

SMATS TRAFFIC DATA MANAGEMENT

Driving Decision Making with
Smart Traffic Data



iNode™ – Ingests (raw) transportation data from multiple sources



Connected
Vehicle Probe
Data



Radar Data



Bluetooth/WiFi
Sensor based
Re-identification
data



Aggregated
Navigational &
Probe
Data

iNode cleans, processes and analyzes the raw data to support...



Traffic Operations

- Traffic Signals Management
- Congestion Detection
- Wrong-way Detection
- Work Zones Monitoring
- Traffic Calming
- Cut-through Analysis
- Safety



Transportation Planning

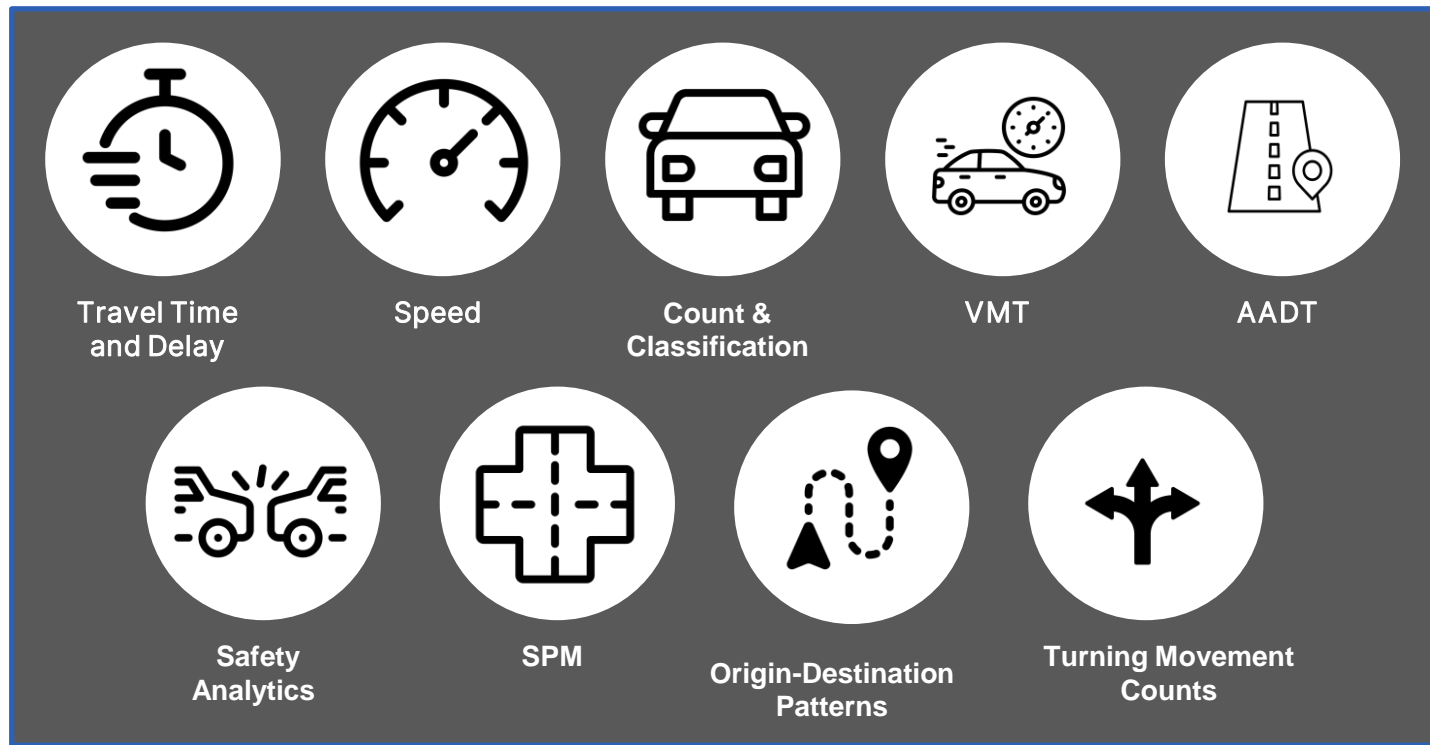
- Origin-Destination
- Corridor Study
- Complete Streets
- Lane Re-Allocation
- Count Data Collection



Traffic Engineering

- Traffic Impact Studies
- Bottleneck Detection
- Traffic Signal Retiming
- Calibrate Simulation Models
- Travel Time Reliability Data
- Signal Performance Measures

Transportation metrics generated through iNode



Integrating smartmicro radar with iNode

How does it work?

