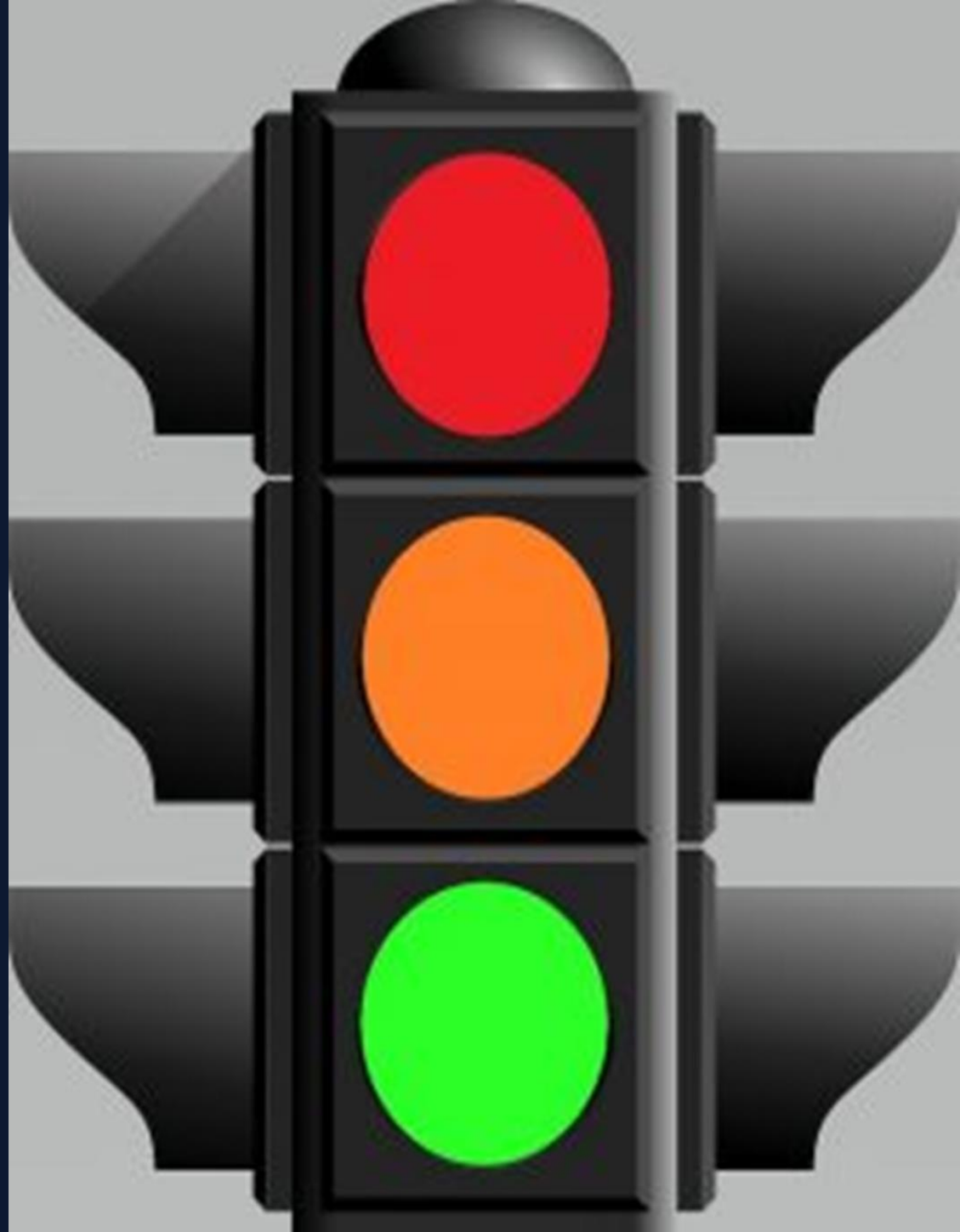
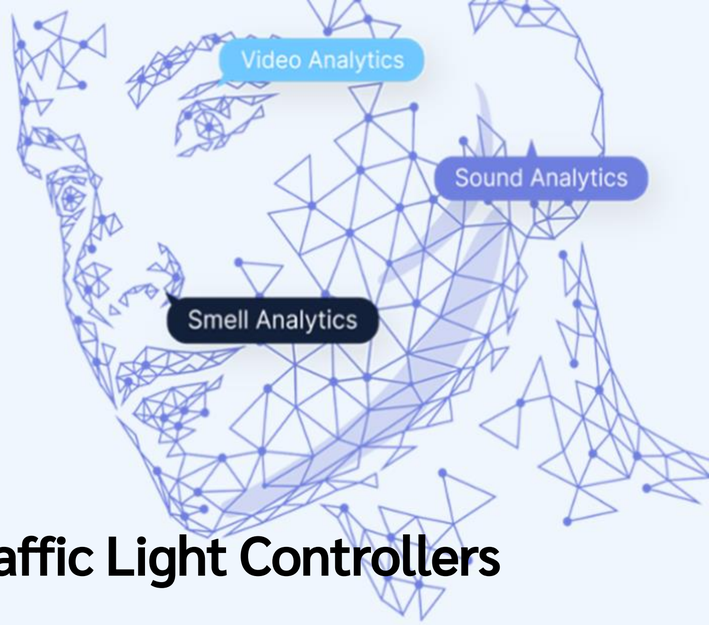
Advanced Adaptive Traffic Optimization

