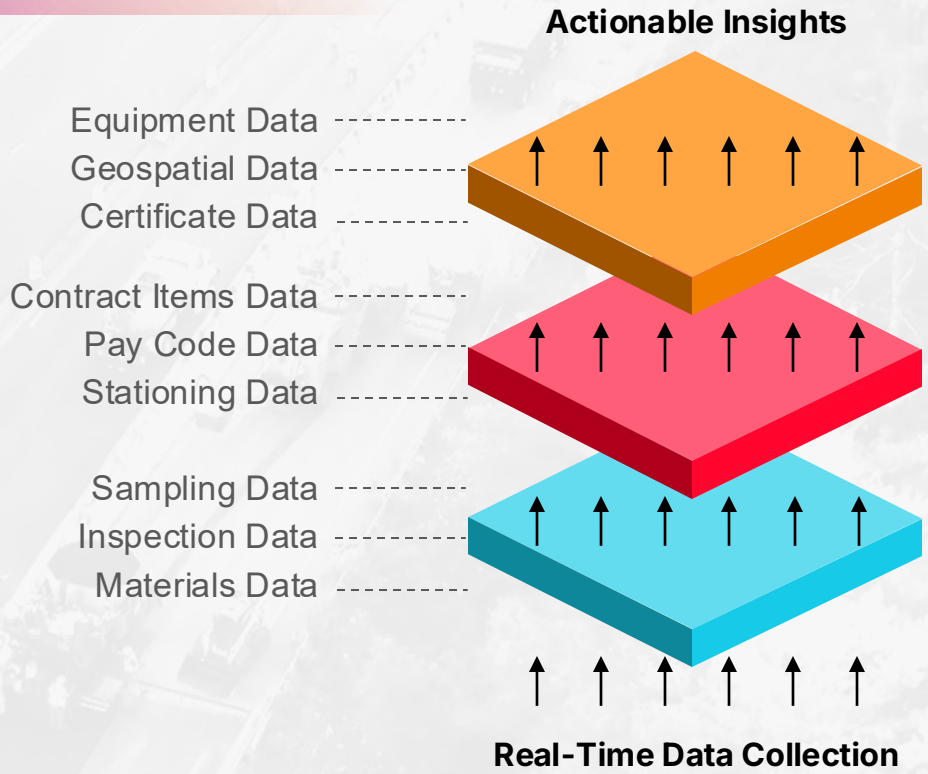
Our approach began with e-Ticketing, digitizing materials tickets, laying the groundwork for comprehensive, centralized aggregated data.





The Impact Of Centralized Data Points

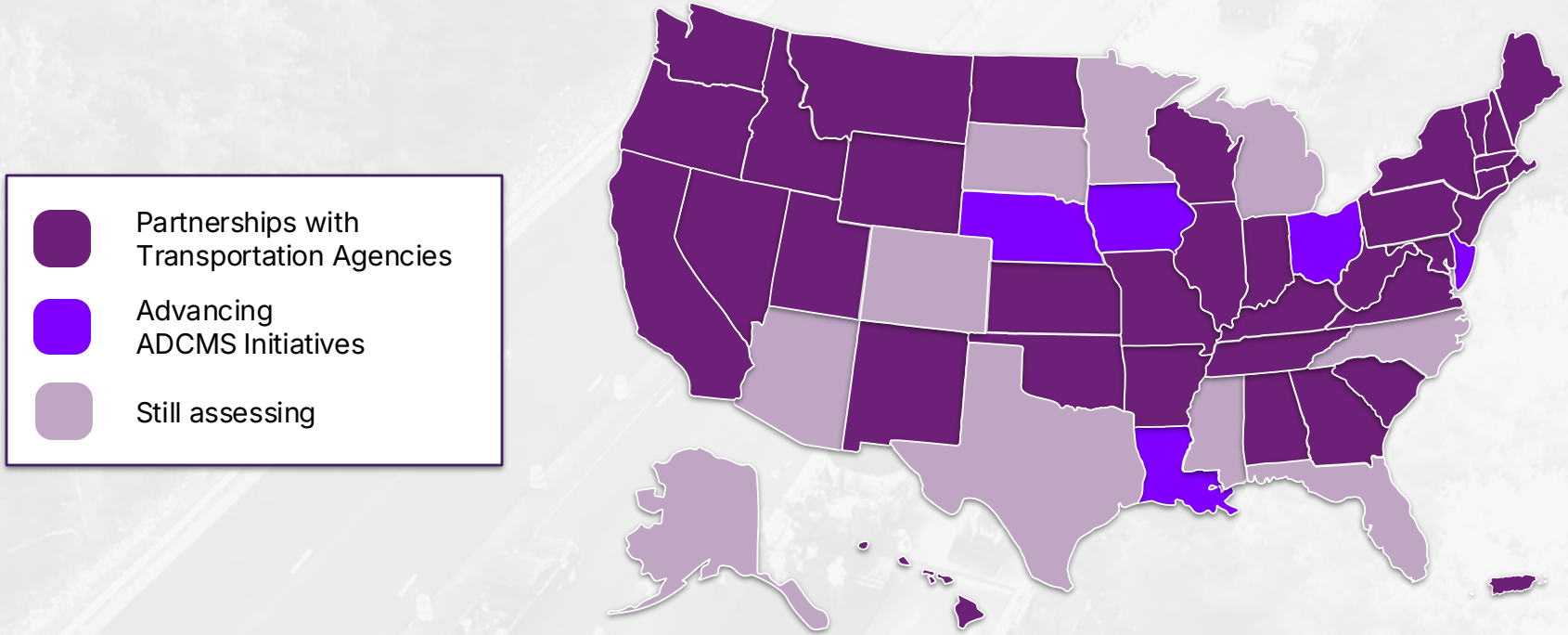
- Digitizes workflows, eliminating paper processes, reducing errors, and enhancing transparency and efficiency.
- Centralized, standardized data streamlines project oversight, compliance, and decision-making.
- Real-time integration into agency management systems improves efficiency while enabling AI-driven insights for smarter workflows and proactive construction insights.



