
COMMERCIAL VEHICLE SAFETY ALLIANCE

CVSA®

# Netradyne

NAFMP Solution Series

North American Fatigue Management Program

**January 14, 2026**

# Slides & Recording

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nafmp.org/events/

Recording will be available afterwards at

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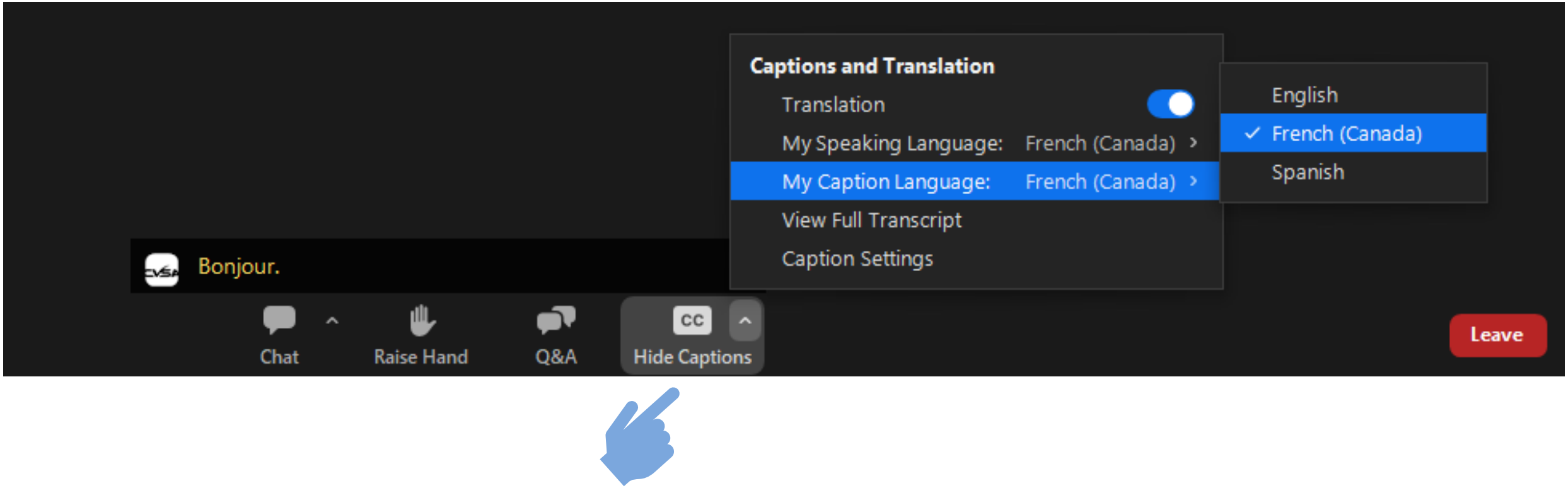

# Featured Speaker


## Philippe Riche

Director of Product Management

**Netradyne**

netradyne.com

Philippe.Riche@Netradyne.com

+1-833-476-9663

# Featured Speaker


## Susan Crampton

Field Marketing Manager

**Netradyne**

netradyne.com

Susan.Crampton@Netradyne.com

+1-833-476-9663

# Host


**Rodolfo Giacoman**

Fatigue Management Specialist

**Commercial Vehicle Safety Alliance**

cvsa.org

Rodolfo.Giacoman@CVSA.org

+1-202-998-1830

# Overview

1. Fatigue Management and Vendor Solutions
2. Netradyne Presentation
3. Questions

# Disclaimer

- Neither CVSA nor the NAFMP endorses or recommends any specific product or service
- The claims and system specifications of vendors have not been validated by CVSA or the NAFMP
- Solutions are a key component of a Fatigue Management Program

# Fatigue Management Program

- Safety Culture
  1) Education
  2) Training
  3) Continuous communications – Including partnerships
- Fatigue Risk Management System
  1) Operations
  2) Identify risks with processes and controls
     - Predictive, proactive, reactive
     - Sound scheduling & routing practices , sleep disorders management program, and fatigue detection technologies
  3) Risk assessment
  4) Measures and countermeasures
  5) Evaluation

# nafmp.org Free Resources

- Tools
  - FMP Template
  - Implementation Manual
  - ROI Calculator
- Courses
  - eLearning Platform
  - PowerPoints with and without audio
  - For carrier's executives, safety managers, dispatchers, instructors, drivers, driver's families, shippers & receivers
- Webinars, Info Sessions & Articles
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# Netradyne Presentation

netradyne

# Preventing fatigue related crashes

With award-winning drowsy driving detection that protects drivers, reduces claims, and gives managers clear, objective data

