# Visualize your path to better transit

Every route has a story



PERFORMANCE MONITORING • RUNTIME DEVELOPMENT RIDERSHIP ANALYTICS • ON-DEMAND TRANSIT ANALYSIS NETWORK OPTIMIZATION • APC/AVL DATA CLEANING



#### KEY OUTCOMES

- Barrie Transit updated their schedules in half the time while route OTP increased by up to 25%
- Brampton Transit added additional resources to address early-morning and and evening crowding in a targeted and cost-efficient way
- Time to investigate a crowding or reliability complaint reduced from 15-30 minutes to under 2 minutes
- Barrie Transit designed a hybrid network combining fixed-route and on-demand transit - scheduled to roll out in June 2024

#### TRANSIFY AS A ONE-STOP DATA PLATFORM

At Barrie Transit (50 buses), Transify has been in-use for over two years and has made their APC, CAD/AVL, On-Demand, and census data all ready to visualize in seconds. Each of these data sources has been fully integrated with Transify, making manual data extractions and uploads a relic of the past.

"Transify's induced demand for more scheduling refinements due to the ease of pulling actual run time data. This leads to better run times matching actual conditions by hour to the benefit of the transit customer."

- Mike McConnell, Transit Projects Lead at Barrie Transit

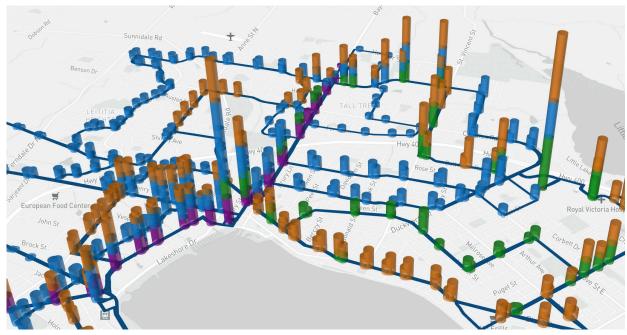


FIGURE 1: MAP OF THE TOTAL DEPARTURE LOAD AT EACH STOP.

#### IMPROVING RELIABILITY

At Brampton Transit (475 buses), schedulers have used Transify to develop more accurate runtimes. This improves customer experience by reducing service gaps and missed connections. Their new schedules have also addressed operator concerns related to schedule reliability and better reflect actual driving conditions.

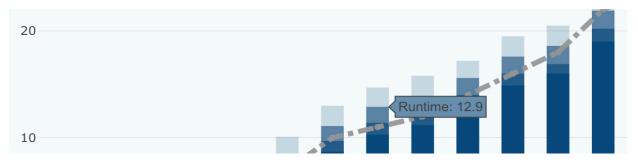


FIGURE 2: ROUTE RUNTIME, WITH EACH BAR REPRESENTING VARIOUS PERCENTILES AT A STOP. THIS CHART CAN ALSO BE BROKEN DOWN BY TRIP OR HOUR.

"Our previous method of setting runtimes for scheduling was very tedious but Transify made it painless! Transify has allowed us to make more accurate schedules and add new timebands that we previously did not have the time to create. We saved over a week in updating our schedules while doing significantly more analysis!"

- Robin Mennie, Transit Planner at Barrie Transit

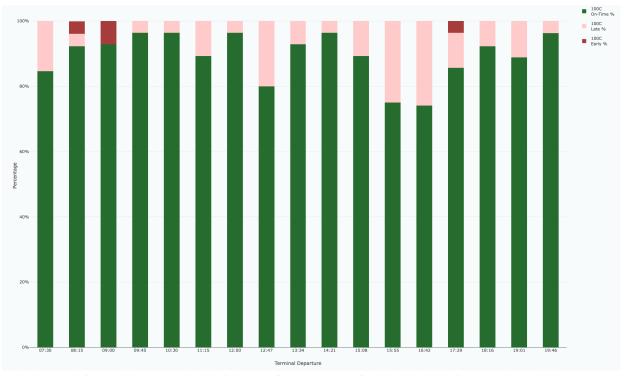


FIGURE 3: ROUTE ON-TIME PERFORMANCE, WITH EACH BAR REPRESENTING A TRIP.