** Current capabilities with continuous enhancements as new data sets become available.*

EDOT

The Results: Nationwide Adoption

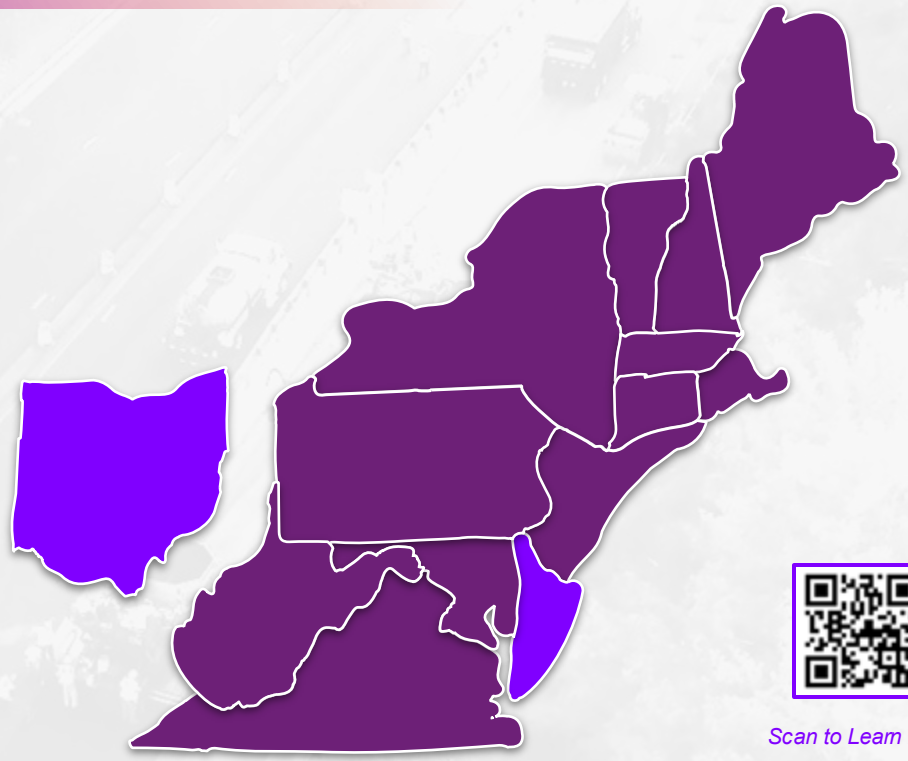


** As of 09/2025. Visit www.DOTRDY.com to learn more.*

North East USA Adoption

Partnerships with Transportation Agencies, construction material suppliers and OEMs.

Automated Work Zones with Connected Equipment in partnership with Transportation Agencies



Scan to Learn More

▲ *As of 09/2025. Visit www.DOTRDY.com to learn more.*

Agency Deployment Simplified

1

For Producers seeking a hassle-free managed solution

Your DOT has secured services to get your e-ticketing operations up and running at no cost to you. You control what data is shared with the DOT. SLA requirements are the responsibility of HaulHub.

2

For Producers seeking to internally manage integration

Producers will POST data to an API with an authorized user key. HaulHub will publish technical documentation for your use. SLA requirements are the responsibility of the supplier (5 min data transmission, track, trace, audit, service contact, and security assessment required).

3

For Suppliers with existing e-Ticketing solutions

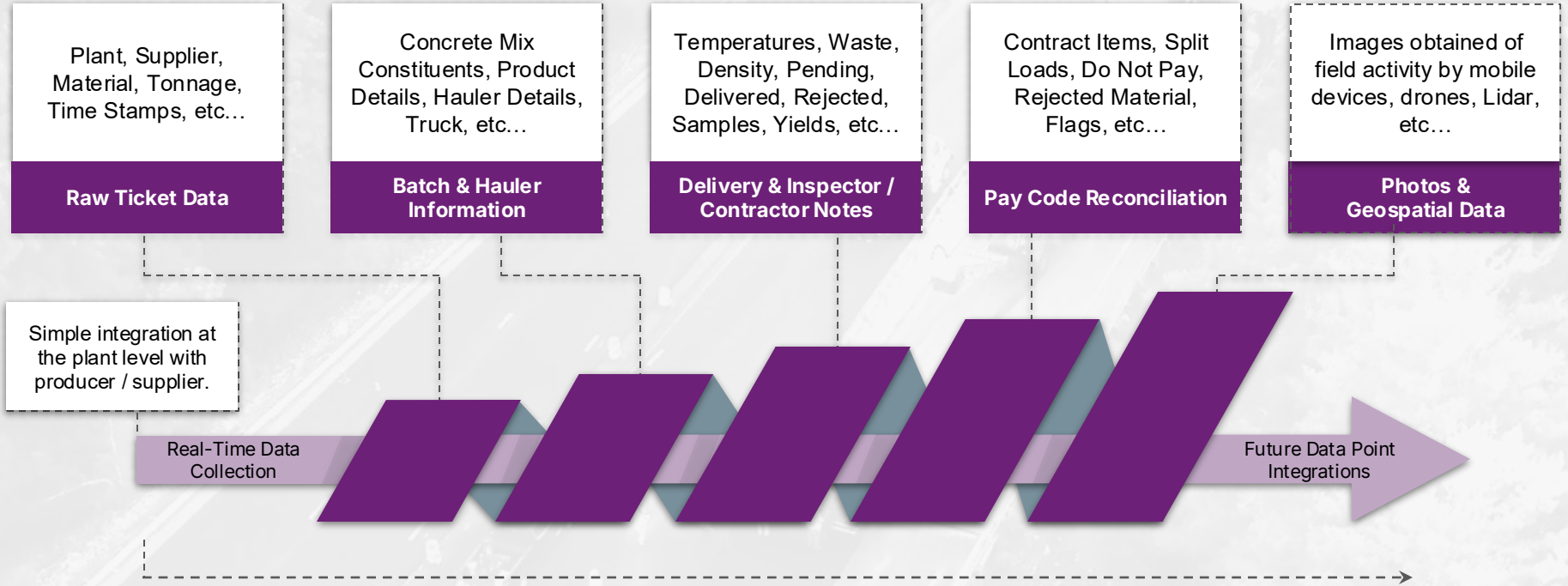
Your current e-ticketing vendor will POST data to an API similar to the one above. SLA requirements are the responsibility of the supplier or the third party e-Ticketing solution (5 min data transmission, track, trace, audit, service contact, and security assessment required)

LEVERAGING E-TICKETING FOR SMARTER JOB SITES

EDOT

Material Ticketing Data Collection

Current capabilities with continuous enhancements as new data sets become available.



