

Connected Transit Vehicles

Fortran Traffic Systems Limited

02.05.2020

FORTRAN



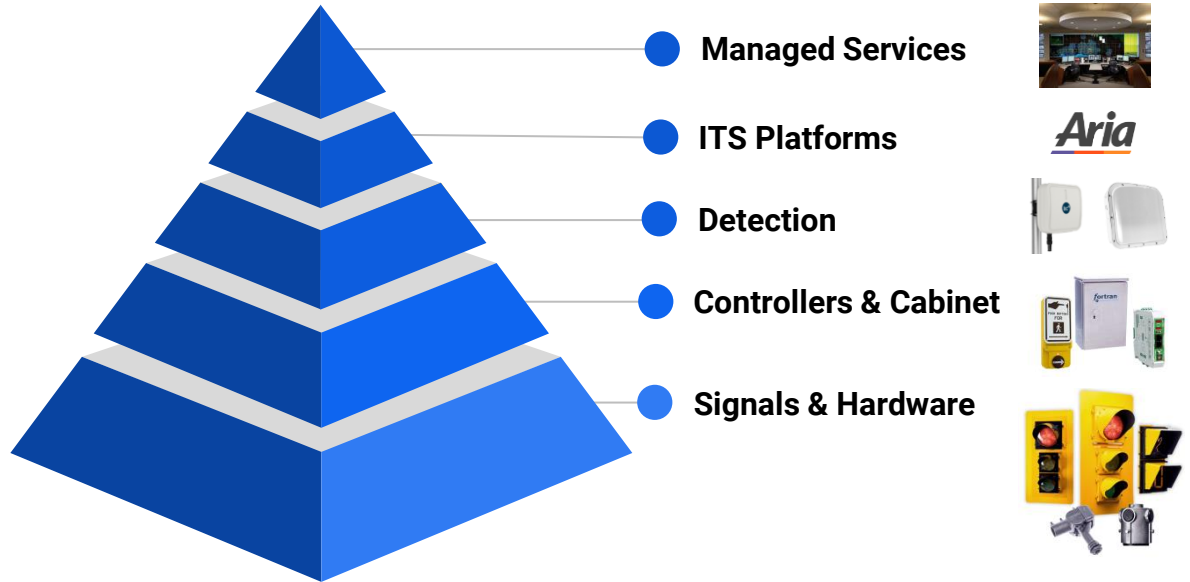
FORTRAN

Fortran Traffic System Limited

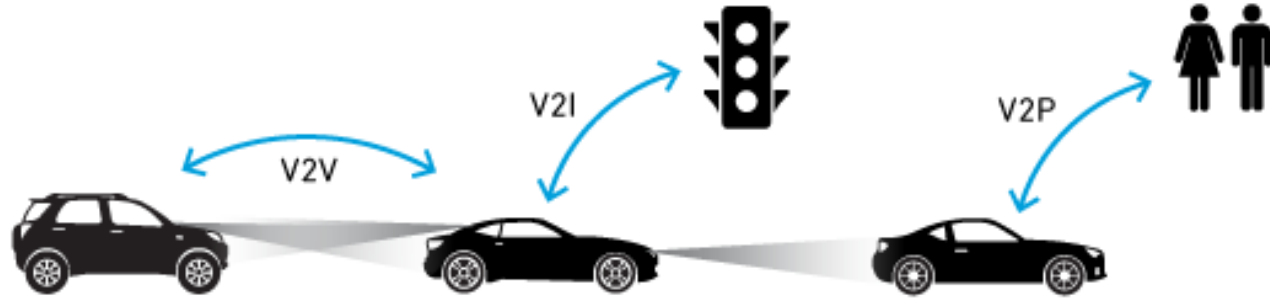
- Founded 1979 (40 years)
- HQ Based in Toronto, ON

Focus Areas:

- Smart Mobility Solutions
- Connected and Automated Vehicles (CAV) V2I Platforms



V2X Technology Overview



11-28-2016 reform mbs cash 2016-12-14 10:37:16.781 SPEED 0 MPH 37.785553N 122.401108W

