



Phoenix AZ: Using Artificial Intelligence in Detection and Adaptive Signal Technology

Hawaii ITE Technical Solutions Event

MAY 2022

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Introduction to NoTraffic

US HQ:
Palo Alto, CA

US Operations Centers:
Phoenix, AZ & Kansas City, MO

Global HQ:
Tel Aviv, Israel

Founded:
2017





Ecosystem of Mobility Products

1



Plug & Play
IoT Devices

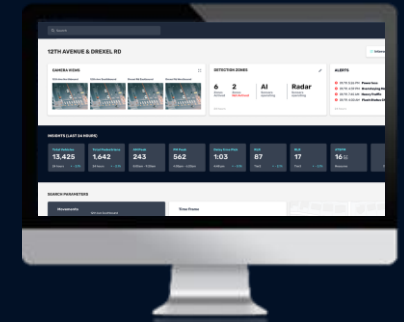
2

24/7/365 Live
Support Center



3

Intelligent
Insights

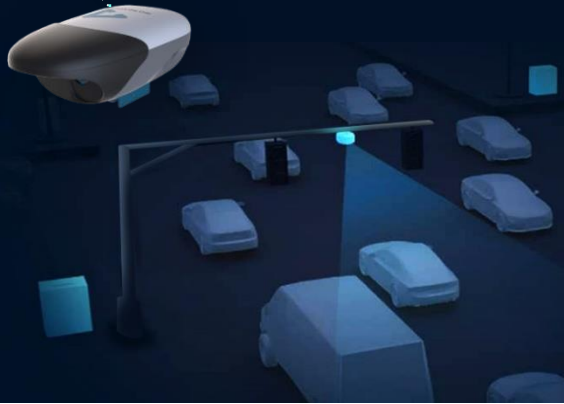


Enabling Smart Urban Transportation at the Grid Level



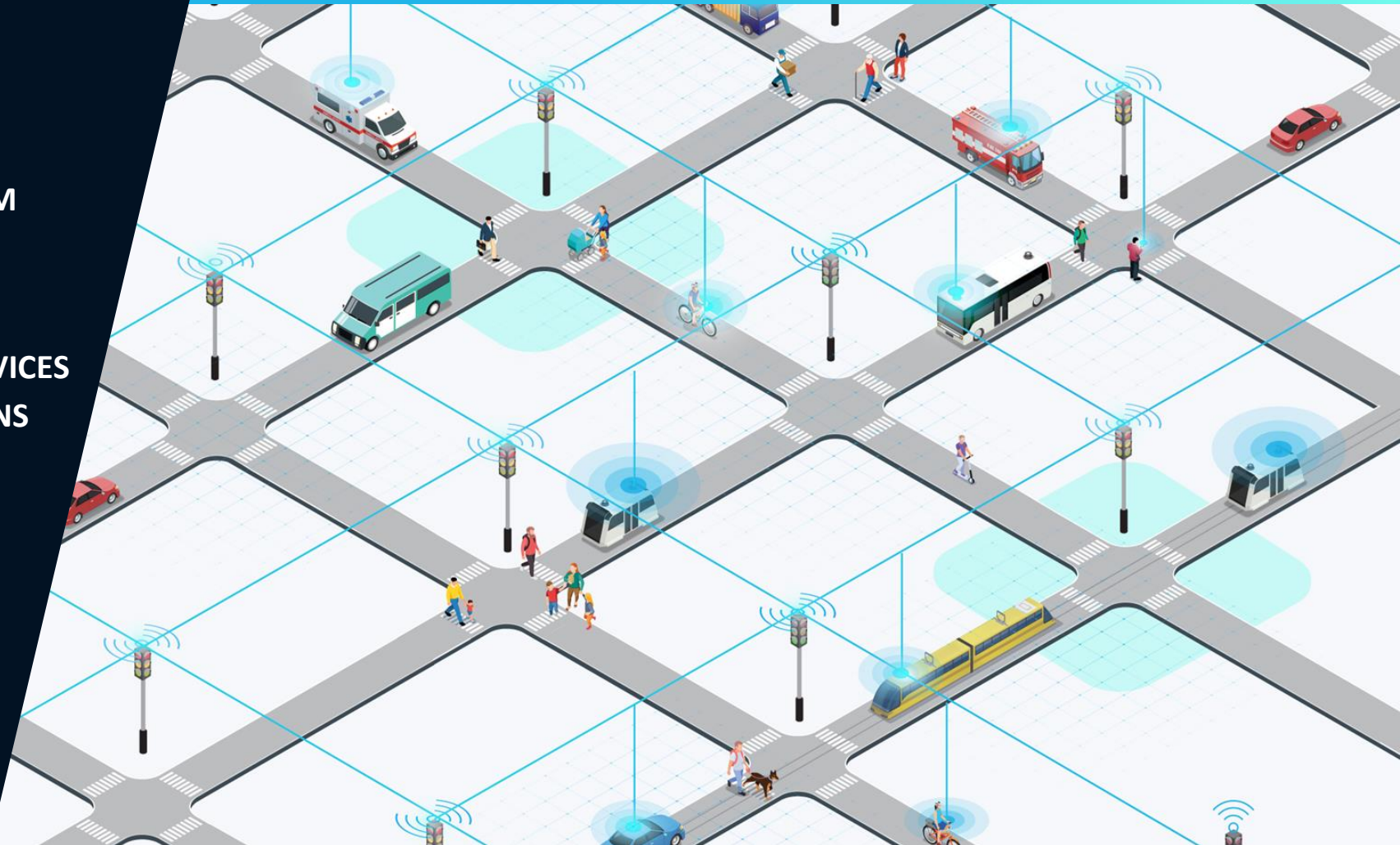
NOTRAFFIC SAAS PLATFORM

- ▶ **NOTRAFFIC PLUG & PLAY IOT DEVICES**
- ▶ **DIGITIZING URBAN INTERSECTIONS**



ECOSYSTEM OF APPS AND SOLUTIONS FOR CUSTOMERS

Optimal, Real-time Scenario for Traffic Lights
Ecosystem of Apps and Solutions for Customers



