



On-Demand Public Transit

Tomorrow's transportation, today

How Belleville, Ontario achieved extraordinary results
from an on-demand bus service



Every
transit
agency
has a
**service
balance
problem.**





The balance
problem means
**Empty buses
driving around
in circles.**

Traditional transit in low density
areas is expensive & inefficient

Solution

On-Demand Buses.

Take buses off fixed routes, with on-demand transit. Pantonium provides all the tools for agencies to provide optimized, autonomous on-demand service.

Achieve both ridership & coverage.



How it works

1

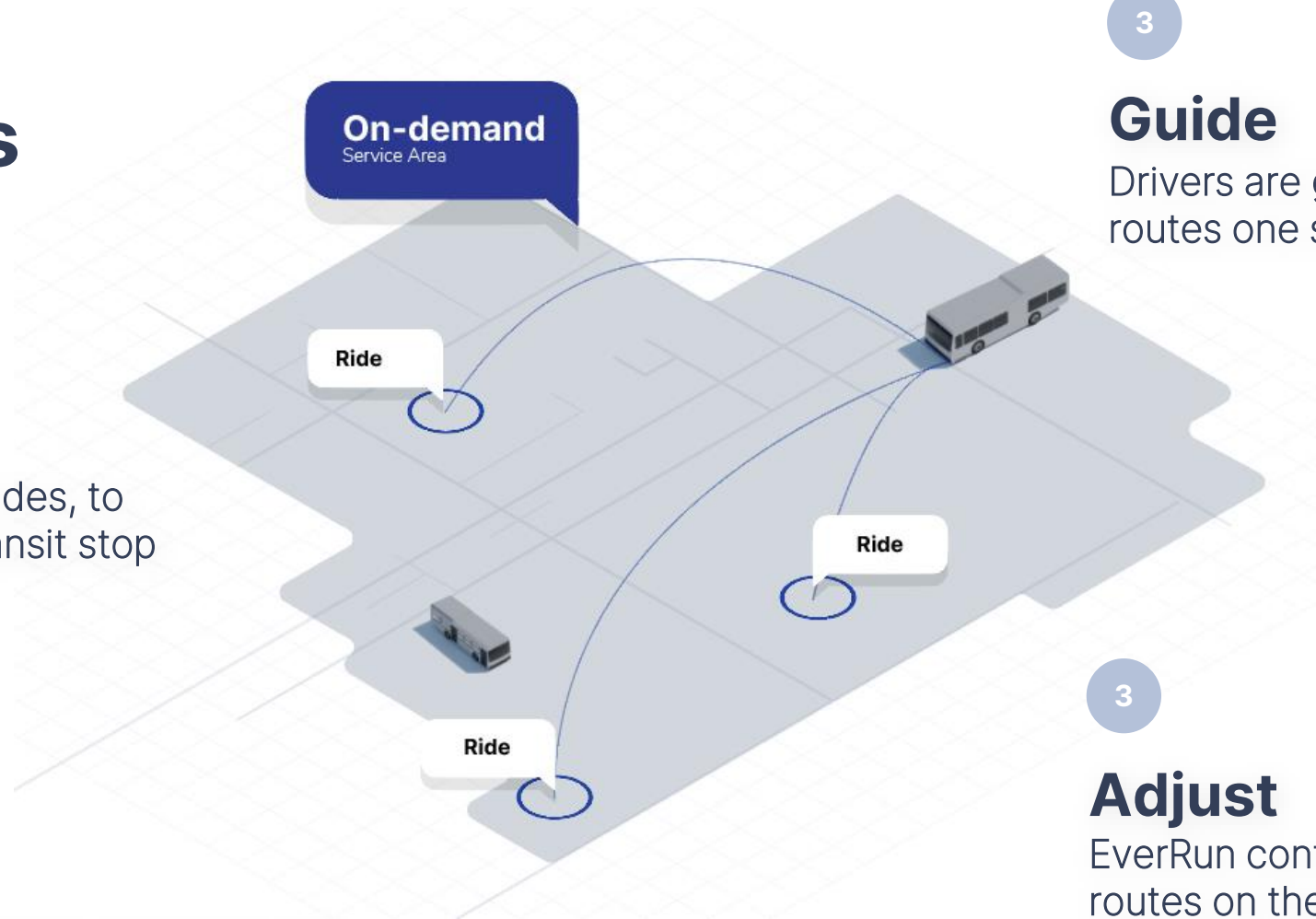
Request

Riders request rides, to and from any transit stop in their area

2

Optimize

System continuously optimizes and re-optimizes **entire fleet**, in real-time



3

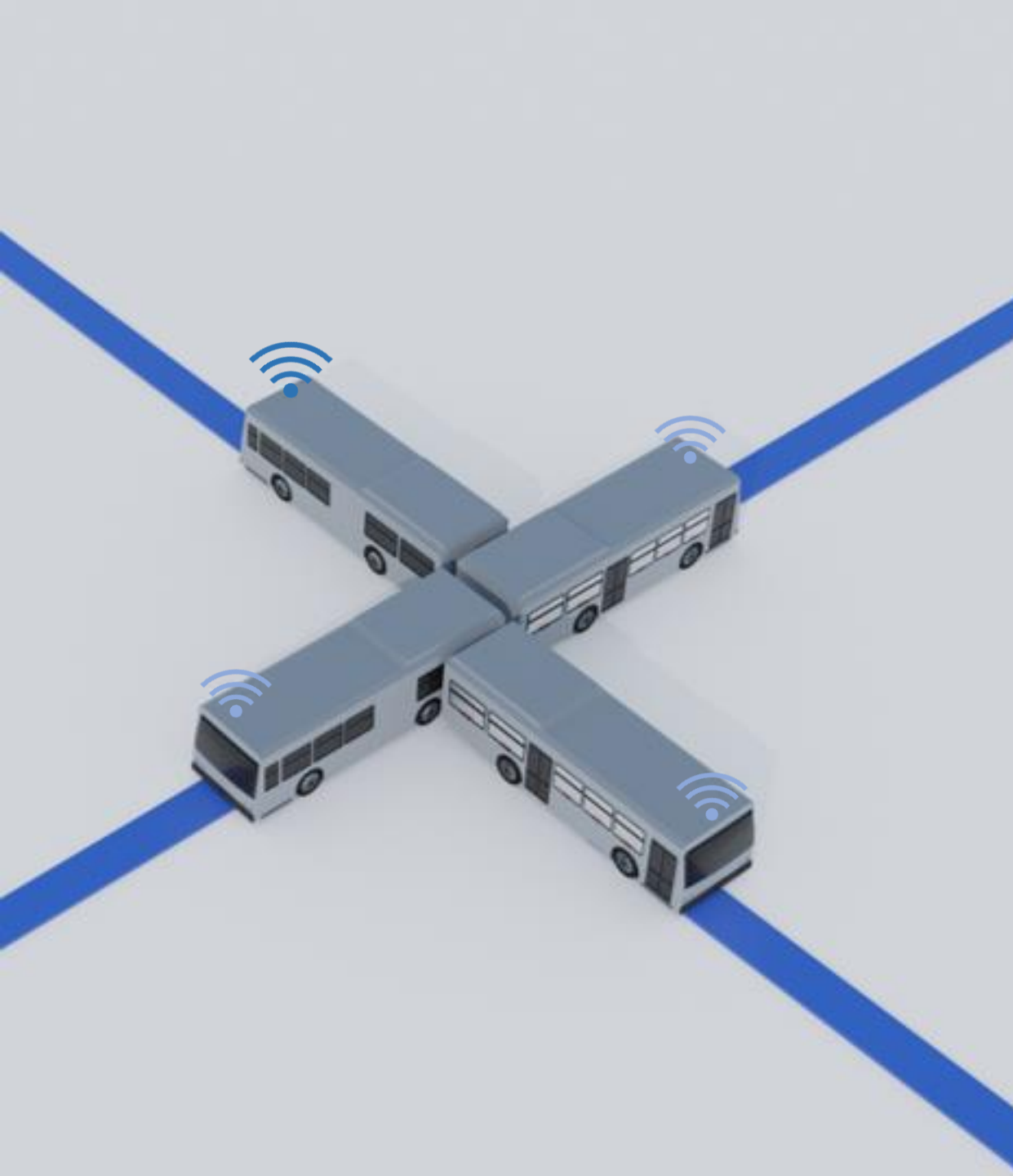
Guide

Drivers are guided through optimal routes one stop at a time

3

Adjust

EverRun continuously re-optimizes routes on the fly to new events, delays, and more

