

# I Contact Us

Sunnyvale, USA Core R&D center and North American Business development Center

+01 (650) 963-9573

160 San Gabriel Dr., Sunnyvale, CA 94086, U.S.A. Frankfurt, Germany European Business Development Center

+49 6196 96988 01

Frankfurter Str. 92 65760, Eschborn, Germany Suzhou, China Core R&D and Business Development Center

+86 0512-67888711 info@cn.seyond.com

3F/4F/5F, Building 9A, Yangtze River Delta International R&D Community, Qinglonggang Road, Xiangcheng District, Suzhou

# **Smart Traffic Management**

Based on High-performance Image-grade LiDAR

# **Smart Traffic Management**

Based on High-performance Image-grade LiDAR

- In the modern cities, there are serious traffic congestion and frequent traffic accidents. Relying solely on traditional traffic sensors is insufficient to provide precise, stable, and reliable traffic flow perception data to realize the "perception-control-decision-optimization" in traffic management.
- Seyond's smart traffic management solution, based on high-performance image-grade LiDAR and the OmniVidi perception platform, offers lane-level traffic flow perception data. While recognizing road users, it provides full-time, comprehensive information about traffic participants, generating multi-dimensional structured data and accurate traffic event information. The LiDARs help to get 3D perception of the traffic, meeting the needs of traffic management departments for dynamic analysis and intelligent scheduling of urban traffic.

## Competitive Advantages



AI + Clustering Perception Algorithm



Comprehensive Recognition of All Road Users



Lane-level Traffic Flow Perception

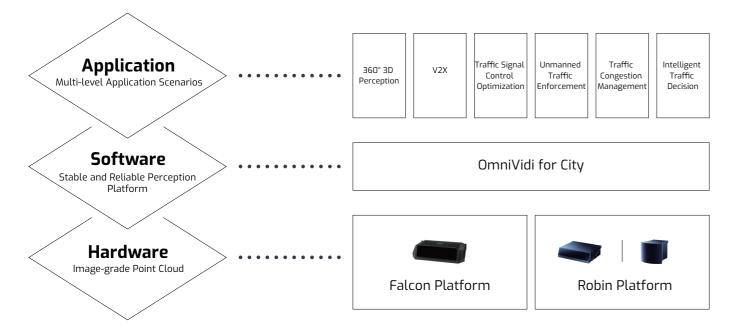


Multi-scene Traffic Event Detection



Real-time Traffic Monitoring

### Architecture



### **Application Scenarios**

#### — Vehicle-to-everything —

• Sensing all road users to get 360° 3D perception of intersections, event warning and traffic data statistics.

#### Object Detection



- Car(Light/Heavy Vehicle)
- Bicycle
- Pedestrian
- Small Object
- Road Debris
- Lane Line

#### Object Recognition



- Class/ID/Dimension
- Distance/Speed/Acceleration /Angle/Lane Number
- Longitude & Latitude

#### **B** Object Tracking



- Multi-object
- From Frame to Frame
- Unique-ID

#### — Traffic Management —

 Real-time monitoring of lane-level traffic flow and all types of traffic violations, supporting the high precision of intelligent traffic signal control and unmanned enforcement, supporting the digital upgrade of traditional traffic management.

#### ■ Congestion Identification 🔀



- Lane-level Average Speed
- Lane-level Time Headway
- Lane-level Queuing Length

#### **2** Event Detection



- Overspeed
- Driving against Traffic
- Illegal Parking
- Oversize
- Abnormal Car
- Road Debris Detection

# Traffic Situation Analysis

- Traffic Flow Analysis
- Traffic Incident Alert

### Display