# Speaker & Agenda

**Philippe Riché**

Senior Director of Product

- The Netradyne mission
- The risk fatigue creates in your fleet
- How a Driver Monitoring System (DMS) Sensor changes the outcome
- What this looks like for your team
- How to test it in your fleet
- Security and privacy by design

# Our Mission

Partnering with fleet operators to deliver
**safety, efficiency and performance**
with real-time, edge intelligence

# Why pursue this mission?

Increased pressure on drivers and safety

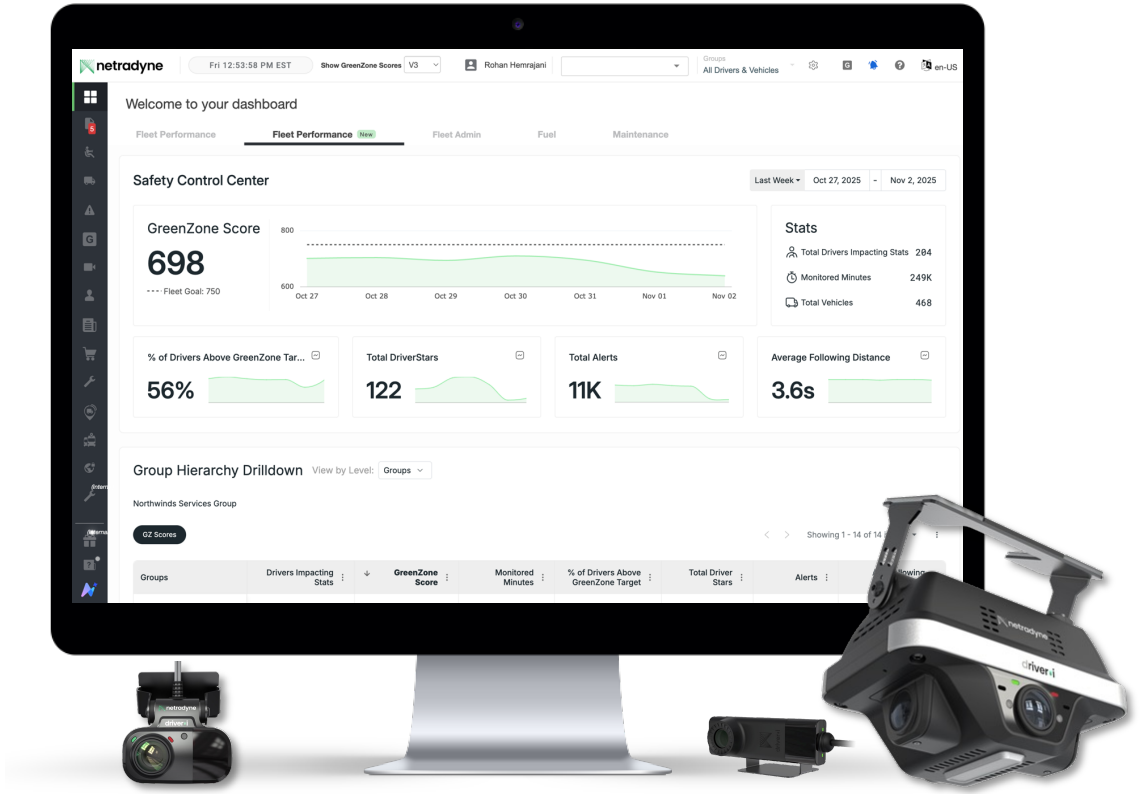
Operational burden and tight margins

Multiple systems to manage

# Partnering to address critical fleet challenges

One device. One platform. One partner for safe, efficient fleets

- AI intelligence based on full-context to **enhance safety** and **protect drivers.**
- Integrated fleet management to **streamline operations** and **reduce costs.**
- Secure, scalable platform to **simplify experience** and **tech stack.**



# Fatigue Management

# What is drowsy or fatigued driving

## Drowsy or fatigued driving is operating a vehicle while mentally or physically exhausted, sleepy, or tired.

This state significantly impairs driving ability, much like alcohol it:

- Slows reaction time
- Weakens judgment and decision-making
- Reduces attention, vigilance, and ability to process information

# Why fleets cannot ignore Fatigue

The NHTSA estimates fatigue plays a role in up to **40 percent** of heavy truck crashes

1.

1 in 25 drivers admit to falling asleep behind the wheel.

CDC

2.

Driving on 4-5 hours of sleep means you are four times more likely to crash

CDC

Each year, drowsy driving accounts for about 100,000 crashes, according to the

National Safety Council (NSC)

3.