Digital Infrastructure



NoTraffic Sensor

- › Video + Radar
- › AI Edge Processing
- › Only requires A/C Power
- › Integrated CV Roadside Unit with DSRC & C-V2X



NoTraffic APP Engine

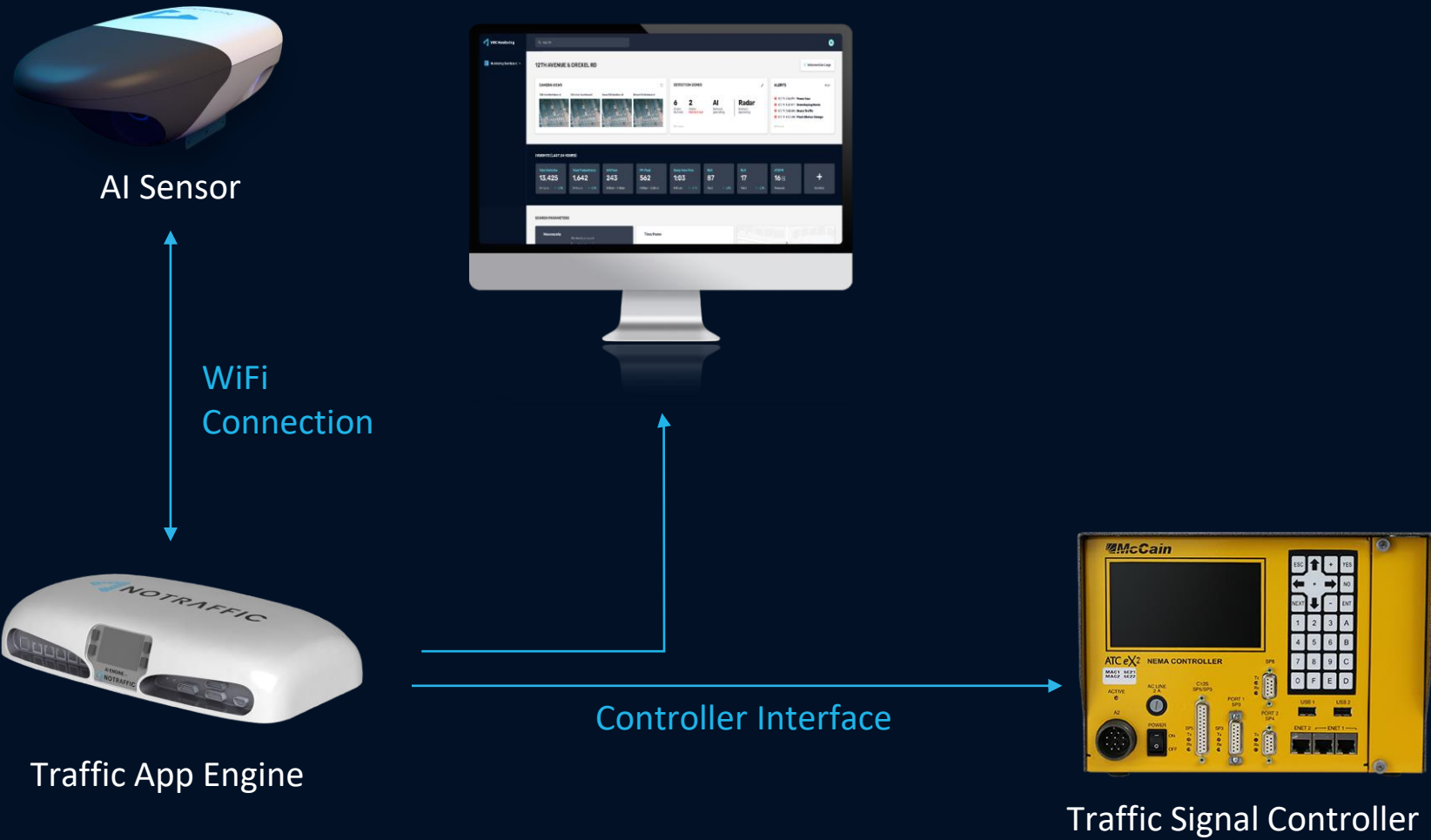
- › Digitizes the traffic cabinet
- › Runs NoTraffic intersection Apps
- › Communications over fiber, wireless or cellular
 - › Included 3G/4G/5G cellular
- › Universal controller compatibility- 170/2070, TS-1, TS-2, ATC



Cloud Based Services

- › Virtual Management Center
 - › Intersection Status
 - › Analytics
 - › Alerts
- › Interface with external systems
- › Over-the-air upgrades
- › NoTraffic App View

System Architecture





24 / 7 / 365 Days

- › Staffed with experienced traffic analysts
- › Recommending actions per agency process
- › Automated alerts & notifications
- › Real-time notifications into traffic & equipment issues