Vehicle Detection



smartmicro Radar detects
objects

Local Connection



Data Aggregator



- Edge-processing of the radar data
 - Onboard LTE Modem
- Bluetooth and WiFi MAC address detection

Internet



Real-Time and Historic Data Analytics



iNode™ ingests, processes radar
collected data and produces visual
analytics and insights

Benefits of integrating smartmicro radar with iNode

Multiple ready to use metrics

- ✓ Count and classification (smartmicro Radar)
- ✓ Travel time (TrafficXHub™)
- ✓ Origin-destination patterns and analysis (TrafficXHub™)

Edge data processing

- ✓ Data collected and stored locally for security in case of communication loss
- ✓ Edge processing minimizes data transmission between radar and iNode (<1GB/month)
- ✓ 2-way remote communication with radar via LTE, without requiring a static IP.

Easy firmware maintenance and upgrade

- ✓ Radar watchdog
- ✓ Radar remote monitoring and firmware upgrade

Automated alerts

- ✓ Real-time local triggers for queue detection, wrong-way detection, etc.
- ✓ Email alerts on data triggers

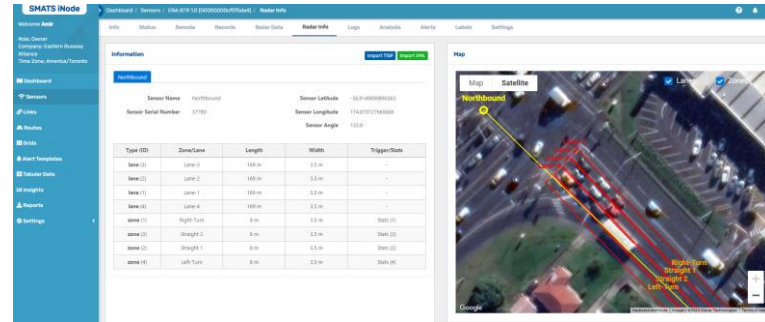
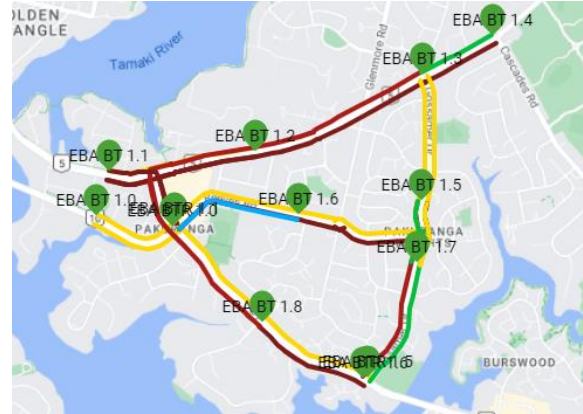
Use case 1

Country

- ✓ New Zealand
- ✓ 24 locations in 4 Cities

Use cases

- ✓ Count and Classification
- ✓ Travel Time
- ✓ Origin-Destination
- ✓ Queue Measurement