**6,400** people die from drowsy driving crashes each year

National Sleep Foundation

4.

Losing two hours of sleep is like having **3 beers**

CDC

# Contributing to various factors

Fleets must address rising risks, costs, and inefficiencies while adapting to evolving safety expectations.

- Escalating accident & liability costs
- Claims management & staged incidents
- Operational complexity
- Rising operational costs

# Why is Fatigue hard to address

- Fleets have no clear policy to assess and handle Fatigue
- Fleets have very limited insights on actual driver fatigue
- Driver are under a lot of pressure to keep driving
- Relying on Driver alone to assess their Fatigue level is challenging
- Degres of Fatigue are subjective
- Fatigue is not just 1 behavior, it is a variety of Fatigue behavior
- Best policy is to have a team for real-time intervention

# How fleets try to manage fatigue today

Hours of service

Policies and training

Basic dashcams

# Your drivers are alone out there

**The hard part is knowing when to step in, not just what your policies say on paper.**

To change outcomes, you need more than guesswork.

**You need timely and accurate data.**

# Fatigue Management - Components

- **Deploy a dedicated monitoring system in the cab (Dashcam)**
  - A Driver Monitoring System (DMS) will monitor your driver Fatigue behavior and report real-time
- **Actively manage the drowsy alerts in real-time**
  - Fleet
    - Clear policy for Driver on what to do when Fatigued
    - Clear directions for Safety Managers to implement the policy
  - Drivers:
    - In-cab audio message to inform the driver to stay alert
  - Safety Managers
    - Use Dedicated Dashboard to track your drivers at risk of Fatigue
    - Monitor Fatigue progression for individual driver
    - Take action and call the driver
- **Coaching**
  - Review Fatigue alerts with Drivers and Fleet policy