Audit Log: Provides transparency and proof of validity for every event from creation at plant and beyond.

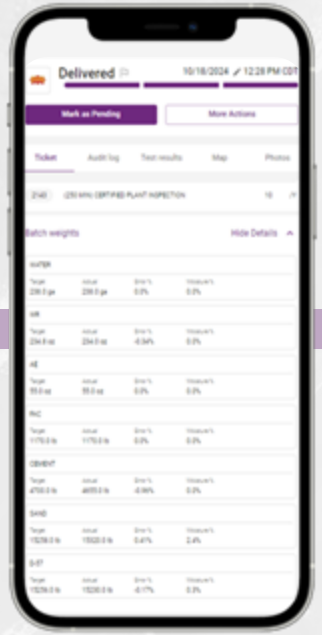
EDOT

Concrete Ticket Insights

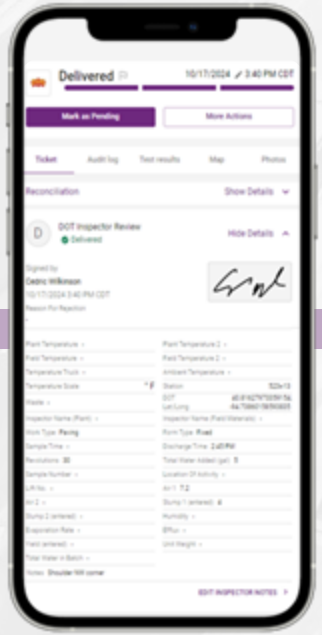
Digital Ticketing Data
Instantly accessible upon ticket generation at the plant.

Delivery Information

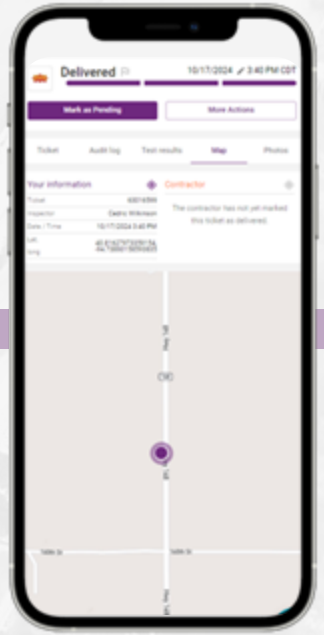
Batch Weights



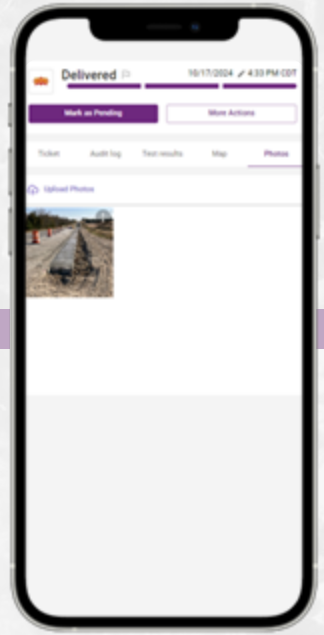
Inspector Notes



Delivery Location



Photos

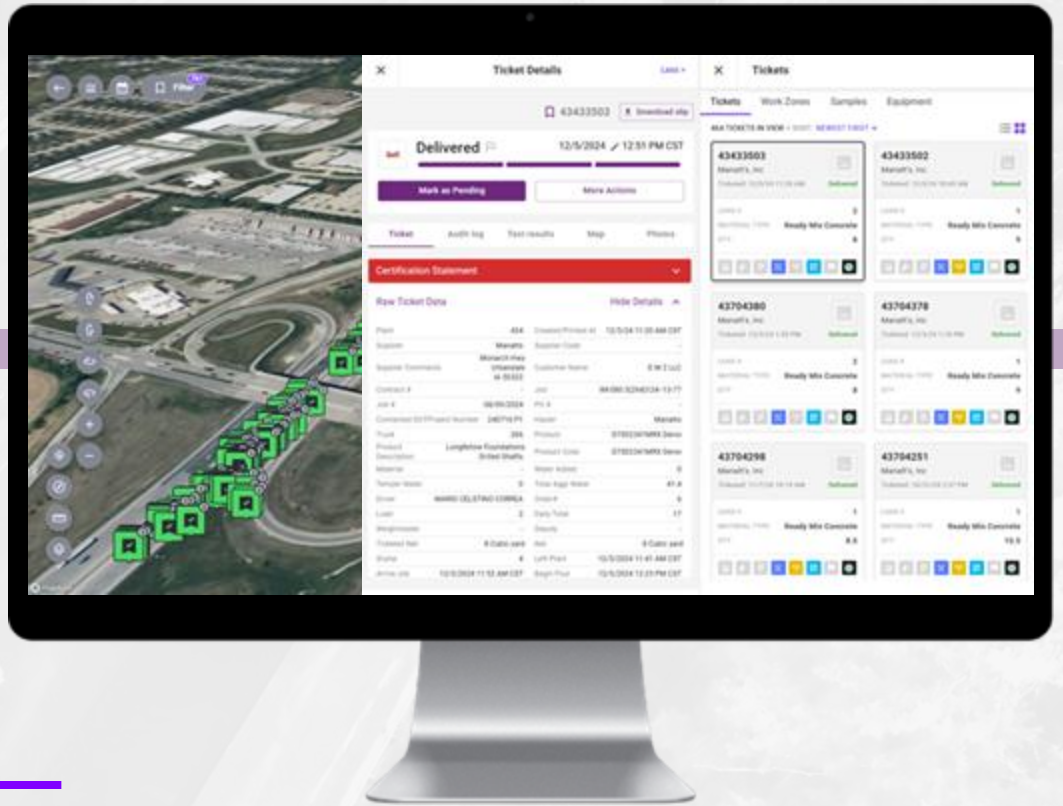


EDOT

Project Level Data Mapping

Instant Ticketing Data Access

Digital material ticketing data is available in real-time on mobile for field use or via the web.