iOmniscient



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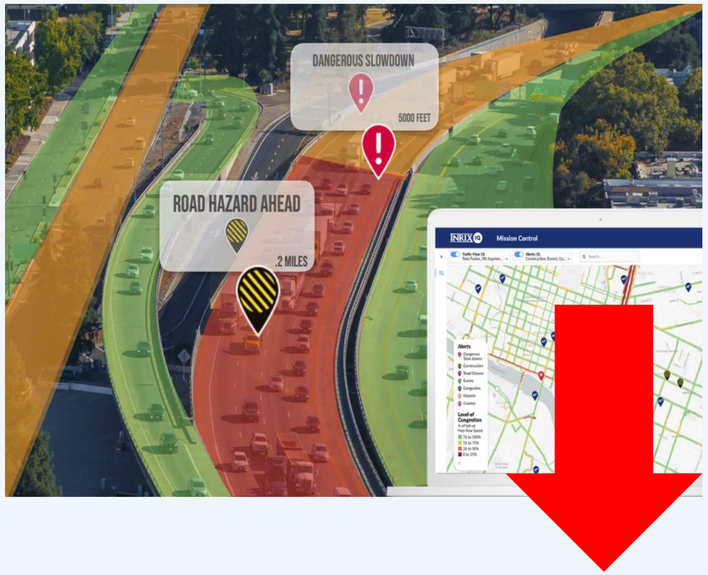
Introduction

- **Legacy systems**: decades-old, costly analog controllers, induction-wire inputs
- **iOmniscient's system**: cost-effective, real-time AI-based optimization
- **Part of Smart City portfolio**:
  - a Traffic Incident Management System
  - a Low Enforcement system
  - an Autonomous Response Emergency Management System



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Outcomes

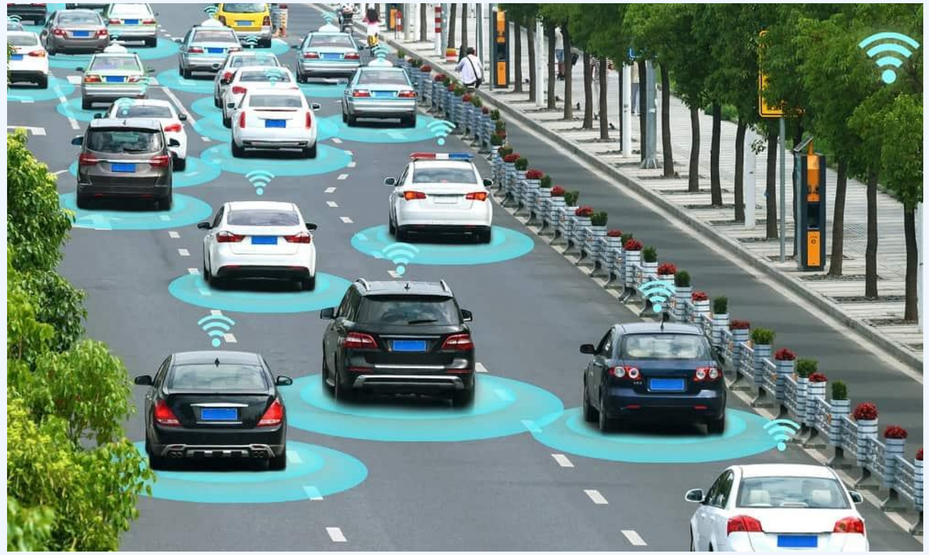


- Absolute Safety – 20% reduction in Fatal Traffic Accidents
- Optimized Traffic Management
  - 30% reduction in travel time
  - 25% reduction in stops
  - 15% reduction in fuel consumption
  - 15% reduction in emissions
- Reduced Response Time – 80% Reduction for Traffic Incidents

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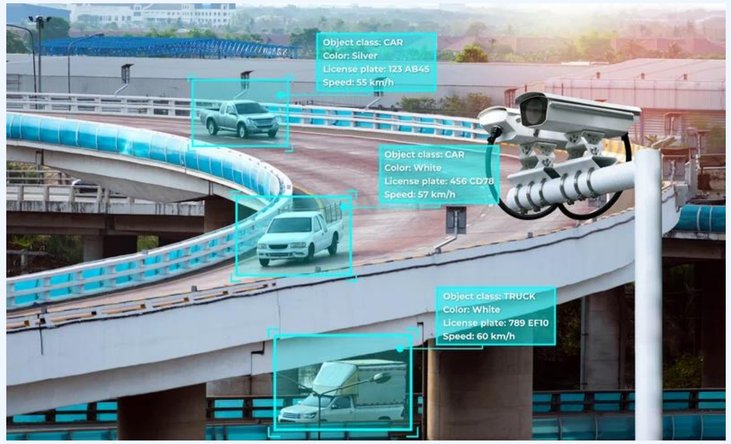
Data Sources