Artificial Intelligence



PRIVATE CAR
10MPH

Machine Learning

Extracting features.
A technique to achieve AI



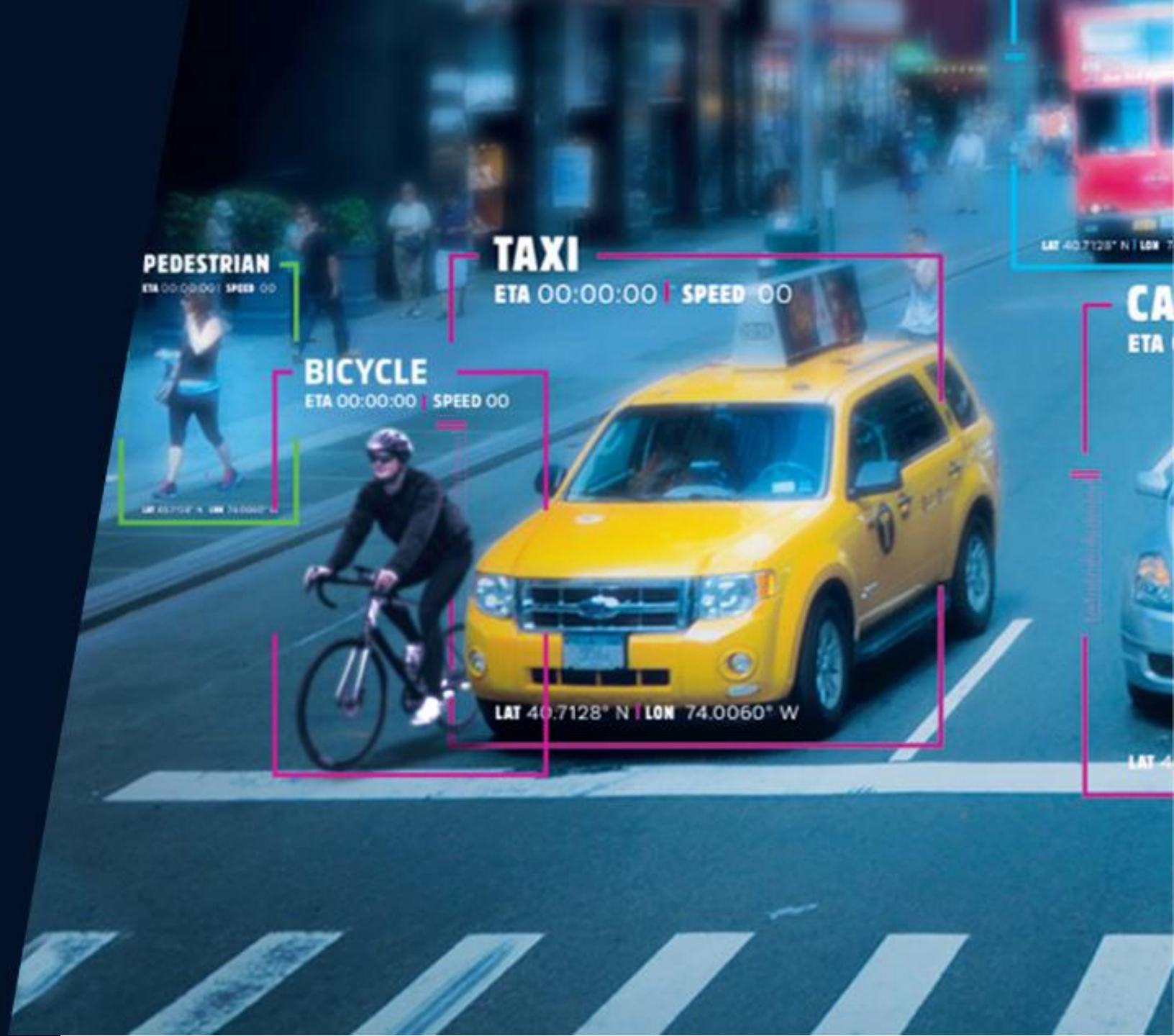
Deep Learning

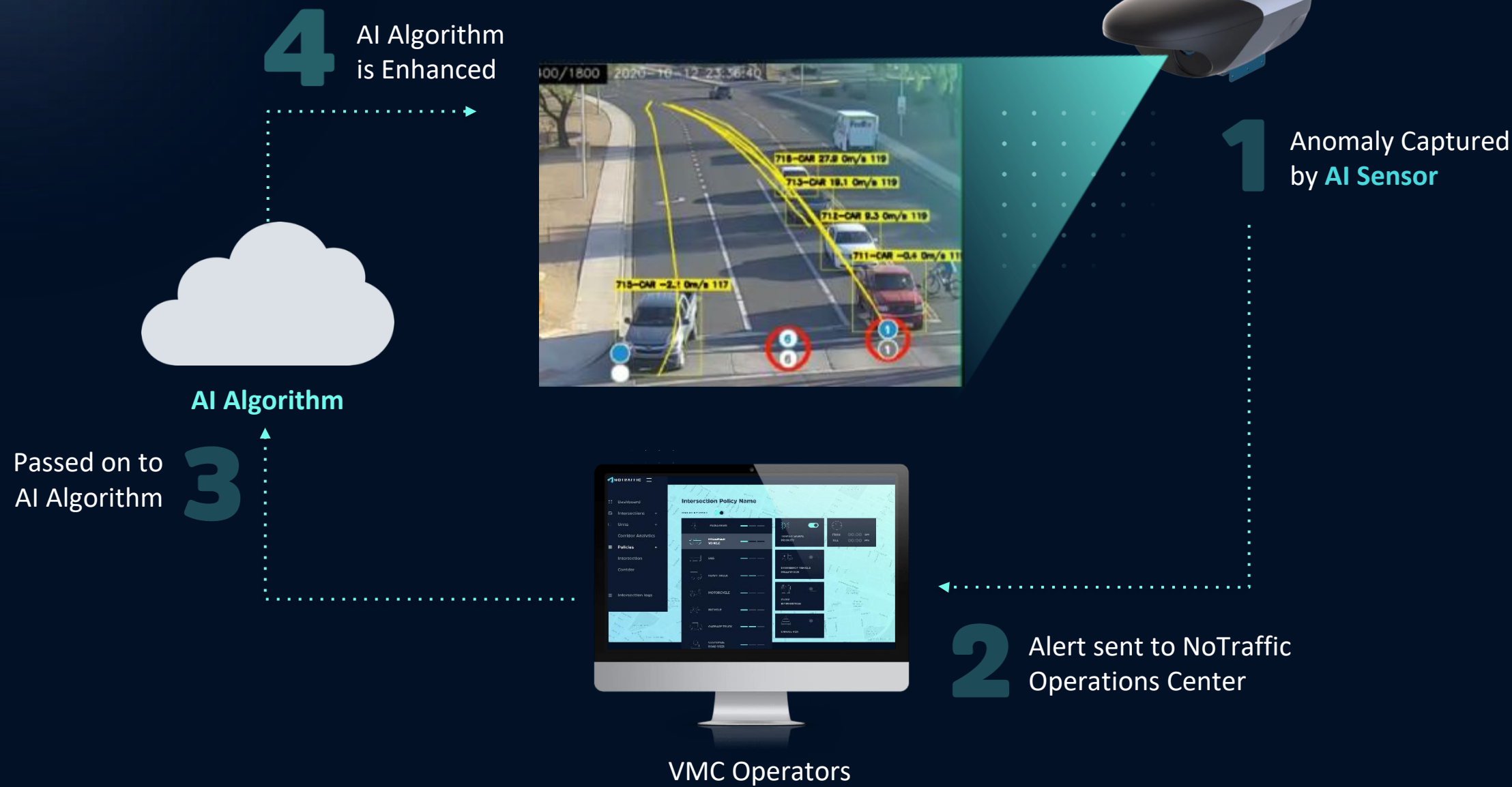
Is a subset of machine learning. System learns all of the features