# Evolution of Drowsy Detection


**Driver·i D-450**
126.6 x 78.6x 85.6 mm
**(4.98 x 3.09 x 3.37 in)**


**D-810 Dual View Camera**
57.5 x 35.8 x 45 mm
**(2.26 x 1.41 x 1.77 in)**

**Driver·i D-810 Hub**
174 x 110 x 62 mm
**(6.85 × 4.33 × 2.44 in)**

**DMS Sensor**
**3.22in x 2.19in x 1.57in with mount**

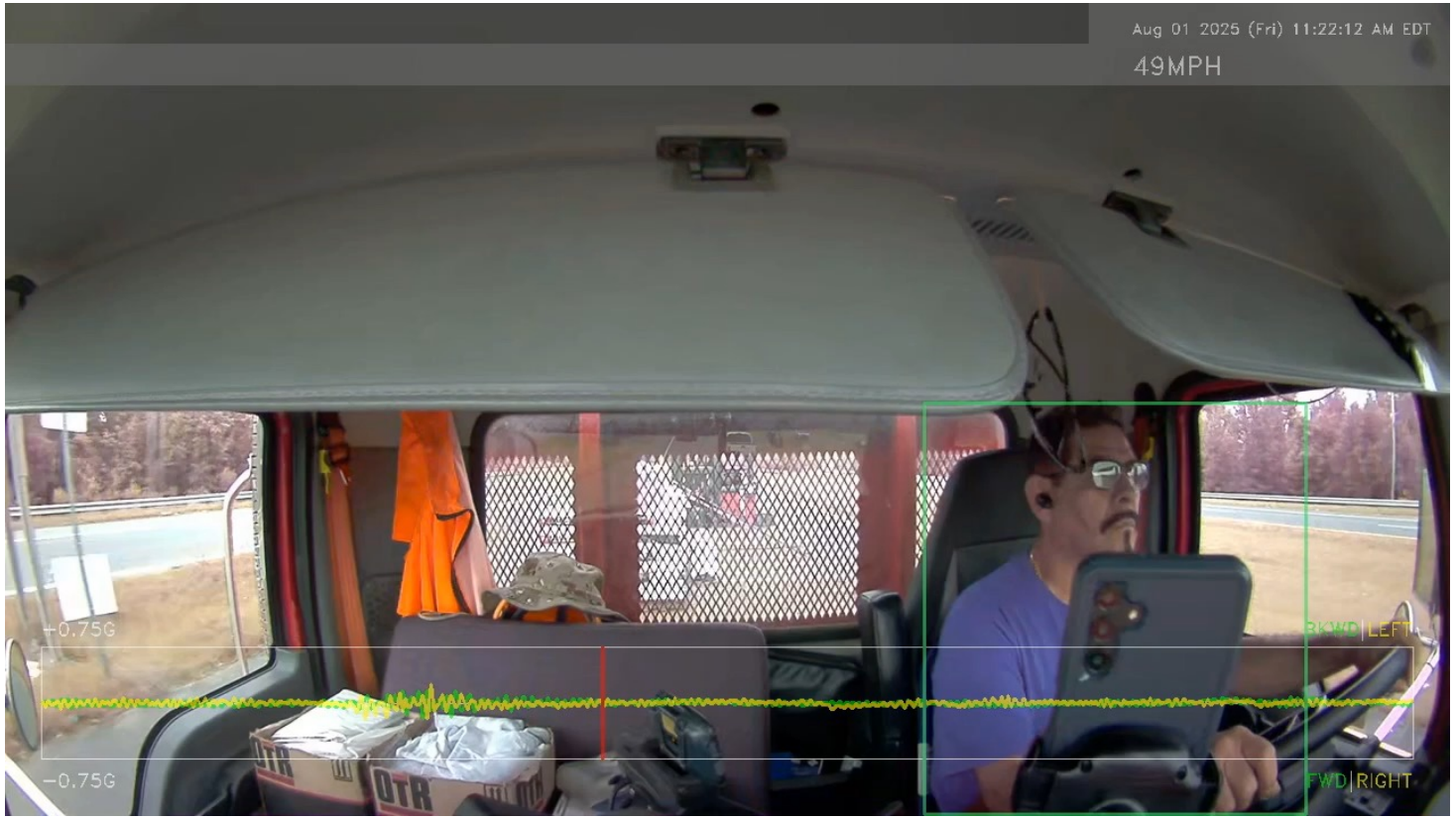

- Standard Dashcam
  1. Yawning
  2. Head movement, basic eye closure

- Dedicated Driver Monitoring System (DMS)
  - Precise eye and head movement detection

# In-vehicle Installation

# DMS Sensor vs Dashcam

- Watches for early fatigue signals and severe drowsiness
- Alerts the driver in cab at the earliest moment
- Sends fewer but highly accurate alerts to managers




# How alerts work

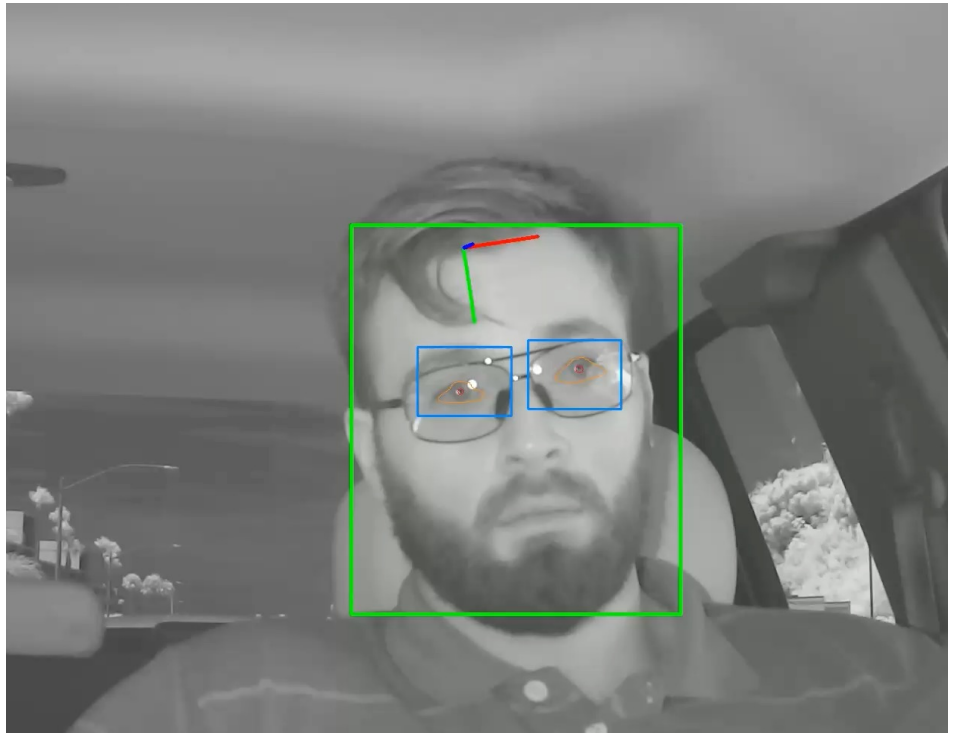
Driver drowsiness detection with DMS Sensor is much smarter and more helpful than our previous version.

**First Moderate Alert:** In-Vehicle Voice for Drivers
When signs of drowsiness are detected, drivers receive an immediate in-vehicle audio ‘nudge’ alert, prompting them to refocus or take a break.