#### RIDERSHIP ANALYTICS

With a Ridership Recovery of close to 130%, Brampton Transit is one of North America's fastest growing transit agencies. With this rapid growth, Brampton had to be strategic about their resource allocation. Using Transify, service planners identified where:

- Additional trips could be inserted between over-capacity trips, which they scheduled by having some blocks start earlier in the day.
- Frequency in the shoulder periods could be optimized to improve midday service and early-morning capacity.

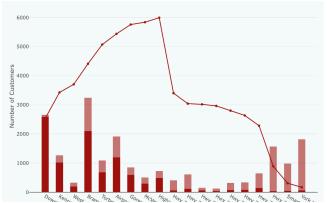


FIGURE 4: ROUTE RIDERSHIP PROFILE. HOVERING OVER THE ELEMENTS REVEALS THE BOARDINGS, ALIGHTINGS, AND DEPARTURE LOAD AT EACH STOP. AVERAGE DEPARTURE LOAD AT EACH STOP IN THIS IS THE MOST POPULAR CHART IN TRANSIFY DUE TO THE IMMEDIATE INSIGHTS AND CONTEXT IT PROVIDES INTO A ROUTE'S RIDERSHIP PATTERNS.

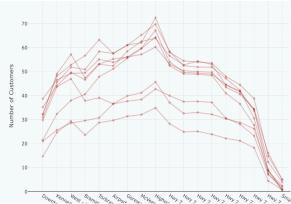


FIGURE 5: TRIPS DEPARTURE LOAD CHART. HOVERING OVER EACH TRIP REVEALS THE MARCH 2019. ADJUSTING THE TIME-OF-DAY SLIDER INSTANTLY FILTERS THE TRIPS THAT ARE SHOWN.

As part of their Transit Vision network plan, Barrie Transit is planning for more direct routes as to speed up travel times while maintaining coverage with on-demand service. Transify's Hexagon Map below groups together stops as to help their planners identify which corridors are the busiest and where there is excess capacity.

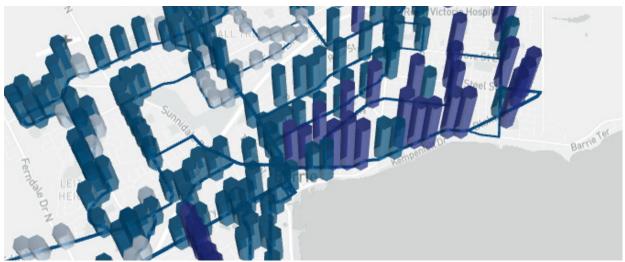
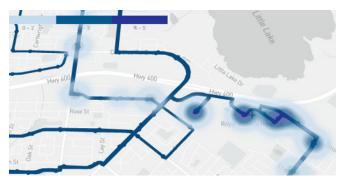


FIGURE 6: HEXAGON MAP SHOWING THE AVERAGE PASSENGER LOAD OF THE STOPS WITHIN EACH HEXAGON.

## OPTIMIZING THE EXISTING NETWORK



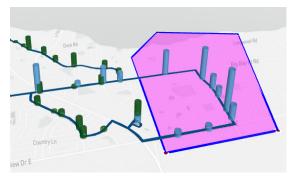


FIGURE 7: HEAT MAP OF CROWDED TRIPS.

FIGURE 8: MAP-BASED STOP SELECTION.

Transify's maps make identifying where crowding is taking place and answering ridership-related questions faster than ever. Barrie Transit is creating maps of their on-demand trip patterns to share with stakeholders to convey how the service is being used by residents.

As usage of the on-demand service grows, Barrie Transit plans to study potential fixed routes to serve the busiest times and areas - all of which can be done right in Transify.



