

# Transforming Public Transit With On-Demand Service

## WHO WE ARE:

Pantonium is a Toronto-based, smart cities technology company, focused on the application of on-demand transit (ODT) solutions to enhance the efficiency of public transit.

## THE PANTONIUM DIFFERENCE:

- Automated fleet routing
- Large, single transit zones
- No bus transfers
- Co-mingle paratransit and conventional riders
- Manage fleets with vehicles of various sizes
- Integrate ODT service with fixed routes
- Integrate with third-party transit system schedules
- Optimized electric bus charging

## THE POWER OF OUR TECHNOLOGY:

- Maintain or expand service area, with existing or fewer vehicles
- Increased rides per service hour, through:
  - Reduced ride times
  - Reduced wait times
  - Reduced operating costs

## PANTONIUM'S GLOBAL ROUTING OPTIMIZATION ALGORITHM:

The Real-time Global Routing Optimization Algorithm is our core innovation. It addresses rider demand and determines the best way to route all the transit vehicles in a city.

### OTHER VENDORS

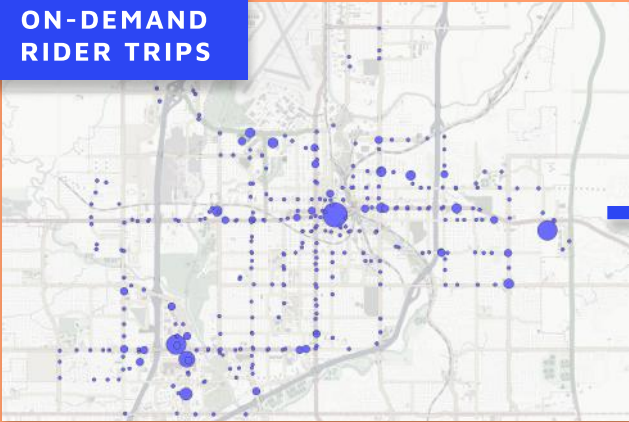


### PANTONIUM'S ODT SOLUTION

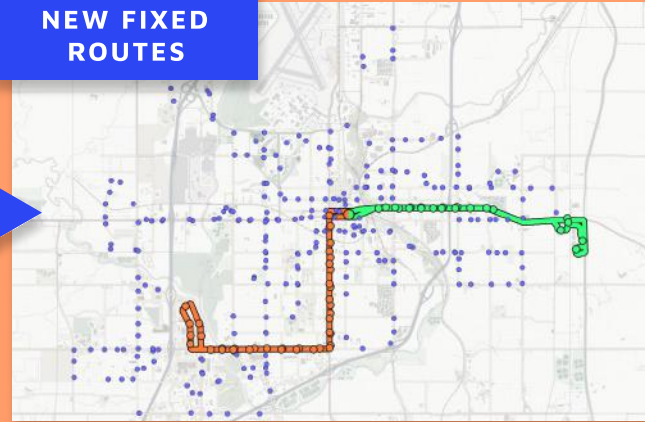


## DESIGN A BETTER TRANSIT SYSTEM

### ON-DEMAND RIDER TRIPS



### NEW FIXED ROUTES



ODT service collects origin and destination data that tells us exactly where and when people are using transit.

We then design fixed routes to operate where they would be most efficient and keep the rest of the city covered with on-demand service.

This hybrid system delivers the best rider experience and helps transit agencies reduce operating costs.

## IMPACT OF PANTONIUM'S ALGORITHM:

Our technology is helping transit agencies do more with less.

With ODT, you can maximize the use of your vehicles, cut mileage, and reduce operating costs, all while serving more riders.

By attracting more riders to transit, cities also benefit from better livability, less traffic congestion, and less pollution.

In comparison to conventional fixed-route transit, Pantonium's ODT service delivers substantial environmental benefits.

An independent consulting study by Naturebank showed that a mid-sized city converting 10% of their service to ODT would see a 1 kilotonne reduction in GHG emissions per year.

## ON-DEMAND TRANSIT IMPACT

### Belleville, ON

**300%** Ridership increase

**462%** Service area increase

### Stratford, ON

**\$300K** Saved in fuel costs from just weekend service

### Sioux Falls, SD

**100%** of trips are transfer-free  
\*pre-ODT, 21% of trips transfer-free

**93%** of trips took < 30 mins  
\*pre-ODT, 45% of trips took > 30 mins