Natural Language Processing (NLP)

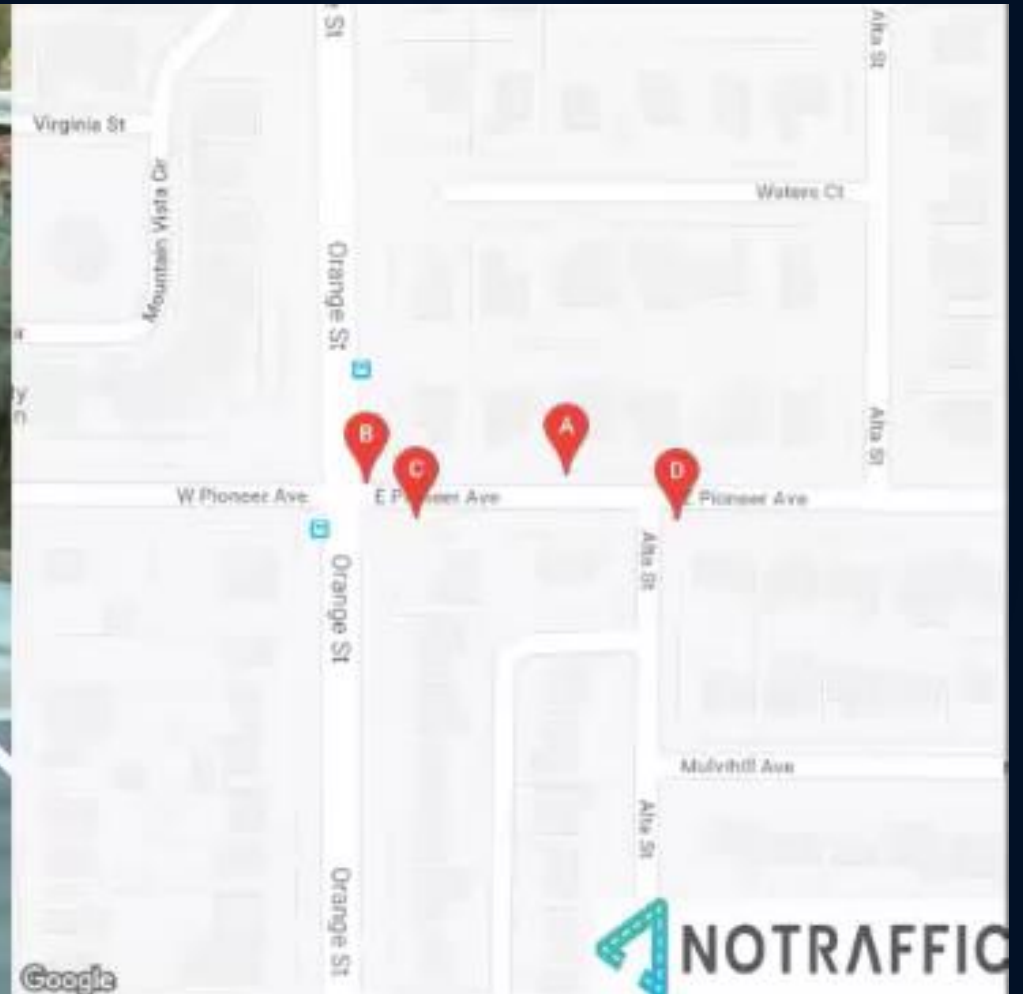
Converting human language to computer language



