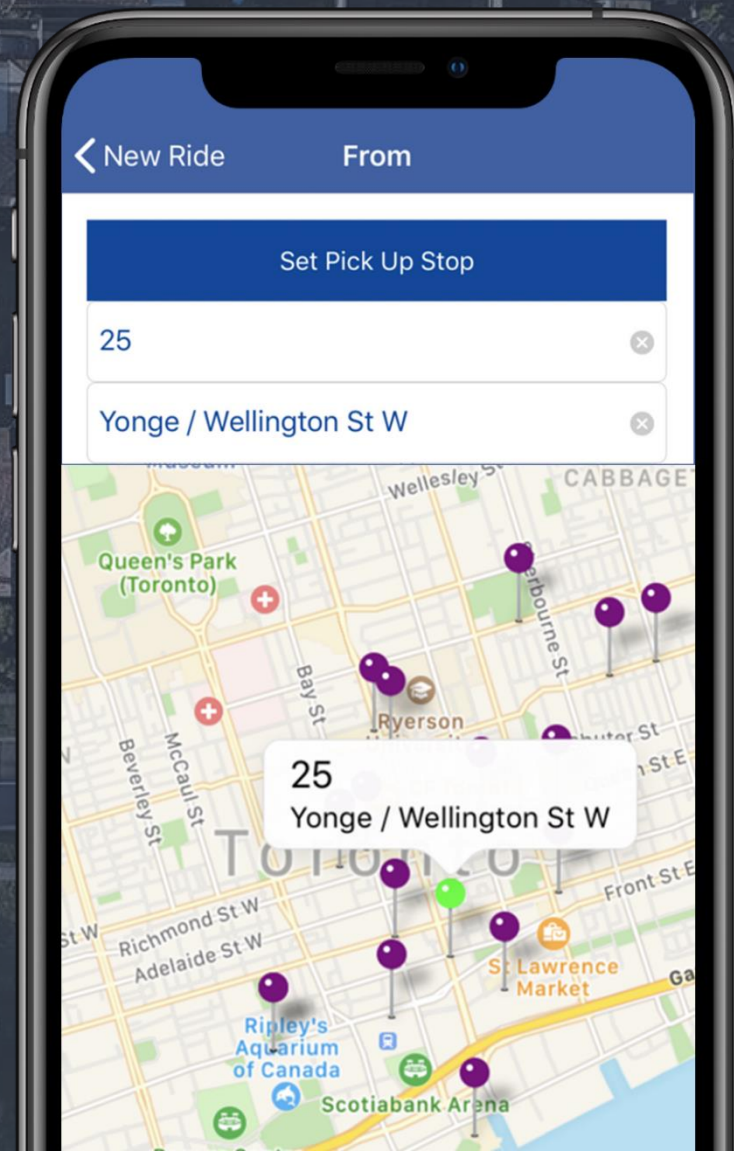




Pantonium

EverRun

Taking Transit in a New
Direction



Problem

Hard to reach areas and times for transit

<5%

North American

Commuters use transit

>50%

Industry Located in Suburbs

Little or no access to public transit

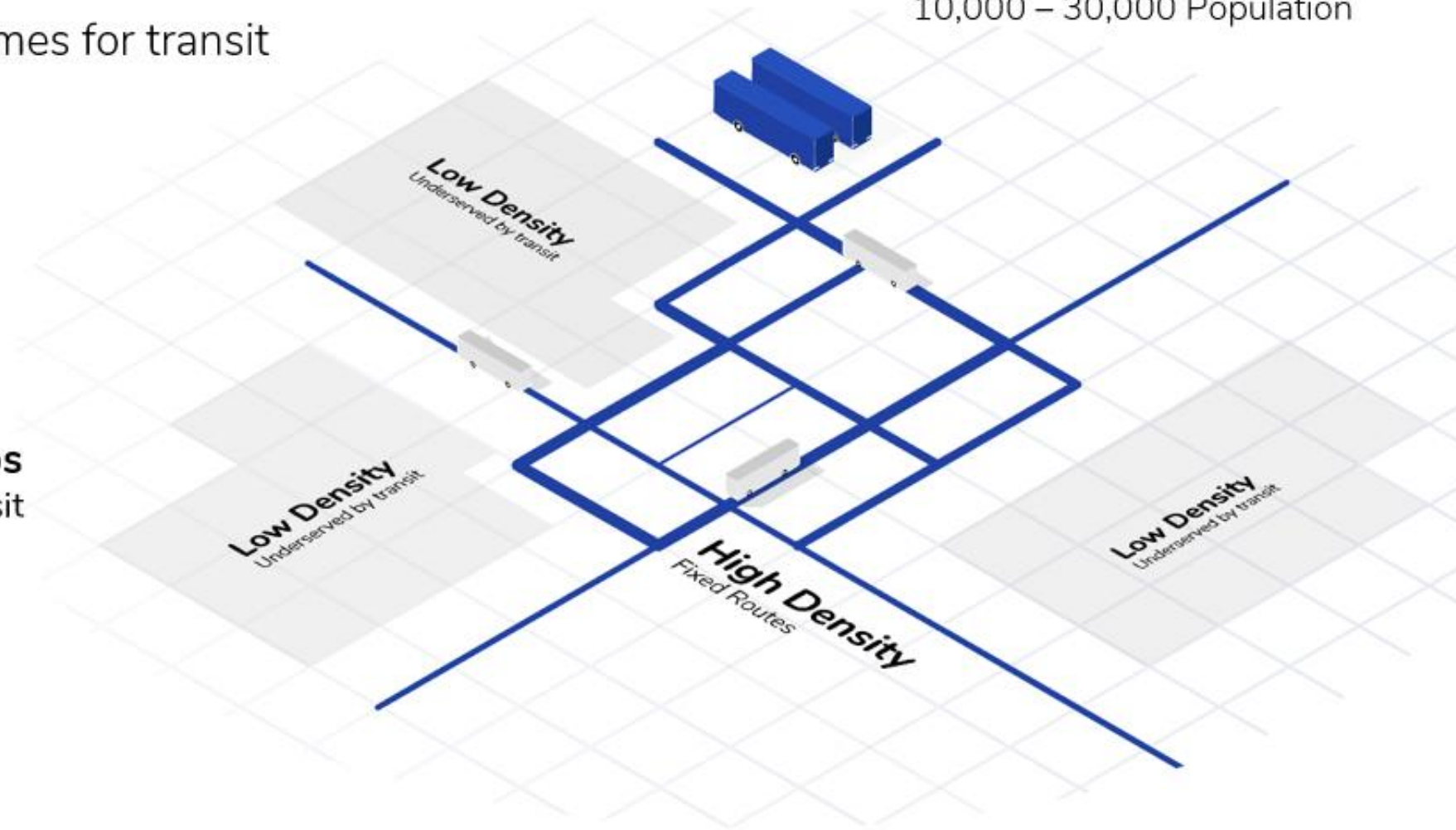
~70%

Commuters Drive Alone

Is there a better way to move millions of people everyday?

Small Town

10,000 – 30,000 Population





Solution:

On-Demand Public Transit

Transit Performance Comparison

Agency & Model	Total Cost Per Ride	Rides per Service Revenue Hour
Saskatoon, Saskatchewan: Fixed Route	\$3.01 (CAD)	32
Innisfil, Ontario: Uber	\$7-\$44 (CAD)	1.5
Arlington, Texas: Via	\$21 (USD)	6
Cochrane, Alberta: PWT/Tripshot	\$13 (CAD)* Projection	6* Projection
Belleville, Ontario: Pantonium	\$4.60 (CAD)	30

Source: Microtransit or General Public Demand Response Transit Services: State of the Practice (2019)

CUTA Canadian Transit Fact Book - 2016 Operating Data

A faint, stylized map of Belleville, Ontario, serves as the background for the left side of the slide. It shows a grid of streets and a river winding through the area. A blue speech bubble points to a specific location on the map.