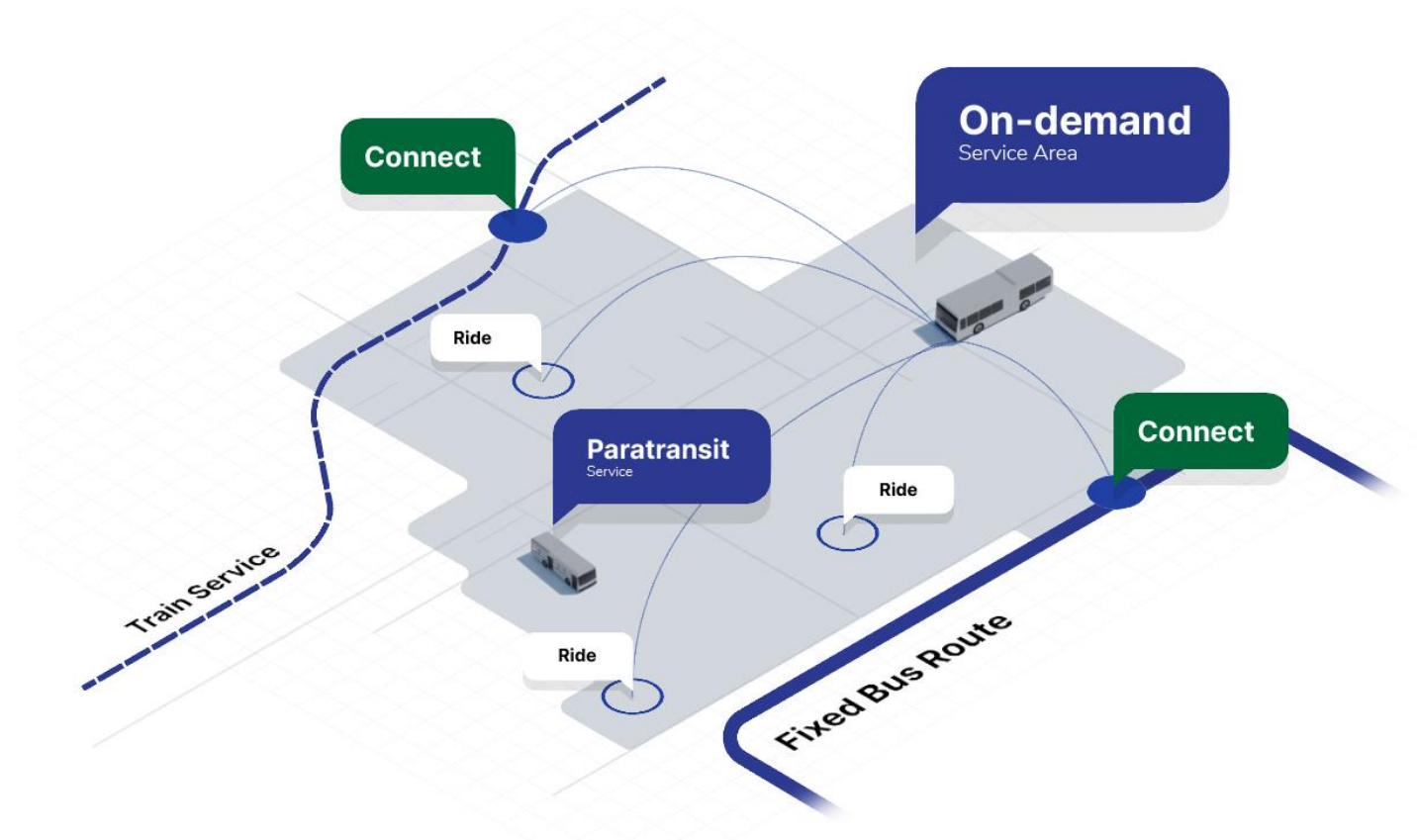


Our difference is
**real-time, global fleet
optimization.**

If we have just 5 vehicles, and we need to
pickup 10 people, there are **37 quadrillion**
different ways we can do it.

