

Using On-Demand Transit to Tackle Every Challenge



Evening On-Demand Service

JANUARY, 2018

Belleville's late-night fixed route buses often ran empty in long loops around the city serving an average of only 43 nightly riders. Only a small proportion of the city's bus stops were being serviced.

Riders were not happy with the service. While the transit agency wanted to do more, due to the poor ridership, there was little political support for additional funding to boost service.

After establishing a public-private partnership with the Ontario Centres of Excellence, Pantonium developed an on-demand transit platform and launched a pilot in Belleville in September 2018.

Belleville replaced their underperforming fixed route with an on-demand transit service that followed rider demand and routed buses in real-time. With on-demand, the city maximized productivity and delivered better service while using fewer resources.



Belleville, Ontario
CITY

50,716
POPULATION

247.2 km²
LAND AREA

IMPACT

- 300%** Increased ridership
- 70%** Increased service area
- 324** City-wide stops covered
- 17 min** Average ride time
- 12 min** Average wait time



OLD FIXED ROUTE



NEW HYBRID SYSTEM



Efficient Transit, Despite Pandemic

MARCH, 2020

Following the spread of COVID-19, Belleville saw its ridership dwindle down to 200 daily riders. Belleville Transit needed to continue accommodating essential trips and workers, but had to do so without fare income.

However, unlike other cities, Belleville didn't need to cut service. To cover their full service hours, 5 a.m. to midnight, it was a "quick decision" to eliminate fixed routes and switch over to full-day on-demand service.

After the switch to on-demand service, bus usage decreased by 58% (down to six buses at peaks), weekly mileage was down 60%, while service was still offered to every stop in the city.

With on-demand, Belleville dealt with the pandemic's chaos without much difficulty and were well positioned to capitalize on new opportunities.

The flexibility of on-demand allowed Belleville to scale service to match rider demand and efficiently use their resources.



"Because its so adaptable, on-demand transit has become the golden tool in our toolkit. When we face a new challenge, our first thought is 'how can we use on-demand to solve this?'"

- Paul Buck, Manager of Transit Operations

Using Data to Create a Hybrid System

SEPTEMBER, 2020

By June, rider demand had risen and fixed routes were re-instated for day-time service, while on-demand continued running evenings and weekends.

As the all-day on-demand service had operated through April and May, the trip data collected thoroughly illustrated city-wide travel patterns.

Using the data, Belleville determined which areas were seeing high rider demand and at what times that was occurring, a perfect resource for route planning.

Seeing sufficient demand, Belleville added two evening fixed routes in September, while simultaneously running on-demand service.

Using a new feature called Grains, the city could overlap services without compromising productivity on either fixed routes or on-demand.

Presently, Belleville is carrying on with operating this mix of fixed routes and on-demand service to efficiently provide convenient transit to their riders.