Belleville: Pilot Results

Belleville, ON

300%

Increased Ridership

30

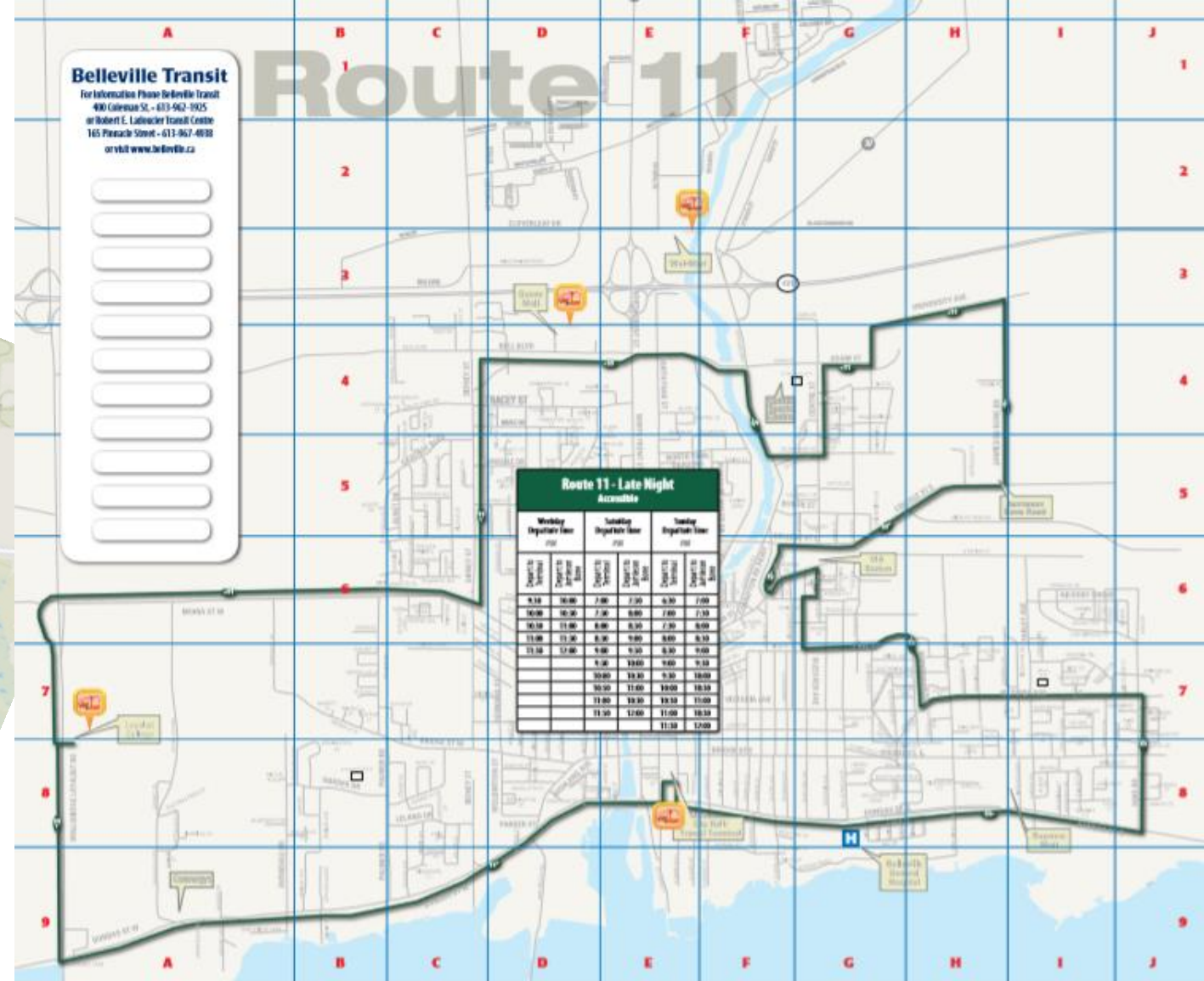
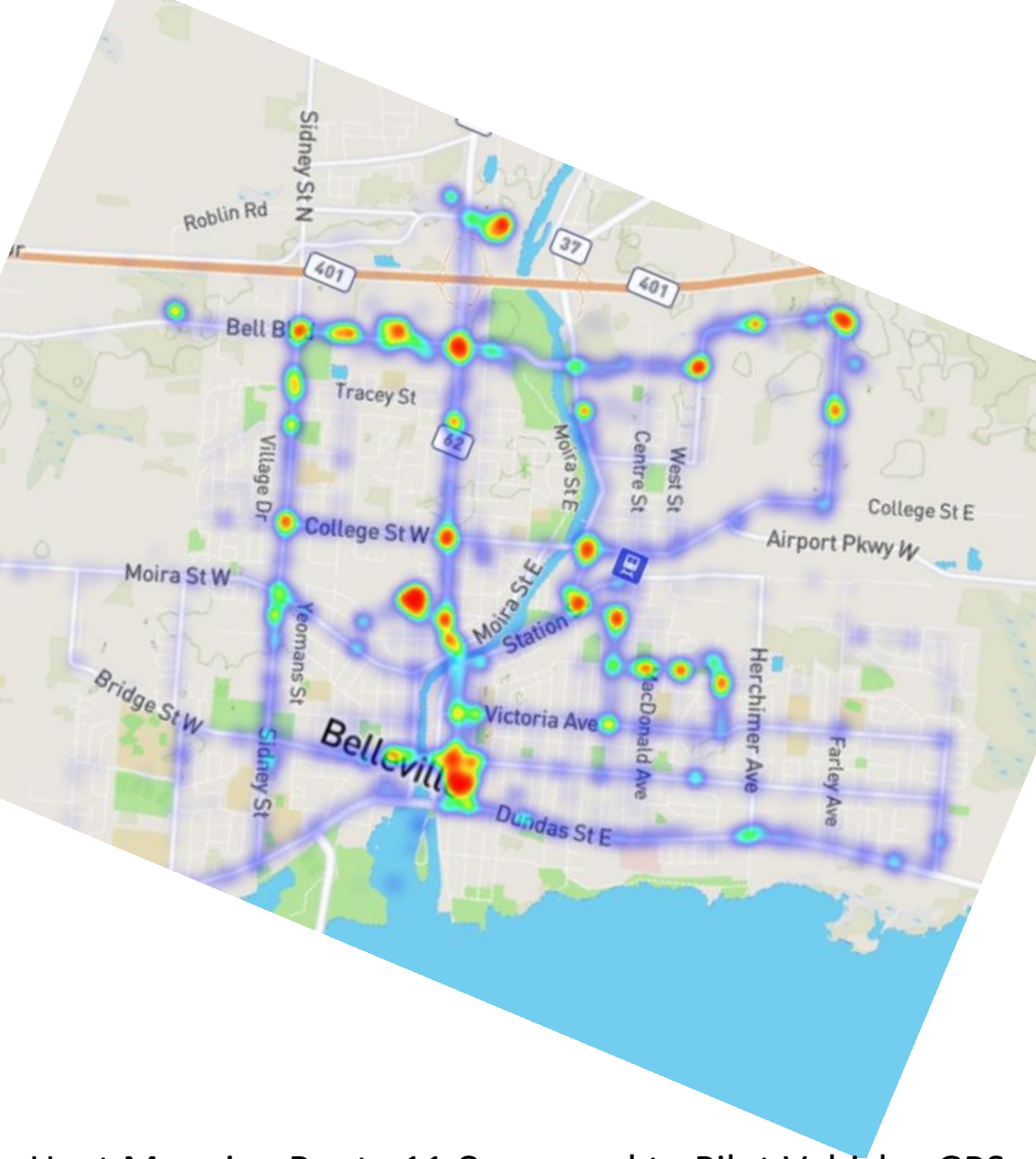
Passengers/Vehicle Service

70%

Increased Service Area

30%

Decreased Vehicle Miles



Heat Mapping Route 11 Compared to Pilot Vehicles GPS; intensity based on total elapsed time at location over 6 weeks

EverRun Overview

EverRun is a full suite of web and mobile applications, all centered around one autonomous optimization engine – built to enable transit agencies to deploy a transportation network.