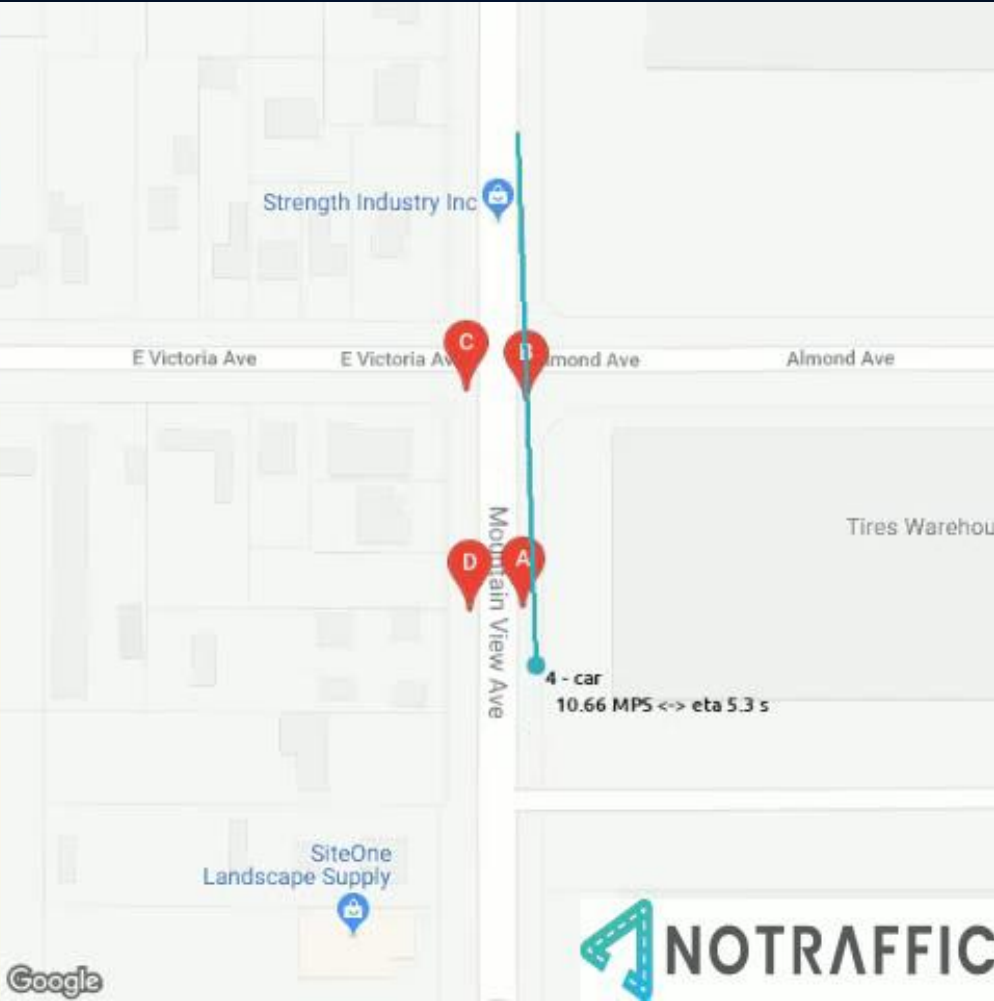


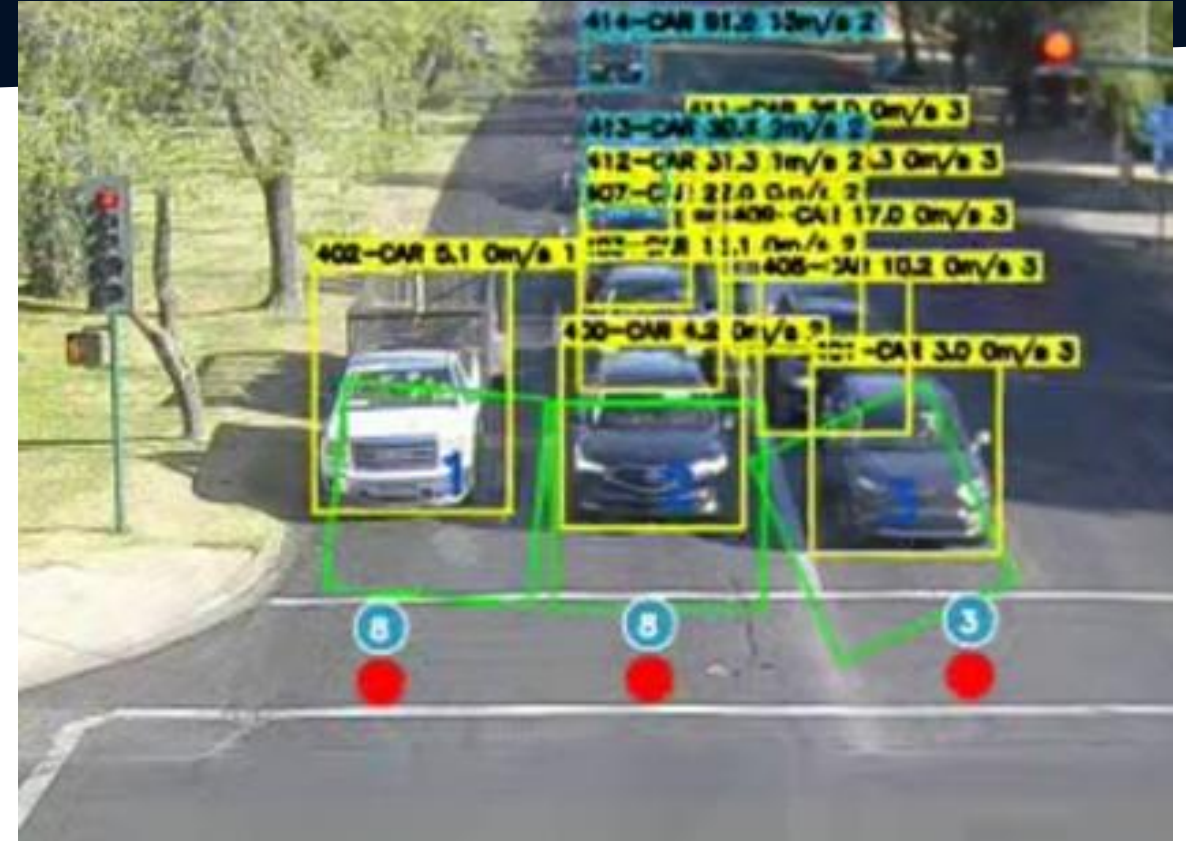