FIGURE 9: ORIGIN-DESTINATION PAIRS OF ON-DEMAND TRIPS, WHICH COULD REVEAL OPPORTUNITIES TO INTRODUCE FIXED ROUTE SERVICE.

## IMPROVING SCHEDULE ADHERENCE

At Barrie Transit, Transify is being used to quickly understand the full context behind customer complaints on both crowding and reliability.

Transify is also proactively identifying trips that are not adhering to the schedule based on customized criteria. For instance, trips that started early or late without a reason (i.e. previous trip arrived on-time) are flagged, which planning staff can pass to their contractor for investigation.

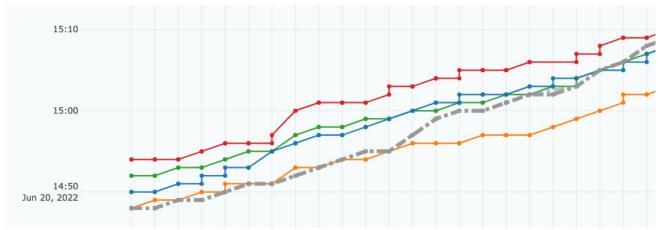


FIGURE 10: CHART SHOWING A TRIP ACROSS FOUR WEEKDAYS. THE DASHED LINE REPRESENTS THE SCHEDULE, AND THE X-AXIS CONSISTS OF EACH STOP IN ORDER.

## VISUALIZING COVERAGE & DEMOGRAPHICS

As part of Barrie's Transit Vision, stops are being moved to balance the spacing between them and to support more direct routes. As moving stops is a gradual process, impacts in transit coverage to residents, jobs, and equity-deserving groups are measured in Transify prior to making each stop or routing change.



FIGURE 11: 5-MINUTE WALK TO TRANSIT WITH A NEW STOP PAIR, WITH THE AREA SHADED GREEN REPRESENTING THE AREA THAT GAINED ACCESS TO TRANSIT WITHIN A 5-MINUTE WALK.

# VISUALIZING ACCESS TO OPPORTUNITIES

Improving access to opportunities is a key component of Barrie's Transit Vision, which is being visualized right in Transify. With Transify, Barrie Transit staff were able to visualize the impacts of frequency and coverage changes to access to jobs as they rapidly iterated through multiple concepts.

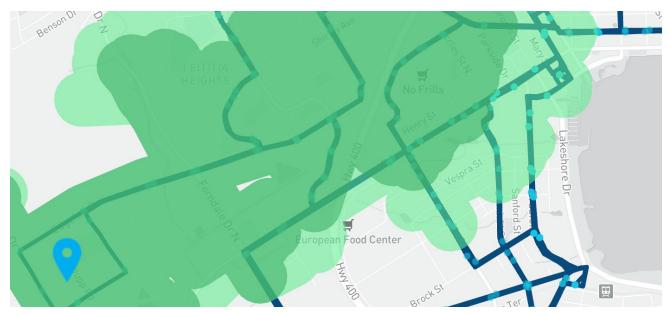


FIGURE 12: IMPACT OF IMPROVING ONE ROUTE'S FREQUENCY FROM EVERY 30 TO EVERY 15 MINUTES. THE LIGHT-GREEN SHADED AREA REPRESENTS THE AREA THAT IS NEWLY ACCESSIBLE IN A 30-MINUTE TRIP, MAKING DOWNTOWN AND 2.4X MORE JOBS REACHABLE.

Demographic data can be generated instantly for any shaded area made in Transify. Census data is built-in from Statistics Canada, while additional data such as projections and employment activity can be loaded in to Transify for instant analysis.

## SUCCESS WITH TRANSIFY

This case study showed how both Brampton Transit (475 buses) and Barrie Transit (50 buses) are using Transify to visualize their paths to better transit.

From improving reliability to designing a better network, Transify is there to help you transform your service with data you already have.

# WANT TO LEARN MORE?

Schedule a Demo: transify.com