- Intelligent CCTV based understanding of the traffic flows
- Crowd sourced mobile phone data
- Drone based analytics to understand congestion and its causes
- Traditional analog based inputs from Induction loops



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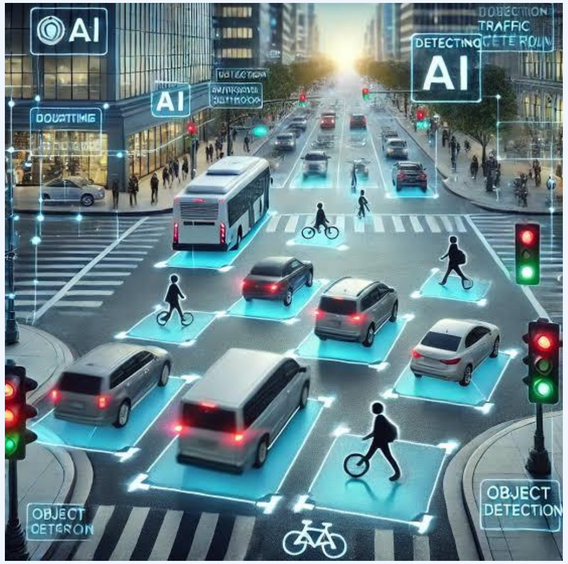
Adaptive Traffic Optimization

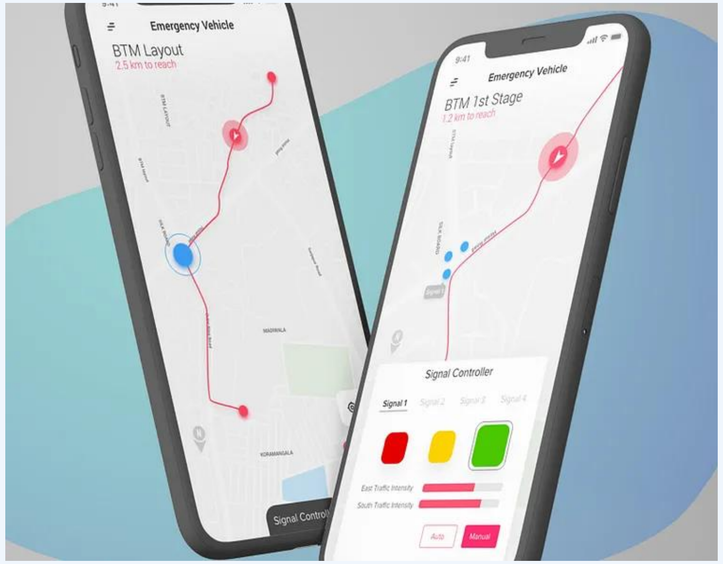


- Real time optimization based on multiple data sources
- Autonomous over-ride for emergency and other priority vehicles
- Automatic over-ride for local Police attending emergencies
- Data analytics for traffic planning
- Traffic Congestion Prediction

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Low Cost Traffic Light Controllers





AI enabled traffic light controller to ensure fail safe operation

Option for phone based manual override during emergencies

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iOmniscient & intel

Partnership

All iOmniscient Products run exclusively on Intel based computing hardware using OpenVINO™

- The use of Advanced AI technology that goes beyond Deep Learning enables iOmniscient to run its systems without the need for 3rd party GPUs.
- This reduces the power required by a factor of 16 – resulting in a 16-fold reduction in the carbon footprint.
- This is just one part of a multi-faceted program to help customers to implement Sustainable Systems.

www.iomni.ai

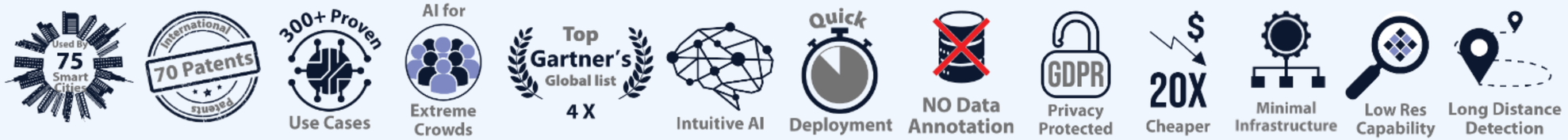
enquiries@iomni.ai

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About iOmniscient

- iOmniscient is an **Ethical AI** company.
- It offers **multi-sensory (video-sound-smell) Artificial Intelligence based analytics for Autonomous Systems.**
- It focuses on ensuring **Outcomes** for its customers.
- With **over 2 decades of experience,** iOmniscient systems have been demonstrated to be **robust,** operating with high accuracy and few false alarms specially in **complex and crowded** environments.
- By design, its systems **reduce the cost of infrastructure** required:
  - they can use existing cameras
  - they require fewer cameras with lower resolution
  - they require 90% less storage and network bandwidth
  - they are computing light and require no GPUs
  - they allow autonomous operations requiring fewer personnel to operate
- iOmniscient has implemented projects in **70 countries.**
- With over **70 international patents** many of its capabilities are unique and unavailable from any other source.





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