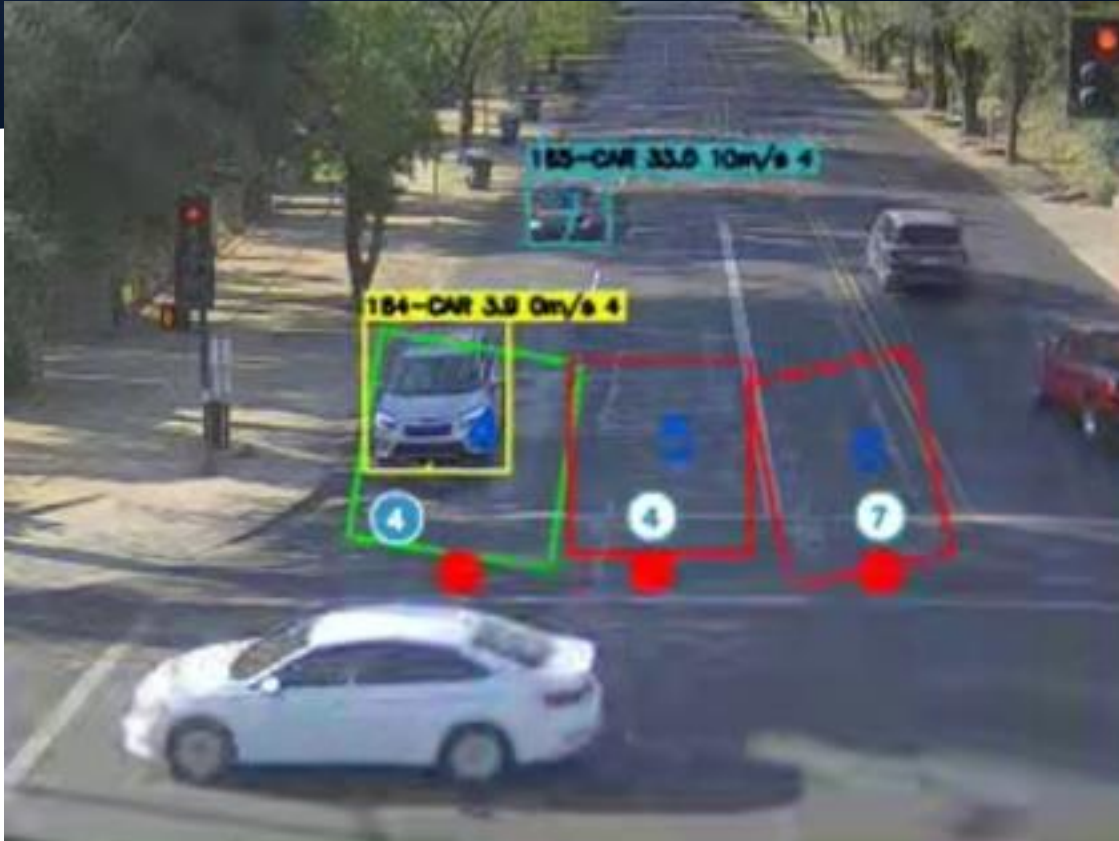
Detection