**Second Moderate Alert:** In-Vehicle Voice and Dashboard
If drowsy behavior continues and a second in-cab alert is triggered within the same hour, a Moderate Drowsy Alert is sent to your fleet management dashboard.

**Severe Drowsy Alert:** Three Beeps, Voice and Dashboard for serious events like microsleeps or prolonged eye closure, a Severe Drowsy Alert is sent instantly to IDMS for immediate action.

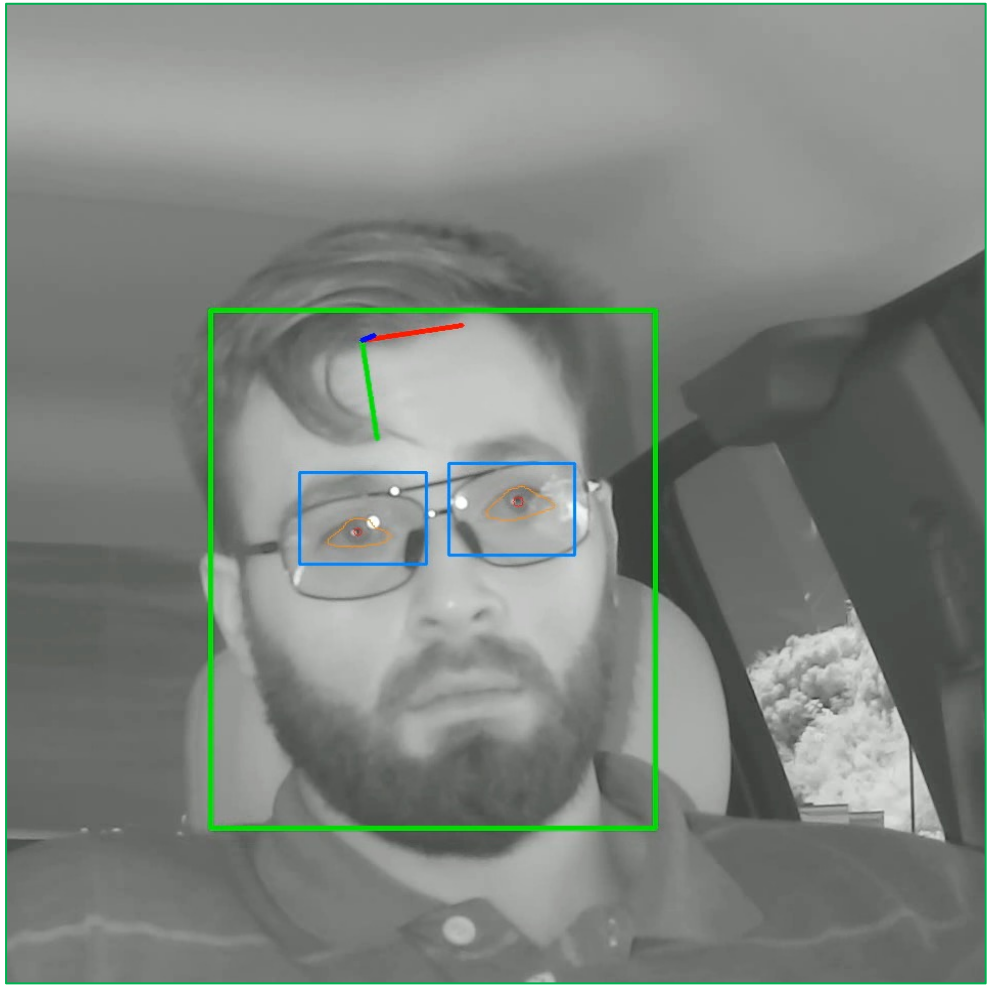
If Vehicle is equipped with **Netradyne Haptic feedback accessories**, the driver will feel a vibration for the drowsy alerts.



Note: If In-vehicle audio is disabled the system automatically monitors and raises IDMS alerts after two “theoretical” in-vehicle alerts would have occurred, ensuring you never miss a critical event