Impact of EDOT Portal - Northeast

950K+

Material Tickets

1570+

Projects

1100+

Unique Employees

740+

Plants Connected

190+

Material Suppliers Connected

▲ *As of 08/30/2025*

ADVANCED DIGITAL CONSTRUCTION MANAGEMENT SYSTEMS (ADCMS) GRANT

EDOT

Accelerating Digital Inspection Practices with Connected Machinery

Purpose:

Proposes to integrate machinery data directly with contract and e-Ticketing driven material data. Material and machine data can be leveraged to begin automated work validation reporting, reducing time spent on low-value inspection activities at worksites, freeing up their time for higher-skilled work.

Participants:

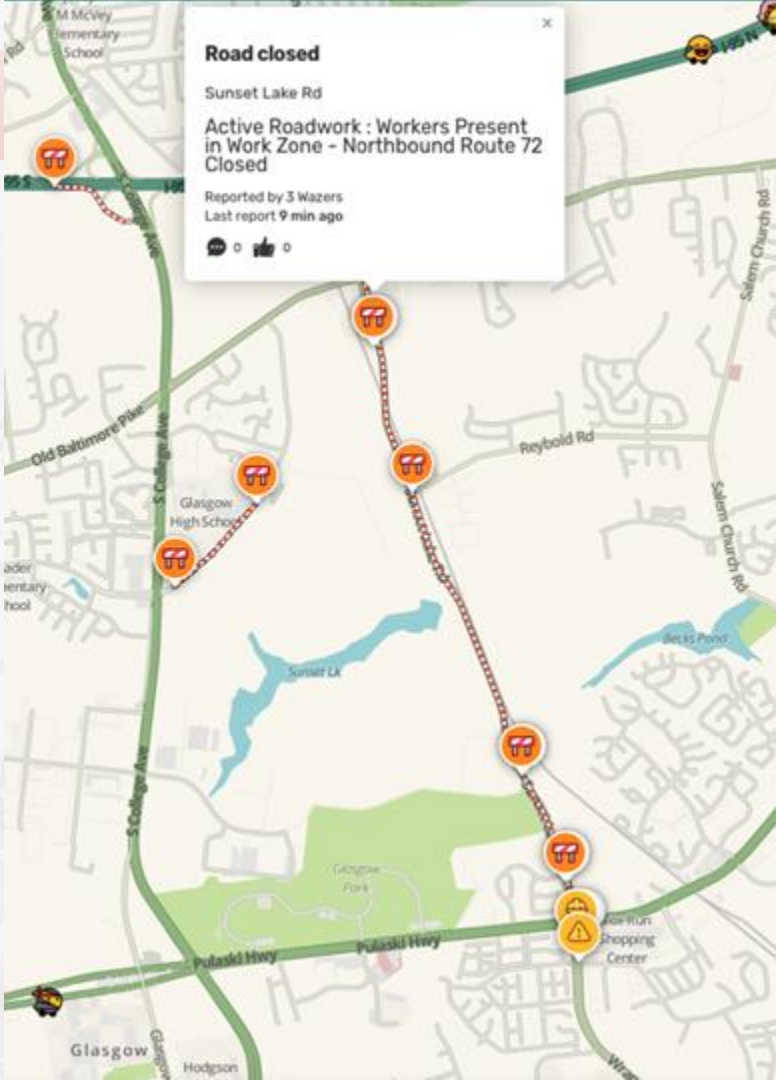
- Delaware DOT (Lead)
- Iowa DOT
- Nebraska DOT
- Louisiana DOTD

Award Amount: $4,000,000

Safety Goal:

- **Reduce Work Zone Incursions**

- Transforming every material load from plants, each machine in the work zone, digitally capable devices used during construction, and on-site staff presence into real-time safety indicators.



Digital Inspection Goal:

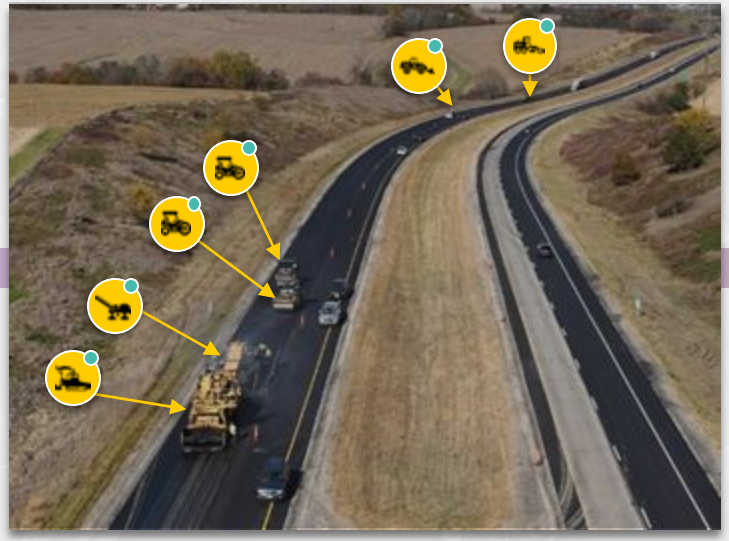
- Collaboration between tech providers, agencies, and industry to determine what data can be used to improve DOT processes for inspection.

- Research what data will be useful for both Agencies and Industry to increase project performance and efficiency.