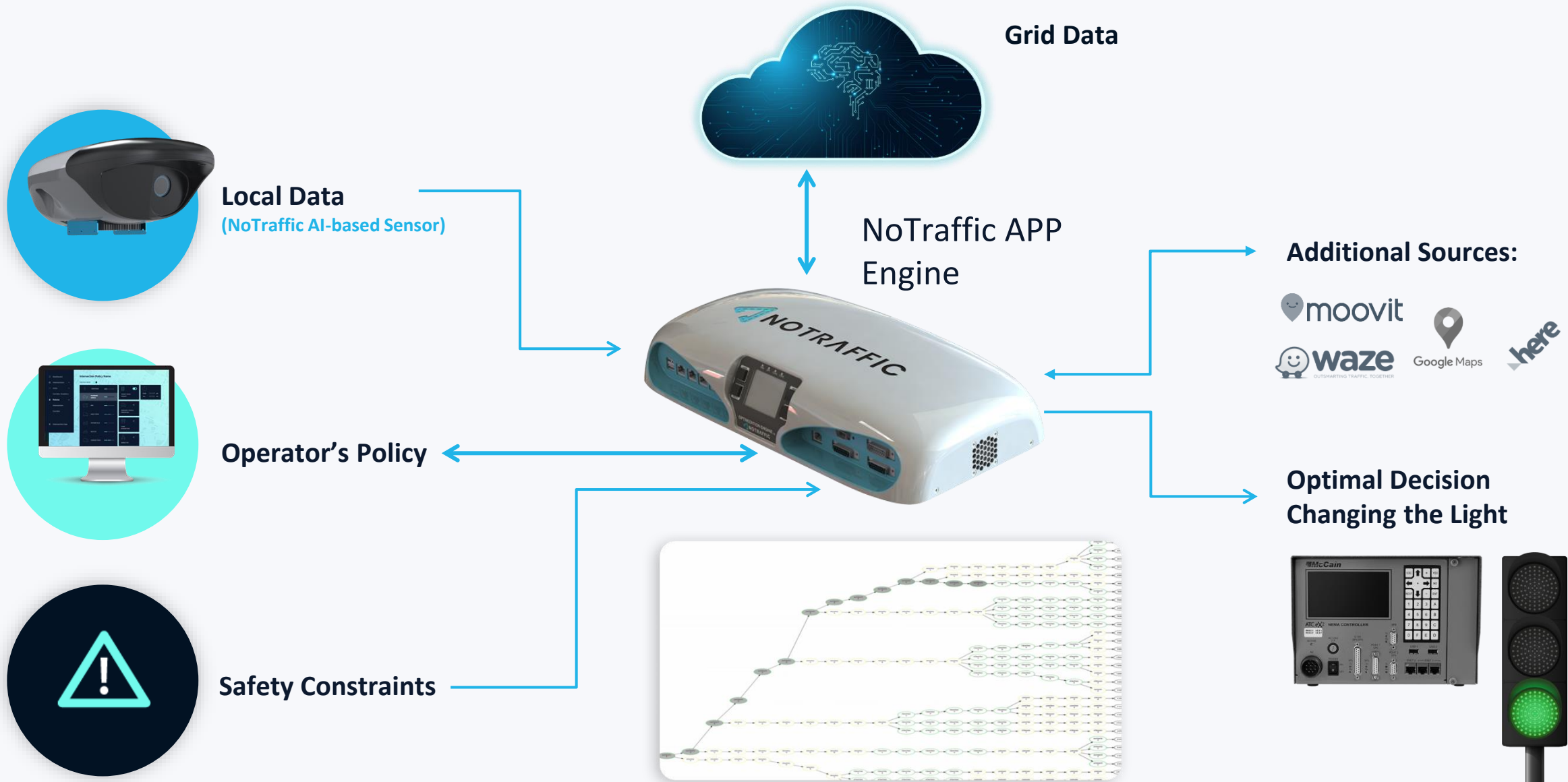


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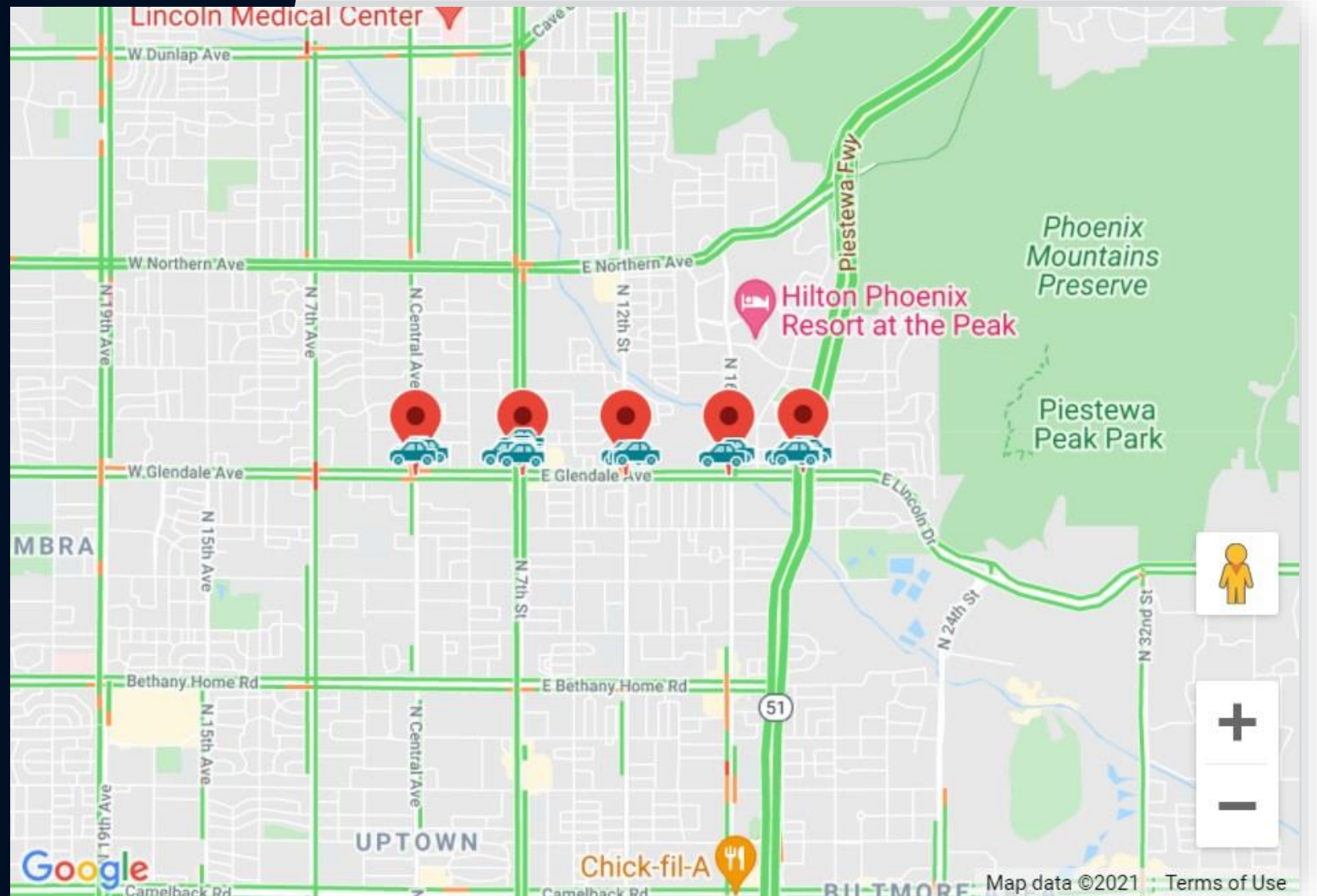