# Drowsy detection that works with most glasses

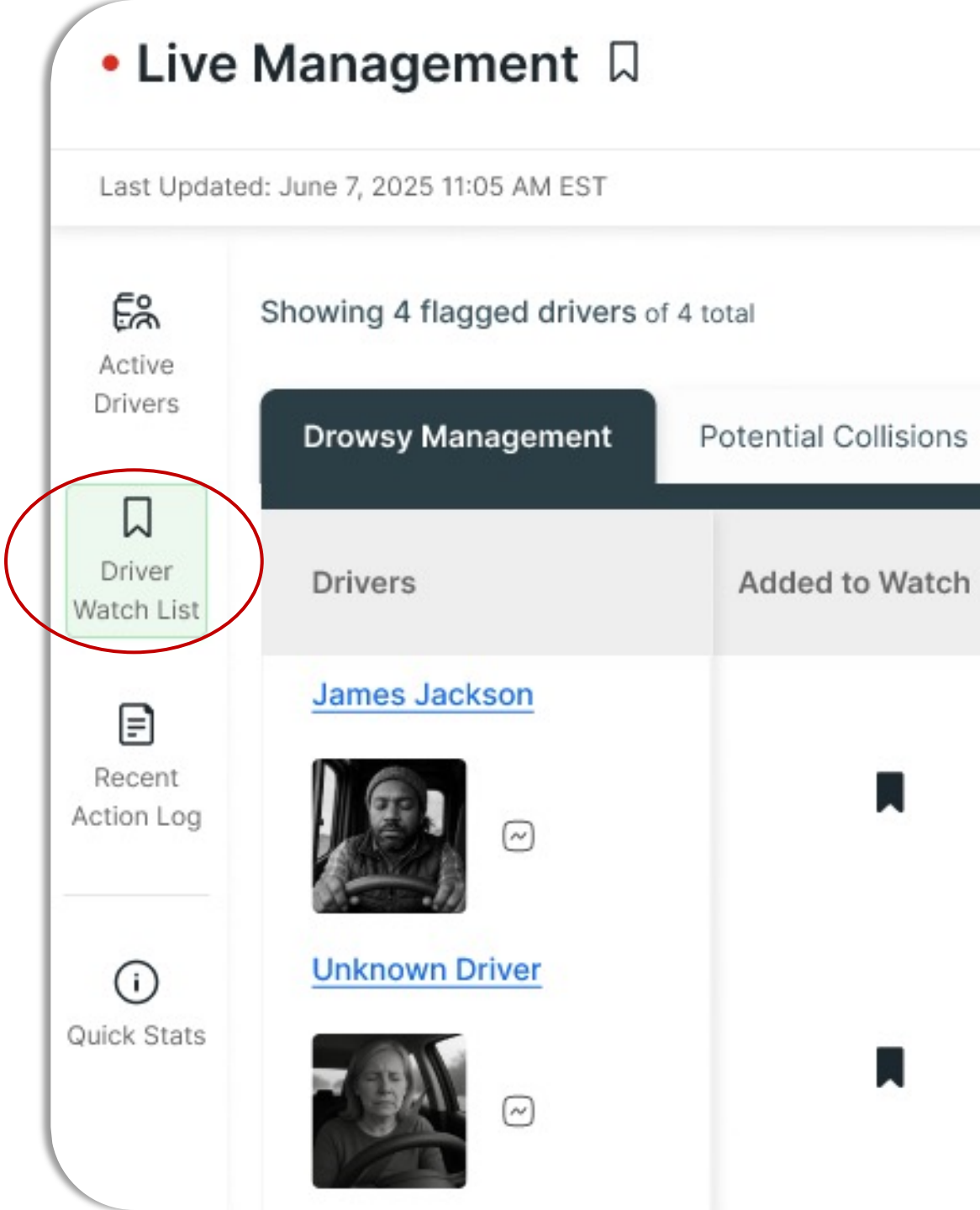
**What a standard dashcam sees**



**View from DMS Sensor:** Infrared sensing looks through most sunglasses to track eye behavior in low light and bright sun.

# A simple workflow for your managers

1. Spot at risk drivers fast
2. Review clip and context
3. Call or intervene
4. Log what you did for proof and coaching



# Benefits of Fatigue Management

- **Builds trust.** Drivers and managers know a Severe alert really means something, so it is easier to act on it.
- **Keeps drivers safer.** Early and severe fatigue signals are handled differently so you can prevent more incidents, not just review them.
- **Improves focus.** Safety managers spend less time clearing noise and more time with the few drivers who really need help.