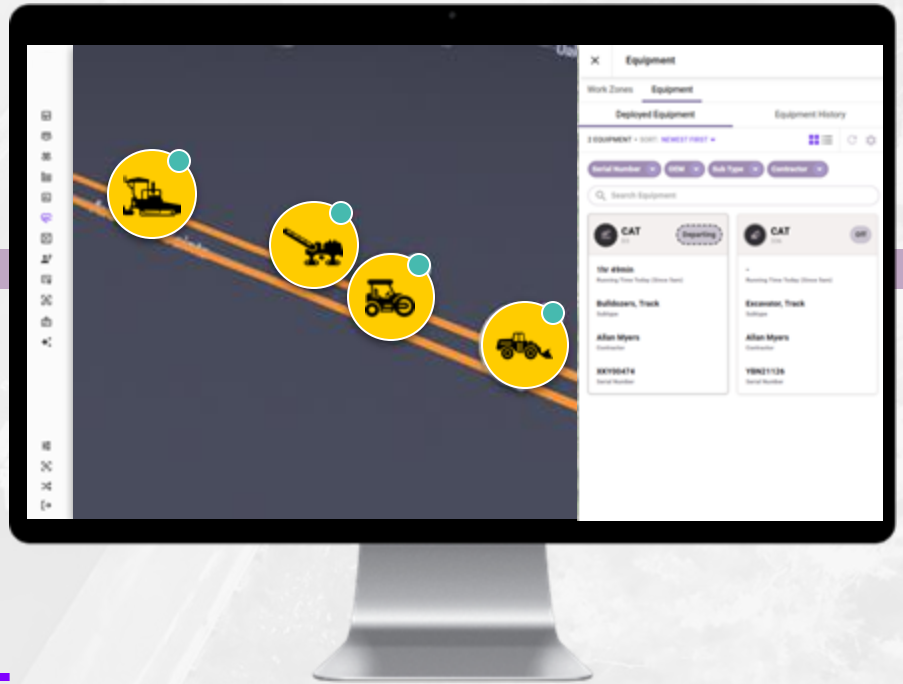
Connected Equipment in Project Maps

Construction Equipment Data
Real-time telematics from OEMs enhance project visibility and efficiency.

Physical Equipment Transmitting Data



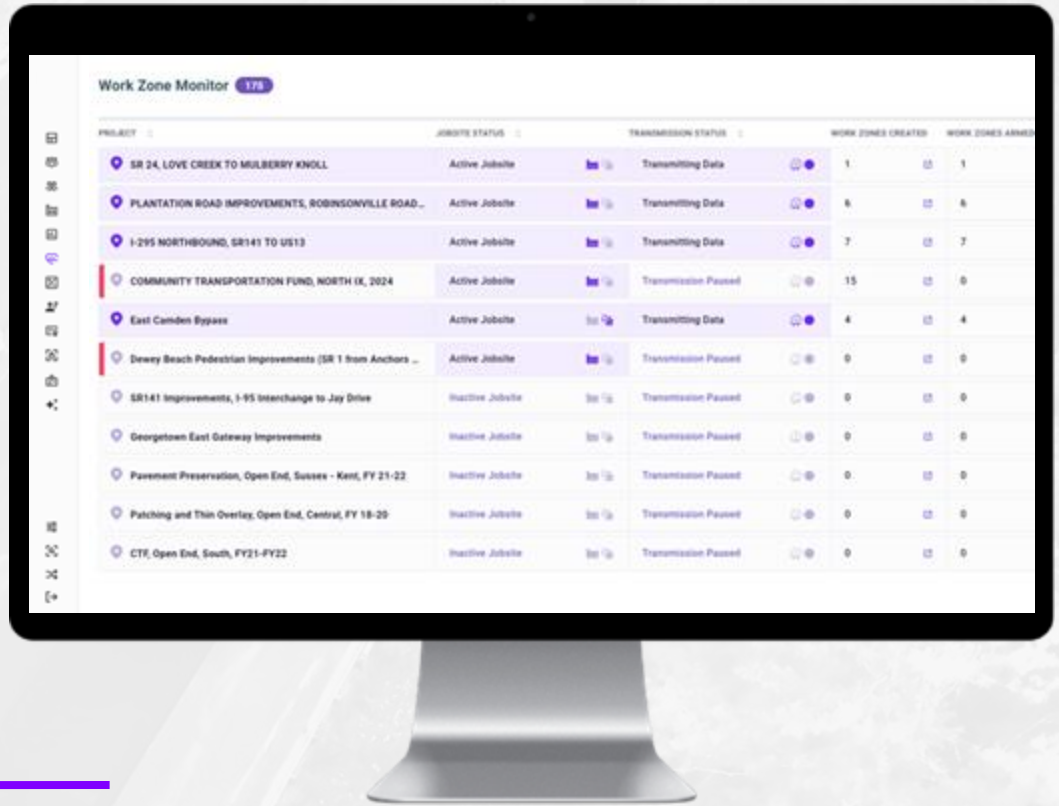
Digital Representation of Equipment



EDOT

Connected Equipment in Work Zones

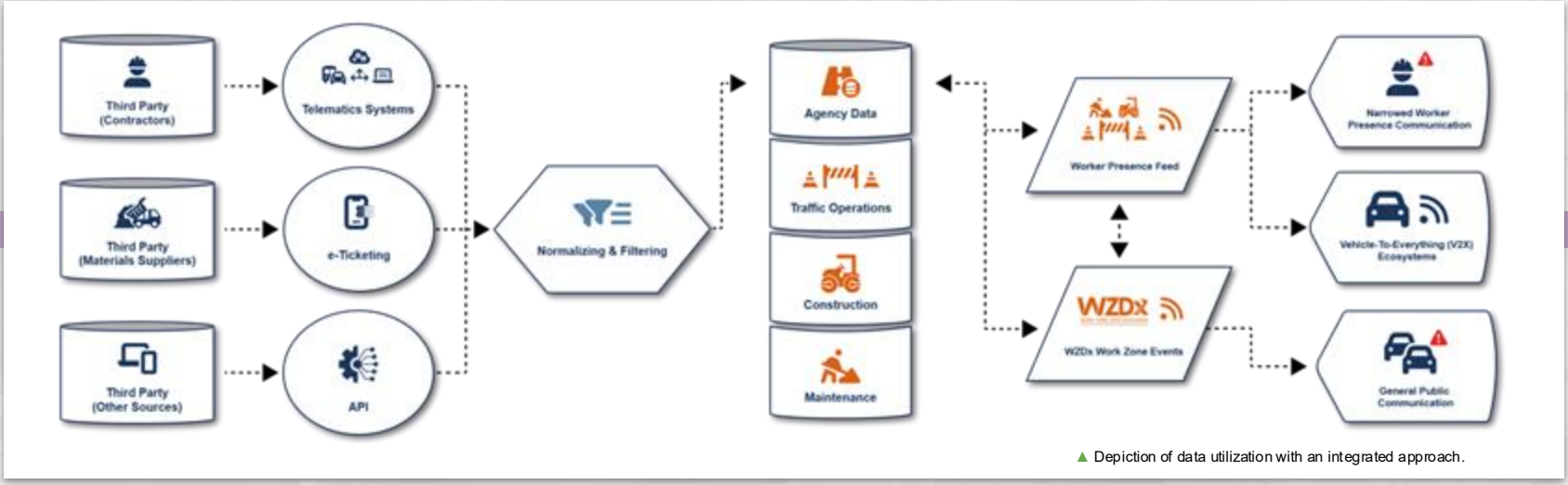
- Understand what work zones are active and when, at scale, across a state.
- Automatically broadcast active work zones, combining equipment status and material deliveries for highly accurate safety alerts.