Rider

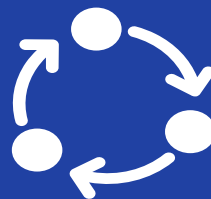
Rider
Web Portal



Rider
Android App



Rider
iOS App



EverRun
Optimization
Engine

Agency

Dispatch
Web Portal



Driver
Android App



EverRun: How it works

Request

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

Optimize

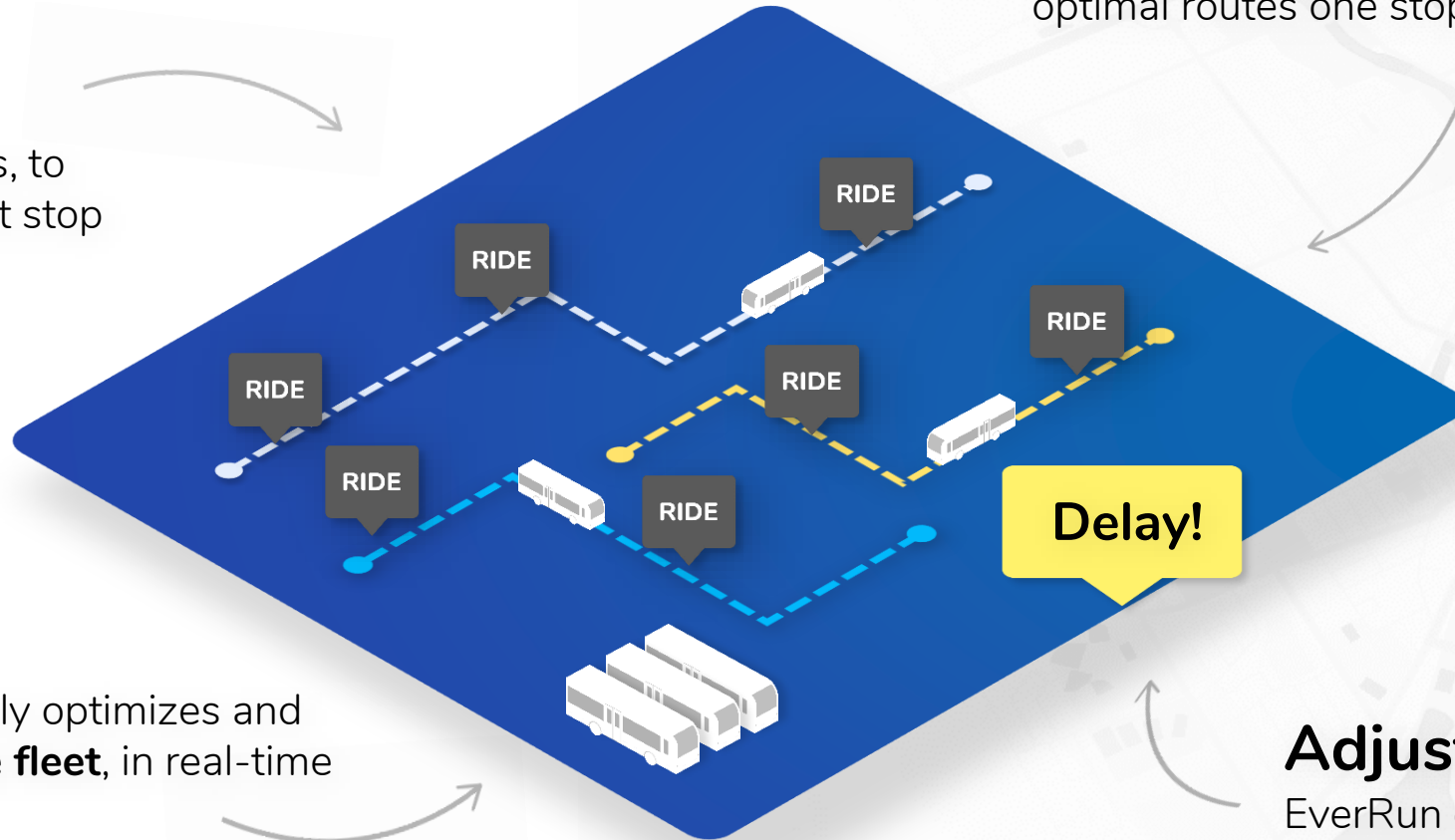
System continuously optimizes and re-optimizes **entire fleet**, in real-time

Guide

Drivers are guided through optimal routes one stop at a time.



Adjust

EverRun continuously re-optimizes routes on the fly.