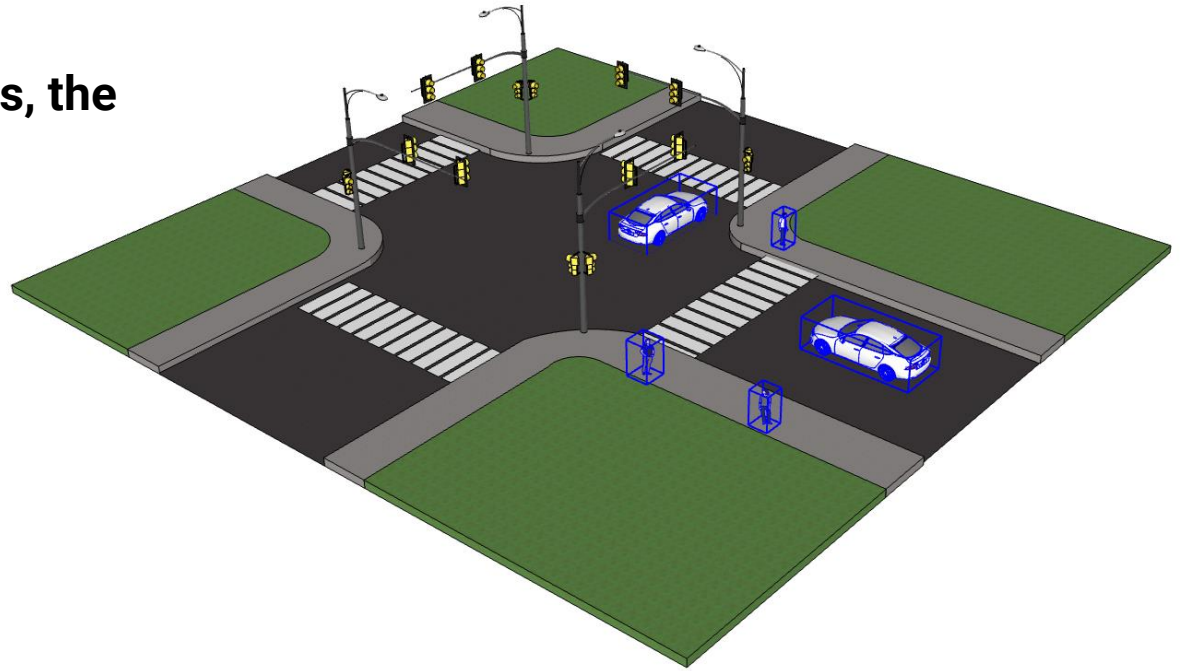


V2I Benefits

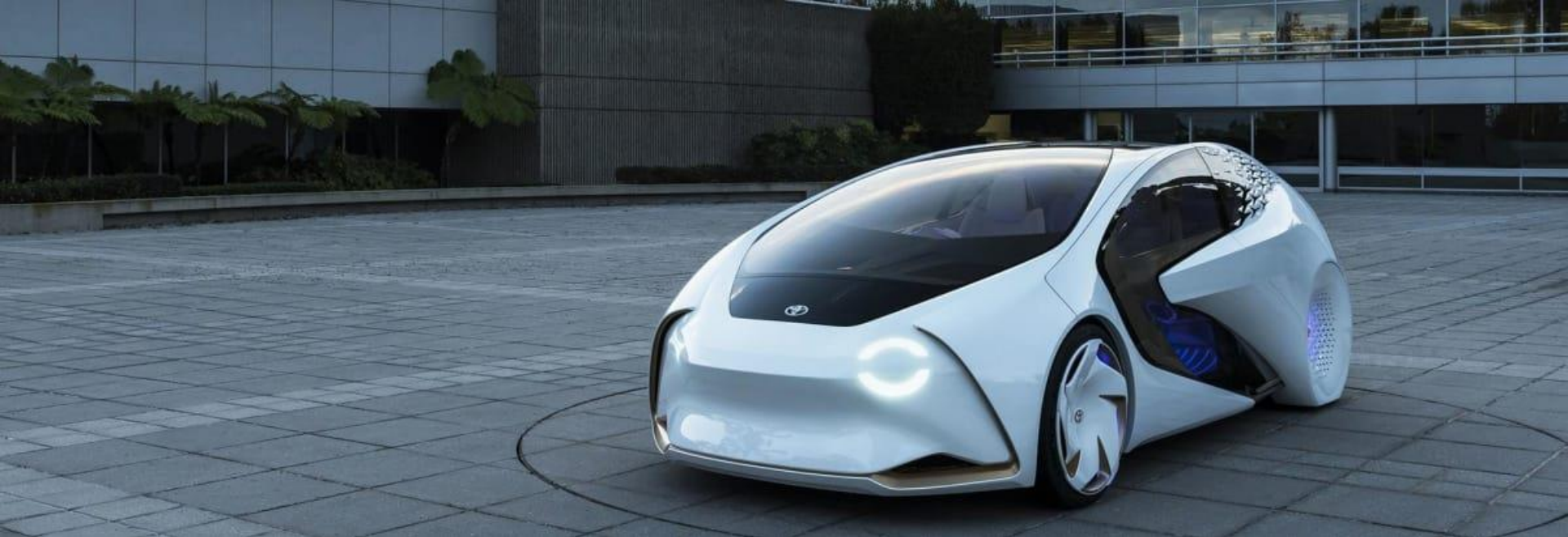
- **Safety**
- **Efficiency**
 - Fuel Economy improvement
 - 7% for human-driven cars
 - 22% for self-driving cars
- **Rich & Granular Traffic Data**