EDOT

Real-Time Construction Worker Activity Feeds

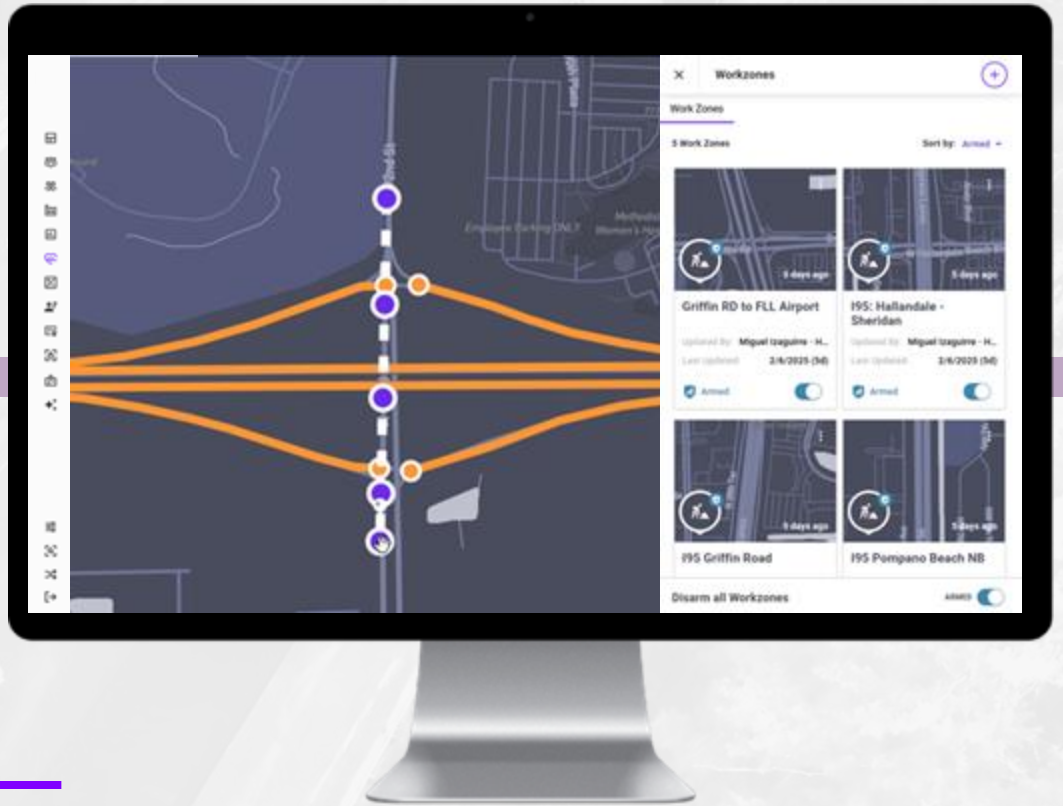
- Automatically determine active projects based on real-time portal activity.
- Agency-defined work zones trigger immediate public notifications when activated.
- Generates a WZDx-compliant feed for seamless integration into existing 511 and other agency systems.



▲ Depiction of data utilization with an integrated approach.

Work Zone Safety Feed - Setup

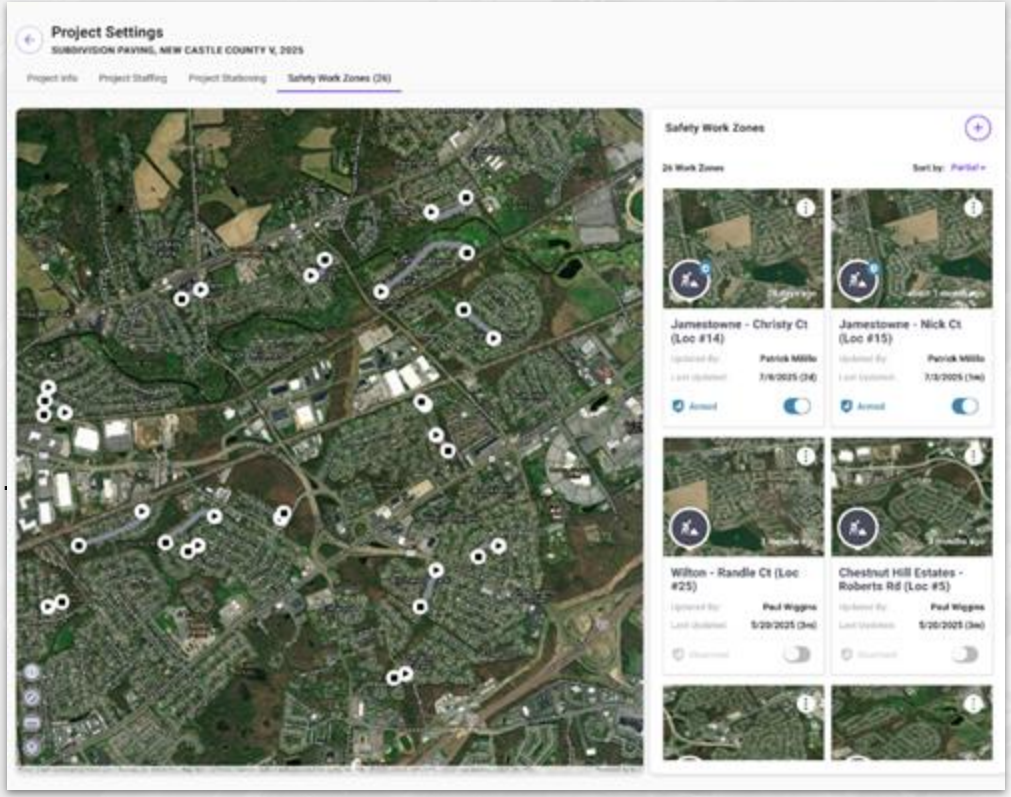
Flexible Work Zone Creation
Easily set up project work zones from the field or the web.