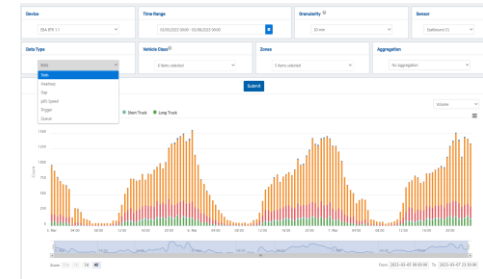
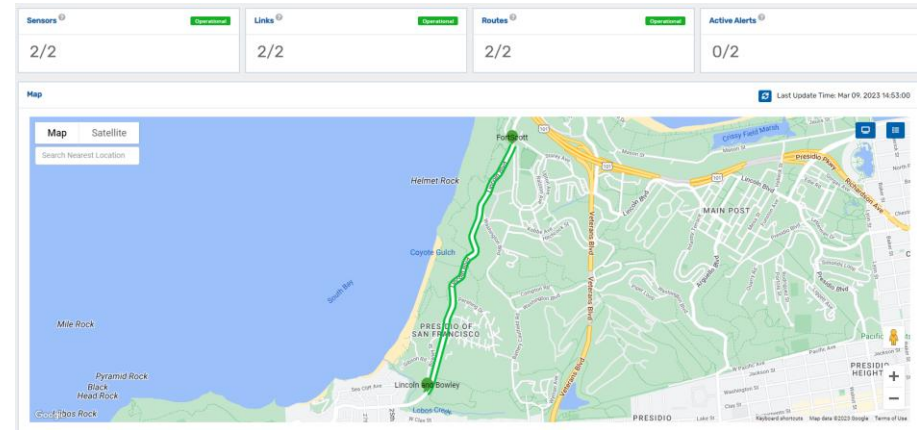
Use case 2

Country

- ✓ US (San Francisco)
- ✓ Presidio Trust

Use cases

- ✓ Wrong-way detection
- ✓ Count and classification
- ✓ Stop-sign running violations
- ✓ Origin-Destination



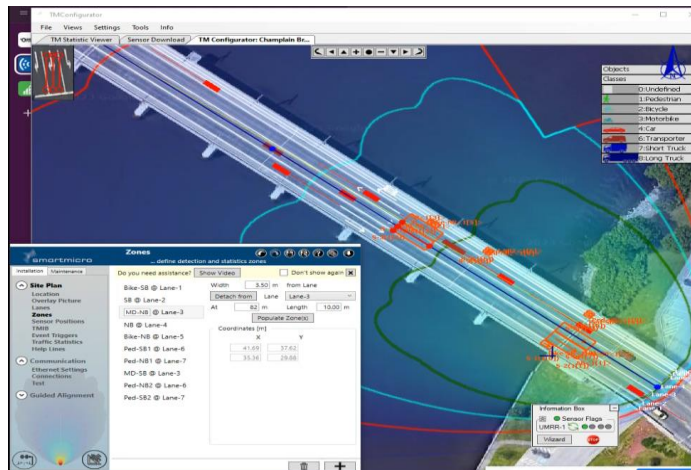
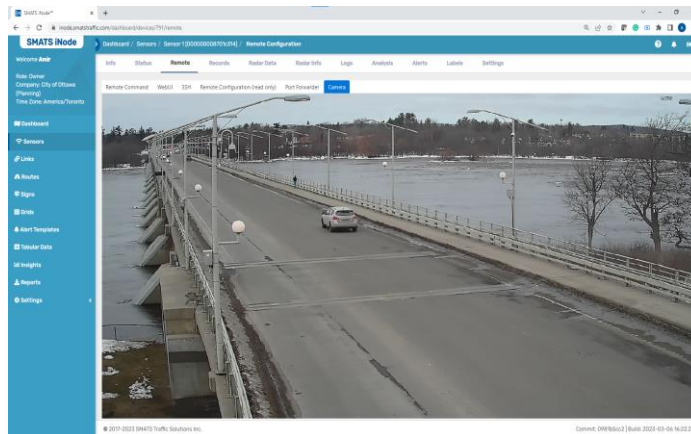
Use case 3

Country

- ✓ Canada
- ✓ City of Ottawa

Use cases

- ✓ Inter-provincial Multi-Modal Count and Classification



Why SMATS?

- ✓ **Full data collection capabilities** for all your traffic operations, planning and engineering needs
- ✓ **Powerful + User-friendly Analytics** platform (iNode) – with data fusion capabilities and deep end-to-end analytics
- ✓ **Lower cost, and flexible contract terms** – we make it work for your projects and budgets

THANK YOU.

Questions? Get in touch:



Phone

Phone: (613) 417 - 0309

Toll Free: (888) 441 - 5666

Fax: (613) 701 - 4142



Website

www.smatstraffic.com



Email

General: info@smats.ca

Sales: sales@smats.ca

Technical Support: support@smats.ca