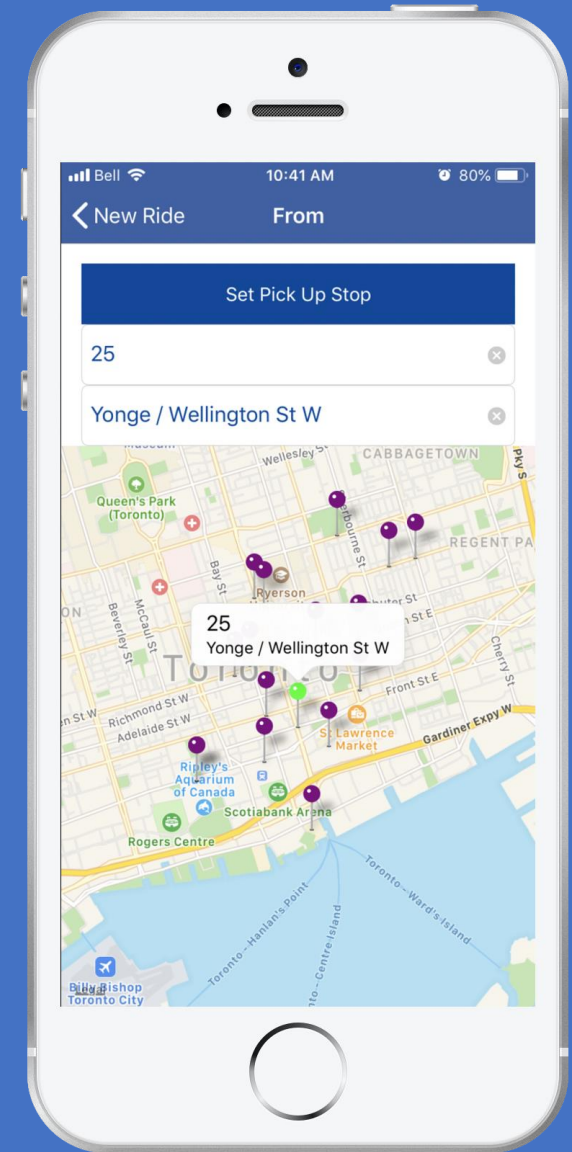
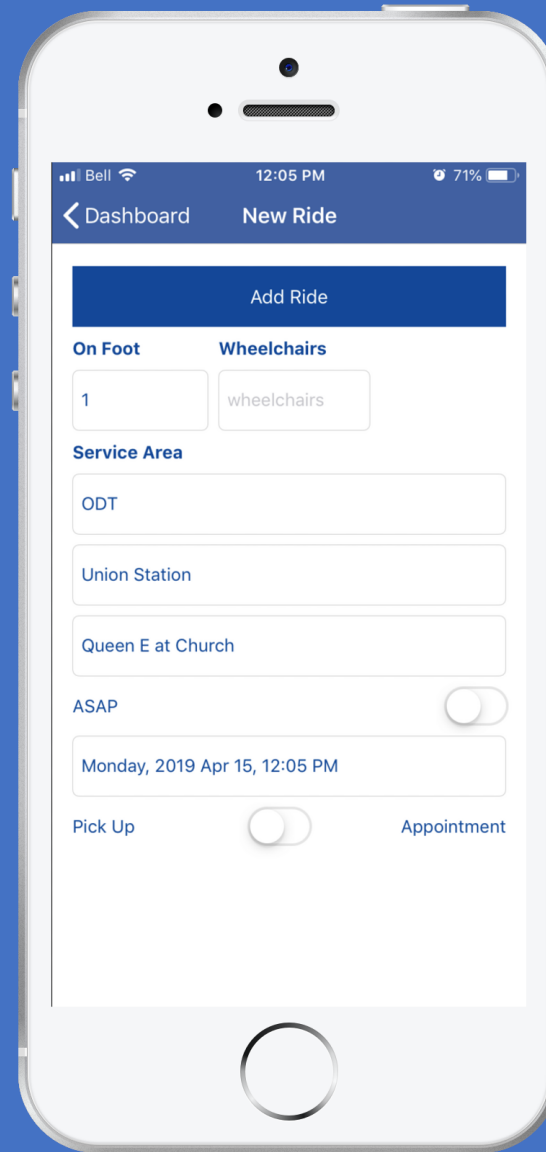
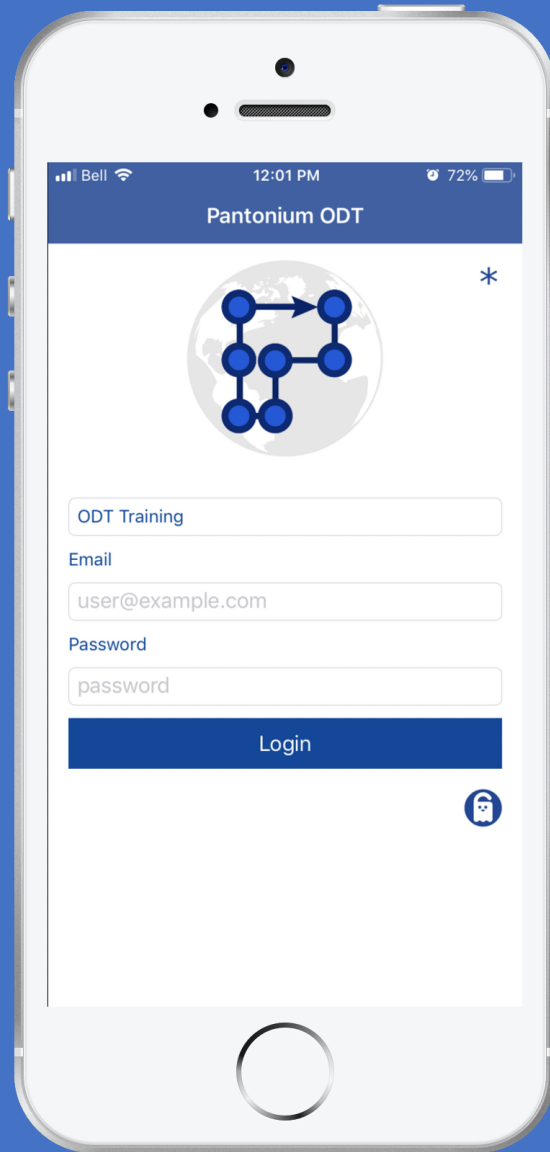
EverRun uses an algorithm to intelligently search subsets of the 37 quadrillion solutions, to find a solution that is significantly better than any human could – **over, and over, and over again.**