EDOT

Automated Digital Work Zone Creation

- **Accelerated Setup:** Quickly generates draft work zones from design files with DOT teams full oversight and control.
- **Alignment-Driven:** Uses project alignments and station data for accurate, effortless zone boundaries.
- **Automated Public Alerts:** Broadcasts construction activity to drivers in real time.



EDOT

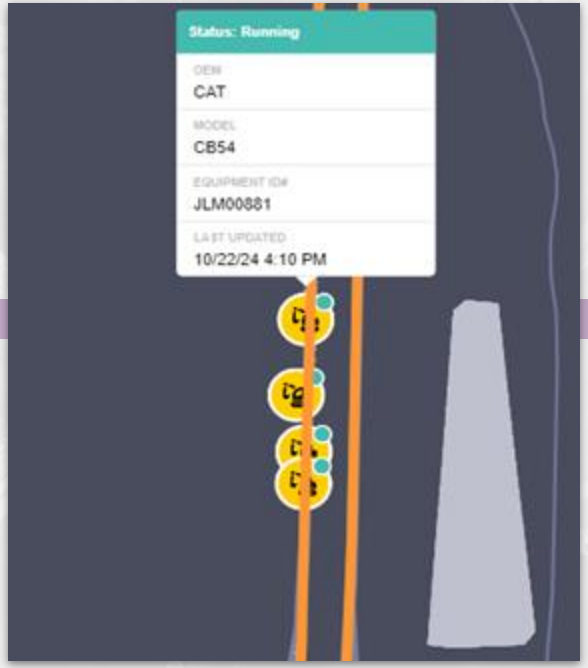
Connected Equipment at Job Site

- Improve work zone safety by combining detailed equipment status with materials ticket data.
- Integrate equipment data with existing materials ticket data to enhance digital inspection accuracy.
- Real-time visibility into equipment usage and performance, streamlining workflows and project oversight.

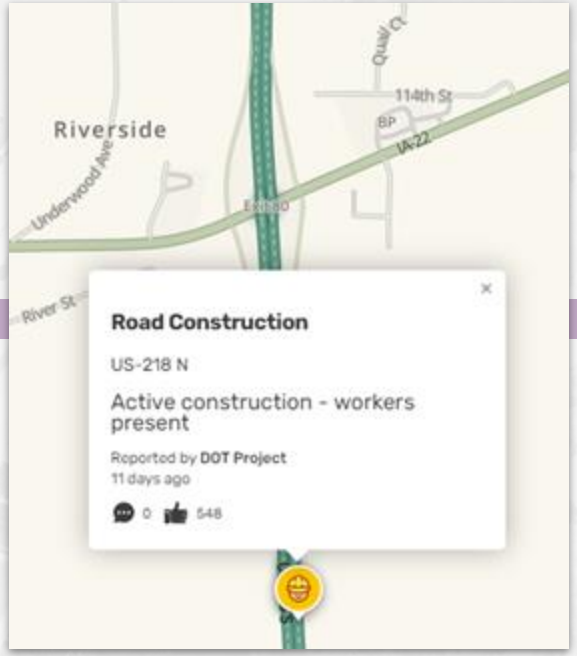
Safety Feeds with Connected Equipment

Construction Equipment Data
Enhance work zone safety feeds with telematics from equipment at the jobsite.

Showing Active (ON) Equipment On The Project



As shown on Waze at same time



CDOT

Waze Insights

Contributions

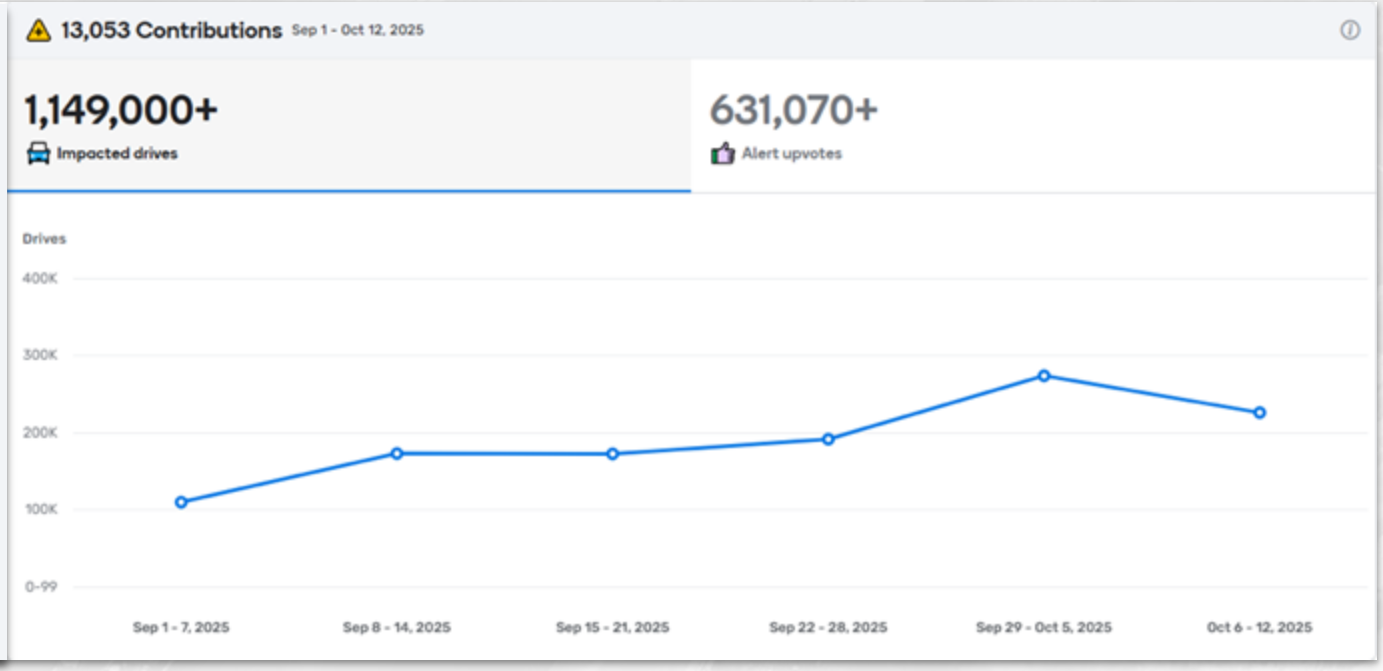
Total number of successfully processed road incident reports.