Not microtransit, **Macrotransit.**

- Full sized buses
- No new assets/infrastructure required
- Integrate with fixed routes
- Reduced transfers and minimal if any zones limiting bus journeys
- Continuous global optimization
- Coordinate with other services (i.e, metro, train, regional bus)
- Can combine paratransit and regular on-demand on one platform



Other On-Demand **Approaches**



**Ride-hailing
Services**

Uber 



**On-Demand
Microtransit**

  TransLōc®



**On-Demand
Macrotransit**

 Pantonium

Other On-Demand Microtransit Pilot Performance

Microtransit & Demand Response

Transit Agency	Contract/ In House	Cost/Vehicle Service Hour	Rides/ Hour	Cost/ Trip
AC Transit	In house	\$214	3	\$71
Cherriots	In house	\$65	3.5	\$18.57
Dallas ART	Contracted	\$46	3.5	\$13.14
Greater Dayton RTA	Both	RTA pays Lyft/Taxi	NA	\$13
Denver RTD	Contracted	\$83	3.8	\$21.84
HART	Contracted	Pay by trip	3.5	\$10
Houston Metro	In house	\$75	2.4	\$31.25
Kitsap Transit	In house	\$130.72	3.66	\$35.68
LYNX	Contracted	\$41.47	3.3	\$12.60
MST	Contracted	\$54.18	4.03	\$13.44
NVTA	Contracted	\$44.48	2.6	\$17.00
NCTD	Contracted	\$97	2.7	\$36
TDU	Contracted	\$34.69	4.7	\$7.34

Highest Rides/Hour: 4.7

Lowest Rides/Hour: 2.4



Belleville, ON **Results**

30

Passengers/Service Hour

300%

Increased Ridership

70%

Increased Service Area

30%

Reduced Mileage/Passenger

Why is Belleville's
On-Demand **Successful?**

Increased Demand with **New Transit Ridership.**

Providing convenience, large service area (70% larger)

Minimizing or eliminating transfers and zones





Reduced **Costs.**

Use existing infrastructure, vehicles and drivers

Stop based, not door to door

Using global optimization enabling a higher service capacity

Reduced cost per rider kilometer

Reduced wear and tear on vehicles and roads



Public Transit for **Public Good.**

Access

Employment, school, healthcare,
social activities and more

Reduce

Congestion, parking needs, road
maintenance

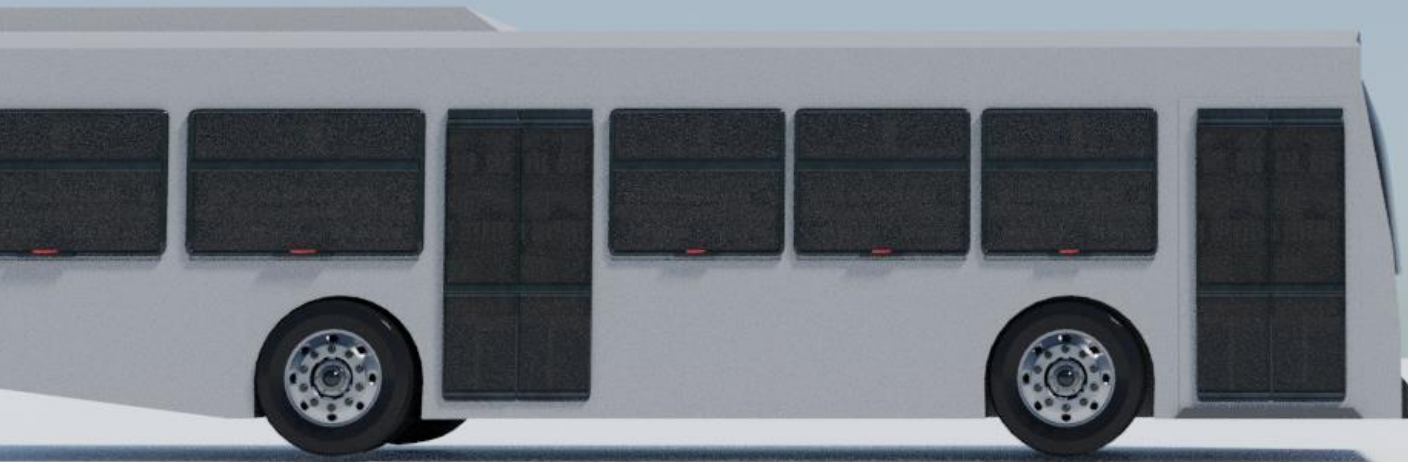
103 Kilotons

Approx. carbon reduction for small
town switching to on-demand

\$9,641

Saved annually by using transit
per rider

Thank you



Remi Desa