# By actively managing Fatigue

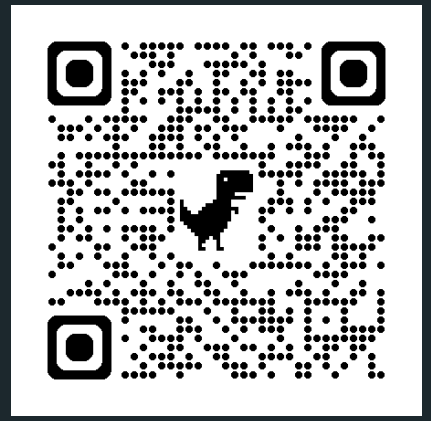
**Fewer severe crashes**

**Lower legal and insurance exposure**

**Stronger safety culture and retention**

# How to get started with Netradyne

Start focused, prove the impact, then scale



Schedule a Demo

1. Pick a pilot group
   - 30–50 higher risk vehicles, routes, or regions
2. Run DMS Sensor for 60–90 days
   - Turn on drowsy detection and manager workflows
3. Track what changes
   - Fatigue alerts, interventions, crashes, and claims
4. Review results with our team
   - Decide where to expand and how to roll out

# Security & privacy built in

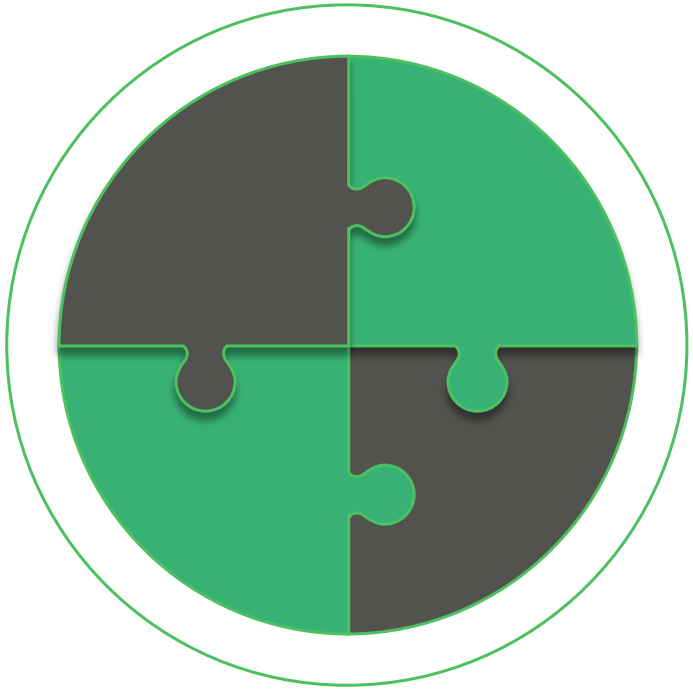
# Your partner in an evolving privacy landscape

Keep drivers protected and data under your control

**Protect data and drivers.** Encryption, strict access controls, and audited systems keep video and event data secure.

**Meet changing rules.** Flexible retention and regional settings align with local laws and internal policies.

**Fit your privacy culture.** Multiple privacy modes and blurring options you can configure by fleet, region, or group.



# A foundation of trust and transparency

The Pillars of Netradyne's Privacy by Design

**Transparent Collection**
We capture video and related event data like location and speed.

**On-device processing**
Data is processed on the device so less than 1% of all data is uploaded for review.

**Controlled access**
All data is encrypted. You control who sees what through custom user roles and permissions.

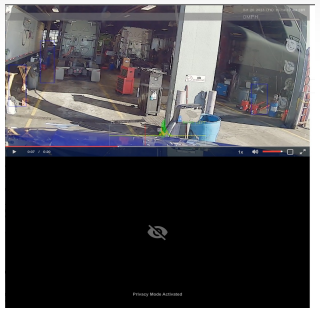
**Video anonymity**
We can automatically protect video and identities by blurring faces and license plates and adding watermarks.

**Defined Retention**
You define your data's lifespan. Our flexible policies let you set how long data is stored on the device.

# Two privacy modes you control

Pick the right balance of safety and privacy for your fleet

## Regular Mode



**How it Pauses:** Vehicle stopped for 30s **OR** engine is off = Inward camera pauses

**How it Resumes:** Engine is started **OR** vehicle moves >5 mph = Inward camera resumes

**The Benefit:** A simple, automatic way to ensure driver privacy during breaks and downtime, building trust without any driver interaction required.

## Enhanced Mode in Action

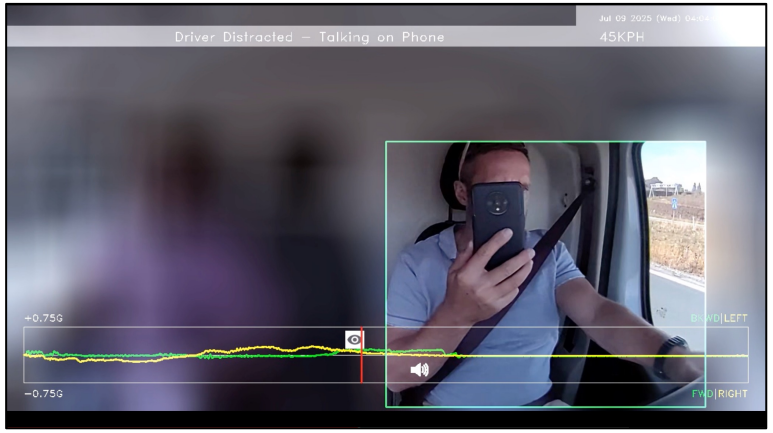
Inward camera analyzes for risks & Generates a "Sensor Only" Alert

Original video data is immediately deleted from the device and is never uploaded.