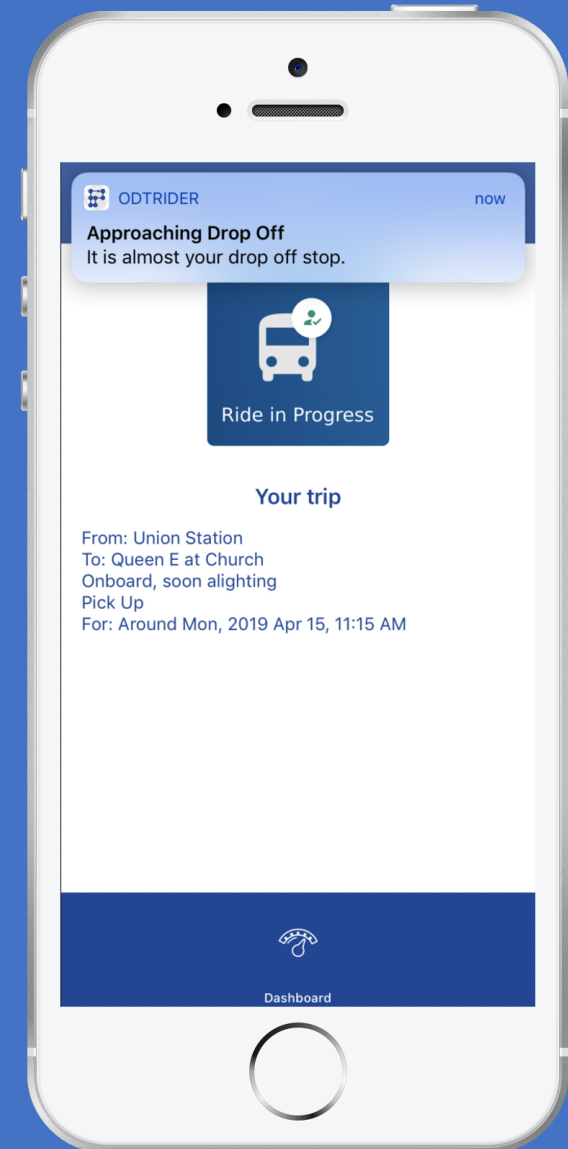
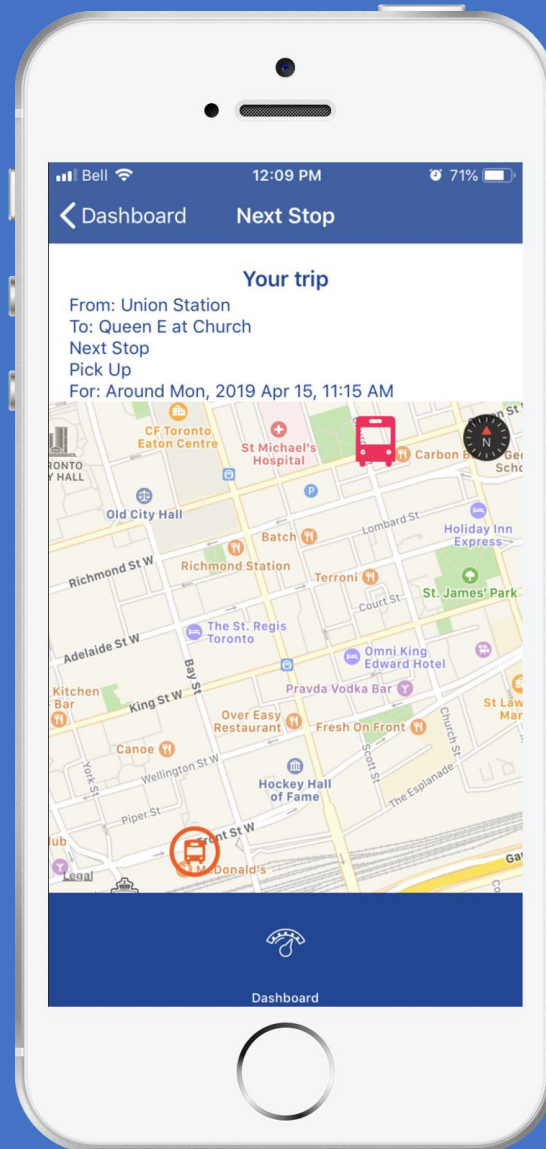
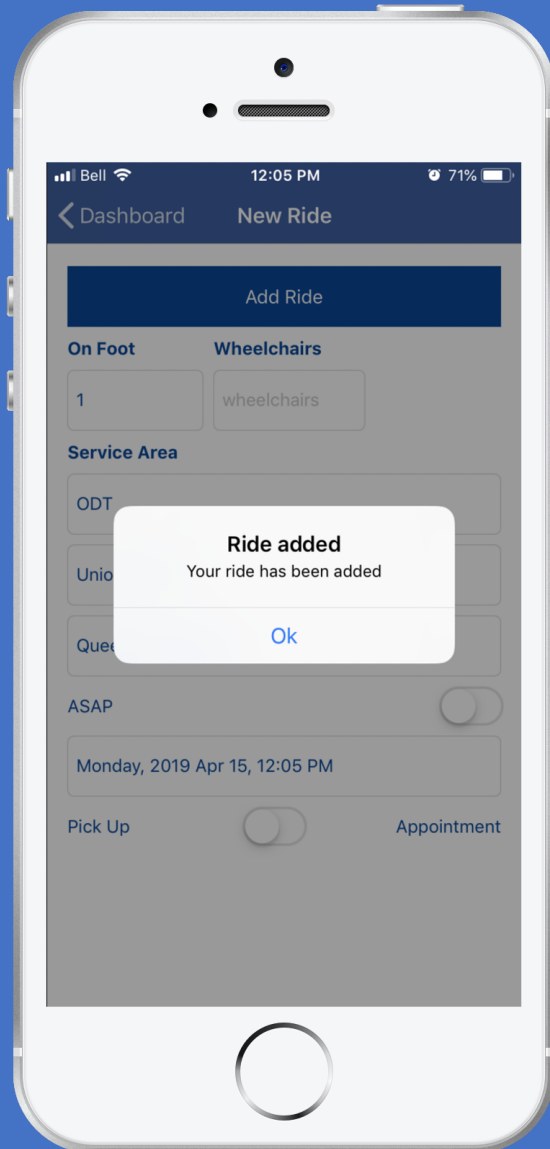
To find our best route, we also consider:

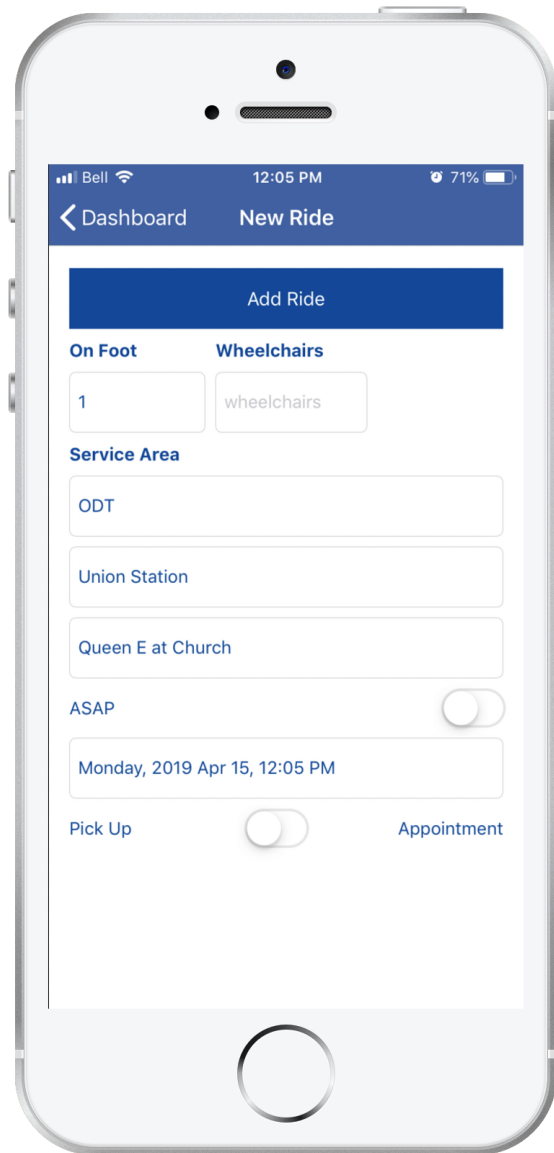
-  Ride Time
-  Route Distance
-  Trip Times
-  Lateness (Penalty!)
-  Shift Length
-  Capacity
-  Number of vehicles

A blurred city street scene with pedestrians and a yellow taxi. The image is dark and has a blue tint. The text "Rider Mobile Portal" is overlaid in white. The background shows a busy street with people walking, a yellow taxi, and a building with a sign that says "Dwell".

Rider Mobile Portal







Rider Accessibility and Customer Experience

- Multiple ways to order trips (Internet, Phone, Ad Hoc, Mobile App)
- No devices or mobile data required for riders
- Can use traditional fare media (tokens, cash fare, transfers, smart card)
- Book trips within 15 minutes (ASAP) or two weeks before riding
- Can reserve space for wheelchairs/mobility devices
- Belleville Transit gets 80% trips via web portal 20% via phone calls

ODT Pilot Characteristics

- 2-10 Buses (full size)
- One zone
- Night-time / low-demand routes
- 6 month duration (3 months set-up, 3 months of operations)
- Require bus stop locations and GTFS data for set-up





Featured on:

[CBC's The National](#)

[Pilot project keeps soaring | Belleville Intelligencer](#)

[Belleville transit pilot project ditches fixed routes for ... - Financial Post](#)

<https://startupheretoronto.com/type/profiles/pantonium-is-innovating-public-transportation-with-its-on-demand-transit-technology/>

Named a top cleantech company to watch in 2019

Management team has a combined **75 years experience** in transportation technology

Luke Mellor
luke.mellor@pantonium.com

Appendix

EverRun Overview

EverRun is a full suite of web and mobile applications, all centered around one autonomous optimization engine – built to enable transit agencies to deploy a transportation network.