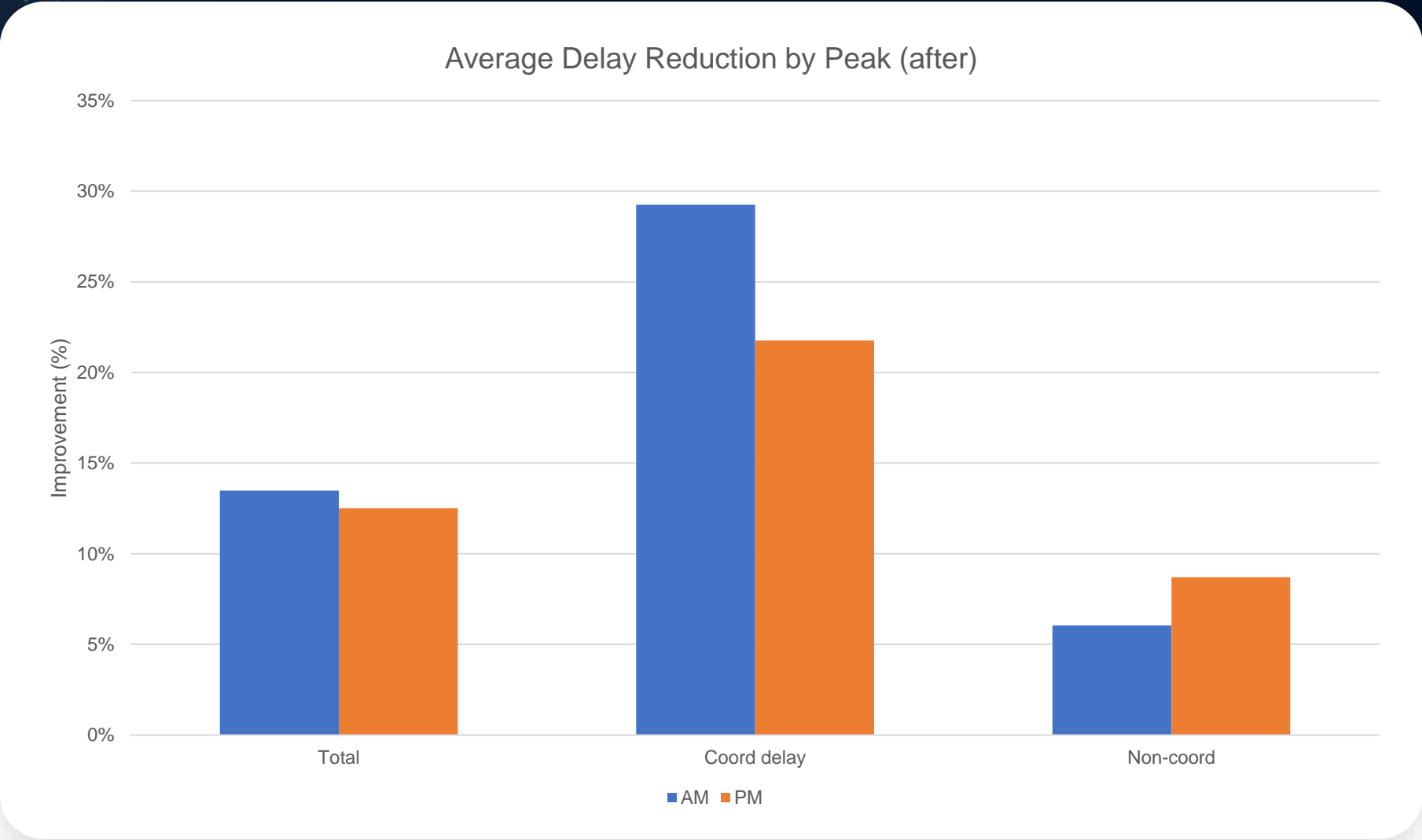


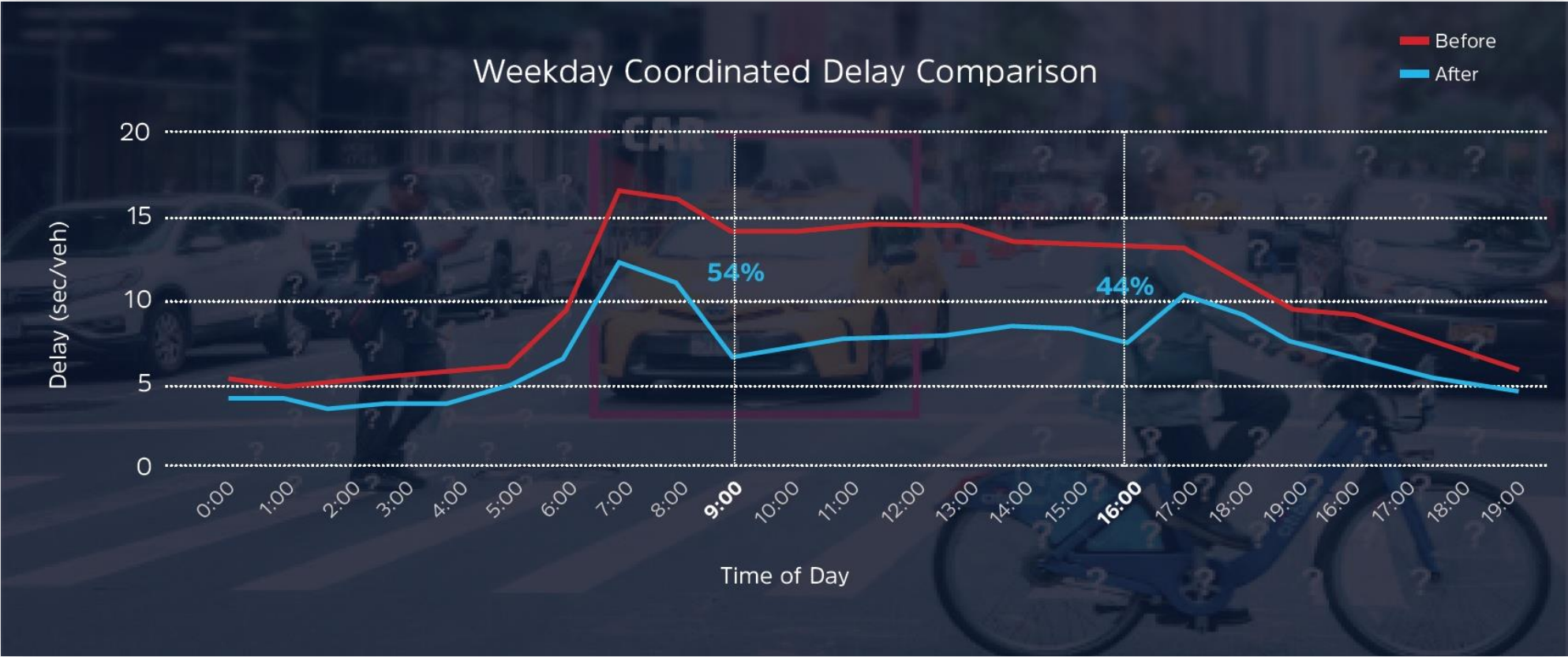
NoTraffic Optimization



Phoenix, AZ



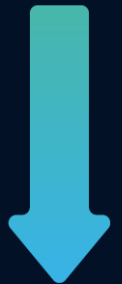




Phoenix, AZ

Summary of Glendale Ave:

- › Decreased total delay by 15%
- › Decreased control delay (most phases)
- › Decreased travel time (both EB & WB)



AM PEAK:

**29% Coordinated
Delay Decrease**



**Annualized Hours of
Delay reduction:**

60,966



**Annualized
Environmental Benefit:**

**958 Metric Tons
CO₂ Reduced**



**Annualized
Economic Benefit:**

\$1.5 Million



**Benefit to Cost
Ratio:**

72 to 1



Thank You

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