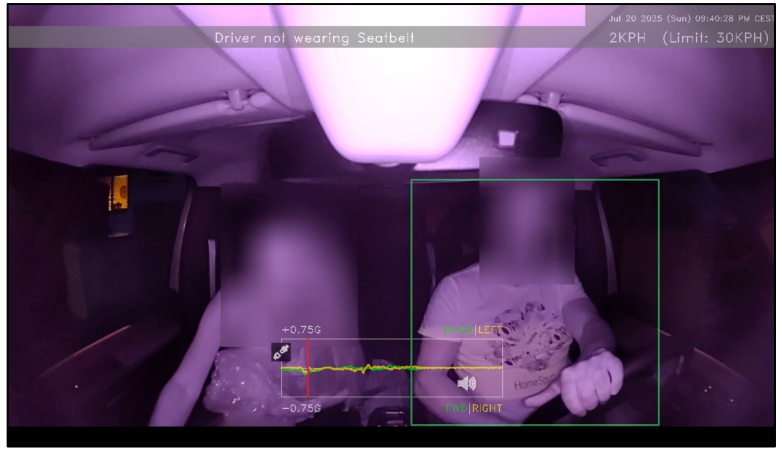
**The Benefit:** Get critical, real-time in-cab alerts for high-risk behaviors (like distraction or drowsiness) without ever storing or viewing the inward video. It's the ultimate combination of safety and privacy.

# Privacy in action: Blurring


No blurring

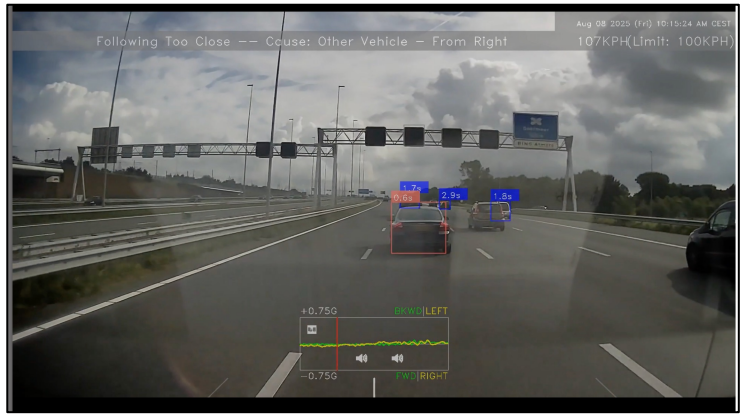



In-vehicle except driver




Driver & passenger face blurring


Driver face only




Outward blur

License plates and pedestrian faces

# Transparency recommendation

**Consent helps protect against lawsuits**

In-cab Safety Features


https://www.netradyne.com/legal/sample-consent-in-cab-safety-features

Not Legal Advice

# Key takeaways

**See Fatigue Earlier**

DMS Sensor spots early warning signs and severe drowsiness in real time, not after the crash.

**Act in the Moment**

Drivers get in cab coaching while there is still time to correct, and managers see a simple workflow for true high-risk events.

**Protect Drivers & Data**

Privacy modes and blurring options let you tune what is seen and stored so you can balance safety, privacy, and compliance

**Bottom line:** Netradyne with DMS Sensor help drivers stay alert, reduce incidents, and reduce risk without creating a privacy problem.


850
GreenZone
Fleet Average
COLLISION-WARNING
1 second ago | Engine ON • | 45MPH
Coachable Events
Hard Braking
Hard Acceleration
High - G
Traffic Light Violation
Hard Turn
Speeding Violations
Daily
Weekly
Monthly
December 2020
850
Fleet average score
DRIVER STAR AWARDED
2.8%
Notification
6.8%
Recognition
Dashboard
Alerts
Drivers
Event Access
Coaching
08:13PM EST
Feb 07 2022
DRIVER STAR

# Q&A

# Additional Questions?

Email additional questions to

Rodolfo.Giacoman@CVSA.org

Recording will be available at

nafmp.org/webinars

# Feedback

Please complete anonymous survey on this webinar at the end of the Zoom session

**Thank you!**


# CVSA®