Rider

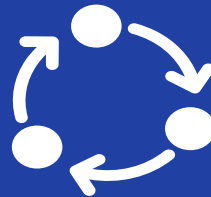
Rider
Web Portal



Rider
Android App



Rider
iOS App



EverRun
Optimization
Engine

Agency

Dispatch
Web Portal



Driver
Android App



Rider Overview

Below are the current general capabilities of the rider applications and web portal.

Book Rides

- Choose stop locations
- Choose time, date
- Choose pickup/dropoff
- Choose service area

View Updates

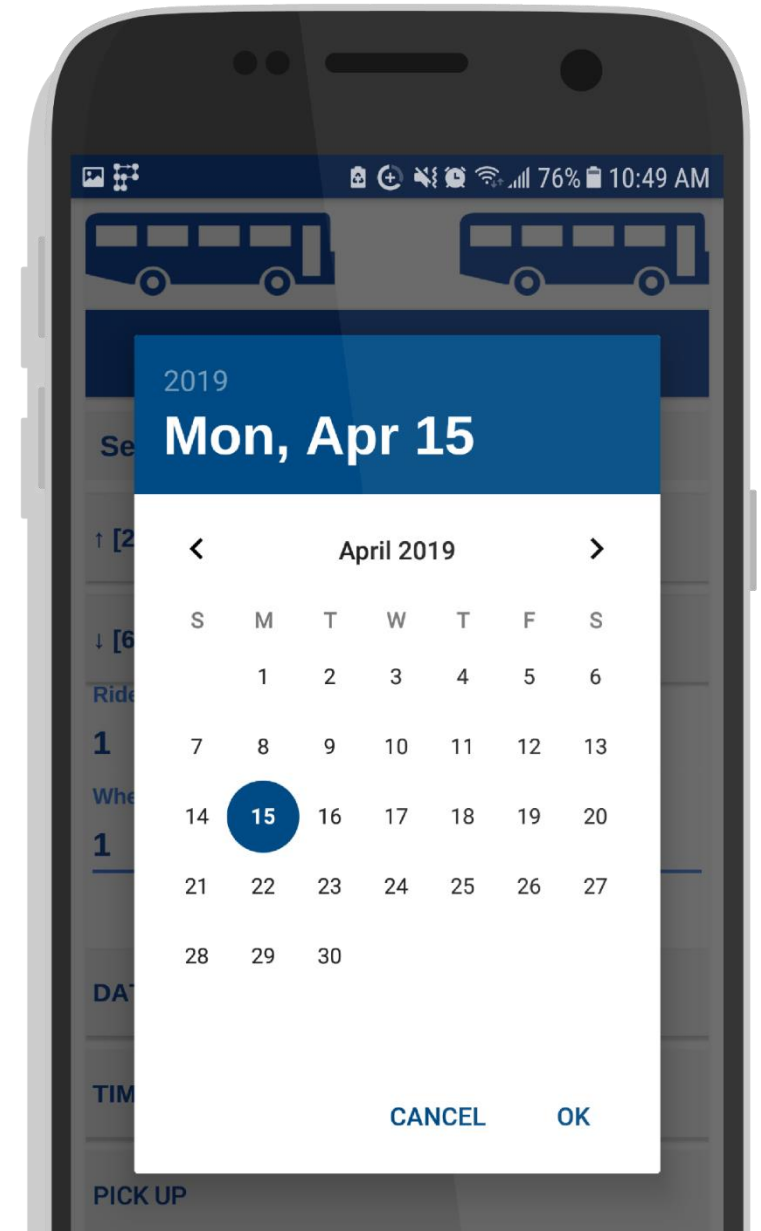
- See trip ETA
- See bus location enroute
- Check service area hours and times

Manage Rides

- Cancel rides
- Rebook past rides
- View trip history
- View current trip

Access

- Web portal
- Android Application
- iOS Application



Dispatch & Admin Overview

The dispatch and admin platform is accessible on any web browser, and allows user to manage and have visibility into all of your operations.

Book Rides

- Choose stop locations
- Choose time, date
- Choose pickup/dropoff
- Choose service area

Manage Shifts

- Schedule vehicles
- Schedule drivers
- Schedule journeys
- Modify start times, length, constraints

Manage Rides

- Cancel rides
- View trip summaries
- View trip details

Monitor Operations

- View live updated driver progress
- View driver GPS
- View boarding, timestamps

Rider Accounts

- Create simple rider accounts
- Deactivate riders
- Modify rider details

Manage Assets

- Create and manage all user accounts
- Modify global system settings

Driver Overview

Below are the current general capabilities of the mobile Android driver application

Complete Trips

- Get guided, stop by stop, through each assigned trip
- Enter and complete ad-hoc stops

Board Riders

- Confirm riders have boarded
- Add additional unplanned riders

Maps & Navigation

- See maps of next location
- Get turn-by-turn directions

Access

- Android Application