Our Vision

We want to make vehicles, the sensors on the road.



Connected Vehicle **Signal Priority**

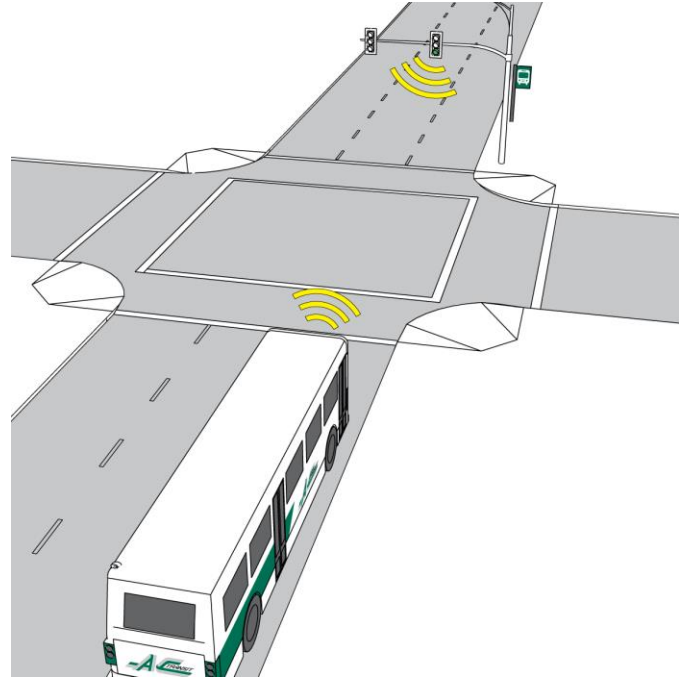


Signal Priority Benefits

Transit Signal Priority Benefits:

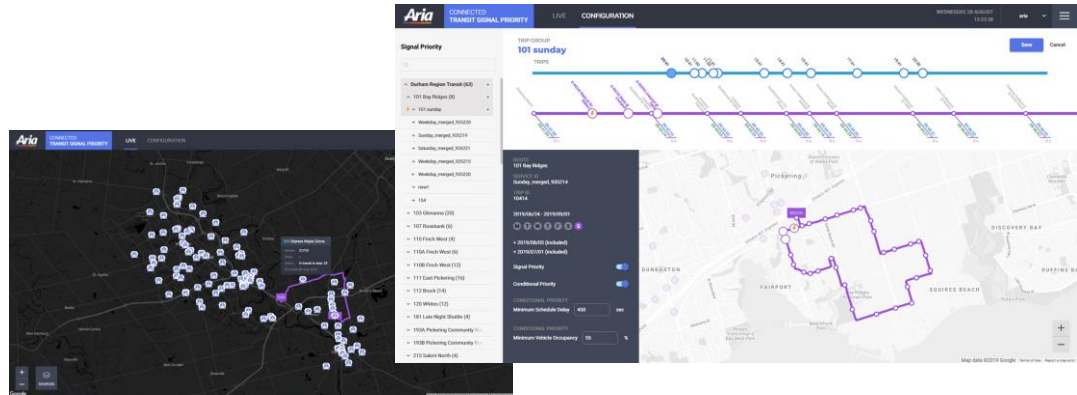
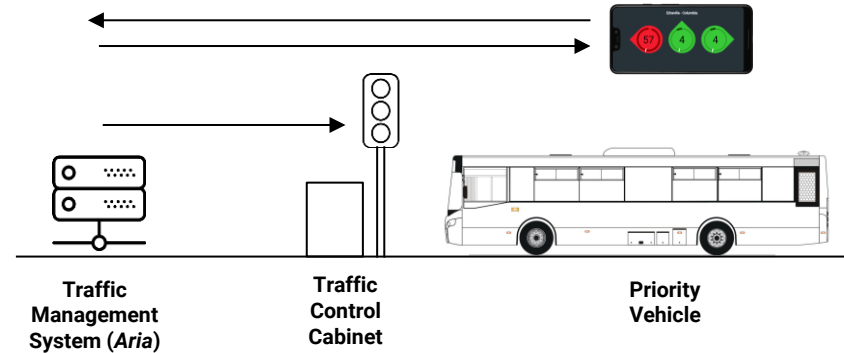
- Reduction of bus travel times (**10%-25%**)
- Increased schedule reliability
- Increase in ridership and customer satisfaction
- Reduction in operating costs
- Increased return on investment
- Lesser fuel consumption
- Lesser Greenhouse Gas Emissions
- ...

Emergency Vehicle Preemption (EVP) reduces intersection crash rates by up to **70%** and improve the emergency response times by up to **25%**.



ARIA C-TSP

- Significant **decrease in capital** and running **maintenance** costs
- Easy **citywide expansion**
- **Holistic analytics** both on transit and intersection performance.
- **Controller agnostic** solution
- Additional **mobility improvements** due to **communication of signal timing** with the driver



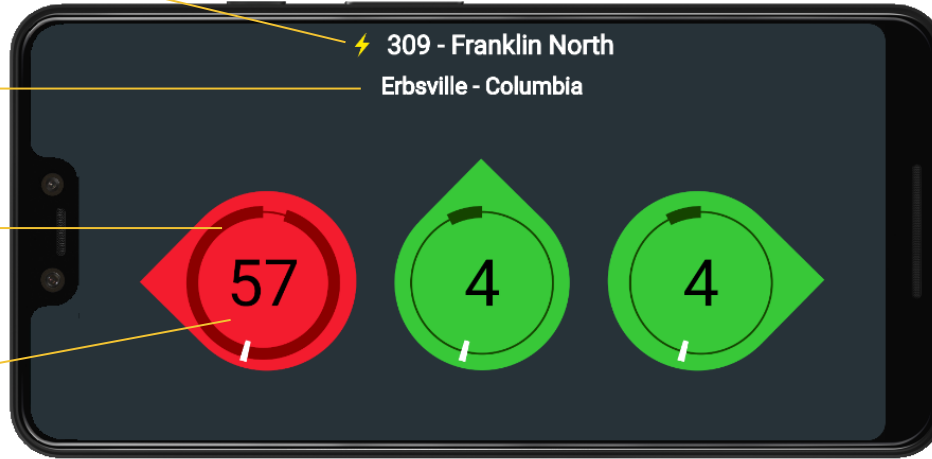


Transit Signal
Priority (TSP)

Approaching
Intersection

Remaining
Time

Arrival Time



Open Source

Open Protocols
(Based on SAE J2735)

Support Android & iOS



Pilot Deployment



Outcomes

- Results demonstrated average of **17% travel time reduction** while crossing the intersection with minimal impact on crossing traffic.
- **Dramatic reduction in deployment time** (2 Weeks)
- **Dramatic reduction in Cost**
- **Reduction in GHG Emissions**

We are looking for partners.

