How Artificial Intelligence and Edge Computing are Transforming Driver Safety, Retention and Recognition
The Challenge: Road Accidents are the leading cause of loss of life & property

- [US] 35K deaths & ~$800B financial loss due to road accidents in 2015*
- [Globally] est. 1.25M deaths annually**
- 94% of accidents are due to driver related reasons***

*https://crashstats.nhtsa.dot.gov
** WHO
Autonomous Vehicles will take a long time to replace the large installed base of ‘human driven’ vehicles. Assuming this prediction is true, <10% of all vehicles on the road will be autonomous by 2030!

Need to invest in our drivers now to have meaningful impact on safety! Can we leverage the same technology to improve driver behavior?
Capturing and Analyzing every minute of every driving hour

- 360 degree QUAD HD Cameras
- NVIDIA TX1 processor
- 4G LTE / WiFi / BT / GPS
- 120 dB HDR road-facing camera
- 9-Axis Accel / Gyro / Magneto Sensor
- J-1939/OBD-II integration

Netradyne Confidential & Proprietary
IoT with Edge Computing
Pushing Intelligence to the “Edge”

Commercial Fleets
Fleet Insurance*
~22M Commercial Vehicles
[Most large fleets are self-insured]

US Auto Insurance Market at $227B

Consumer Insurance

Cloud
Deep Learning Training
Driver Analytics
Crowd Sourced Fleet Analytics
Visualization
Critical Events – Detection. Causality. Reasoning

- Hard Braking
- Hard Acceleration
- Traffic Signals
- Stop Signs
- Seat Belt
- Hard Turns
- High gForce
- Following Distance
- Speed Threshold
- Fatigue Detection
Hard Braking with cause
Aggressive Driver
Traffic Light Violation
Stop Sign Violation
Great!
Incentive @ 900
Score = 700
Individual Coaching
<table>
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<tr>
<th><strong>Risk Assessment</strong></th>
<th><strong>Risk Reduction</strong></th>
<th><strong>Driver Retention</strong></th>
<th><strong>Claims Management</strong></th>
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<tbody>
<tr>
<td>Improved Risk Prediction using GreenZone™</td>
<td>Improved driver coaching</td>
<td>Recognize good drivers and positive driving</td>
<td>Increase efficiency of claims process</td>
</tr>
<tr>
<td>• More accurate premium setting</td>
<td>• Incentives based on GreenZone™ Score</td>
<td>• Identify &amp; Reward good drivers</td>
<td>• Reduce Litigation &amp; Subrogation costs*</td>
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<tr>
<td>• More targeted customer acquisition/retention</td>
<td>• Immediate intervention in high risk situations*</td>
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Large accident settlements and verdicts became more common [WSJ: ‘Nuclear’ Verdicts / 2016]
Thank you