Impacted Drivers

Total number of drivers who benefited from map contributions.

Alert Upvotes

Total number of positive reactions to the alerts from drivers.



▲ *Summary of recent Waze map contributions and their effect on drivers.*

IN CLOSING

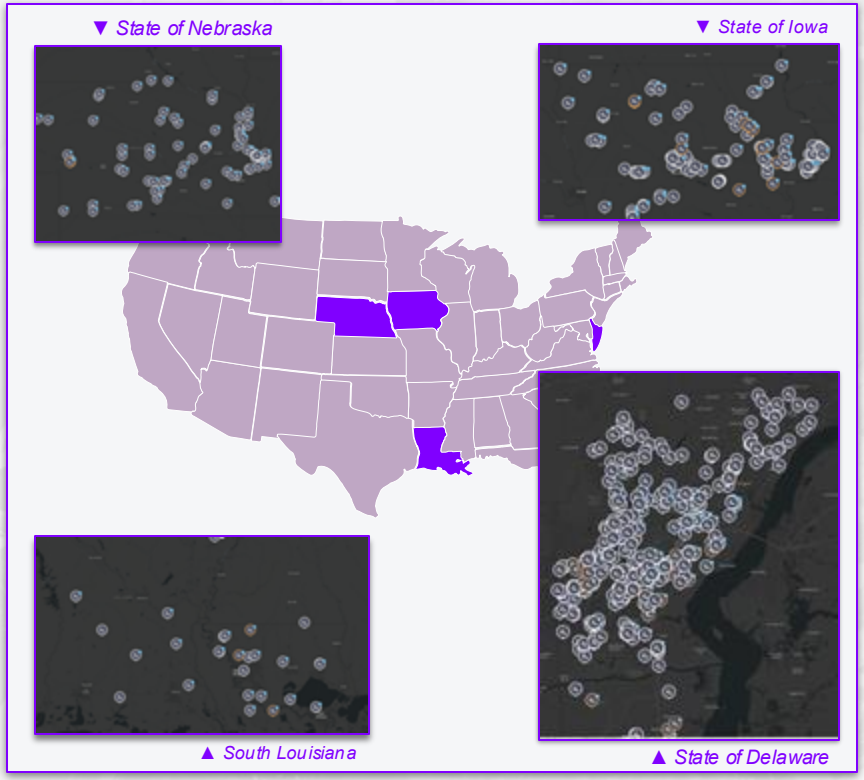
Progress Across Four ADCM States - Through Oct 2025

9.8M+ Automated Worker Presence Events

2400+ Connected Equipment

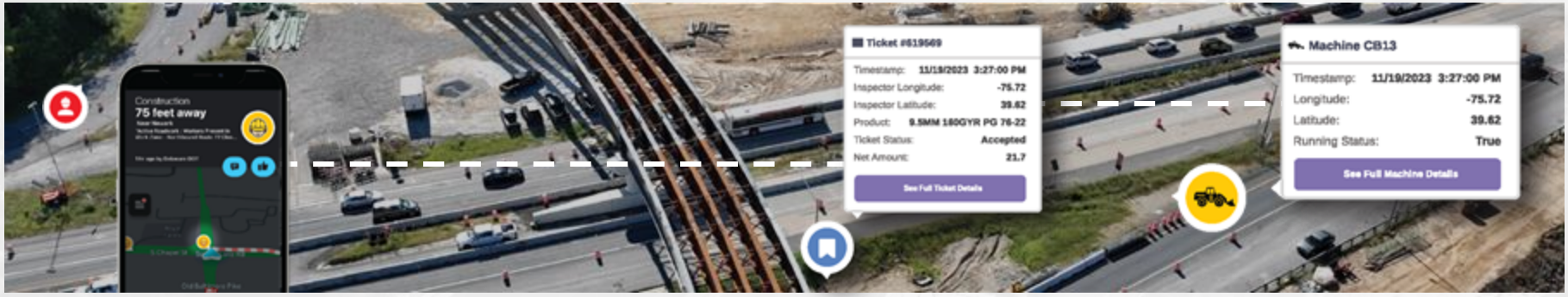
2200+ Digital Work Zones

8 Integrated OEM Telematics Systems



EDOT

Learn More On How It Works



A Digital Leap in Delaware

At the forefront of construction project management innovation, DelDOT identified a critical challenge: the need for better integration and communication within the diverse ecosystem of construction technology.

Scan to learn more

ADCMS: Building Momentum

DelDOT's ADCMS project is reshaping the construction industry by building a bridge between Owner and Contractor systems to significantly reduce barriers of entry for improving both safety outcomes and data-driven advanced inspection practices.

Scan to learn more

DOT

Recapping 2025 and Looking Forward

Expand number of contractors utilizing this technology

- Expanded to safety events to include concrete mixer truck telematics.
- Expand safety feeds to additional mapping providers (Apple, Google, etc.)
- Inclusion of other safety equipment.

CDOT

Questions? Get In Touch

Zach Ernst

Manager of Government Solutions - Northeast

Email : zach.ernst@haulhub.com

Phone : 774-217-8854

Web : www.e-dot.com

Solutions Expert

EDOT

POWERED BY HAULHUB TECHNOLOGIES

www.e-dot.com www.haulhub.com