Overcapacity Bus Management Policies in Canadian Cities

ISSUE
How do other cities handle overcapacity buses and do they have a policy? What options are available for providing more detailed reporting on bus route capacity?

BACKGROUND
The Standing Policy Committee on Transportation, at its meeting held on January 9, 2024, considered the Saskatoon Transit – Processes and Policies to Manage Overcapacity Buses and Routes report and resolved:

> "1. That the Administration provide a report on how other cities handle over capacity buses and if there are policies in this regard, and
> 2. That the Administration evaluate reporting options for providing more detailed reporting on bus route capacity including a dashboard format."

CURRENT STATUS
While there is no formal policy, Saskatoon Transit's planning process is to allocate extra buses, when available, to its regularly scheduled service to increase frequency on routes experiencing high ridership numbers. The Saskatoon Transit – Processes and Policies to Manage Overcapacity Buses and Routes report provides further details on Saskatoon Transit's planning process and operational responses to overcapacity buses and routes.

Saskatoon Transit currently provides reports on ridership levels annually, however no reporting on bus route capacity is in place. As buses reach capacity, operators manually adjust the bus head sign so customers at bus stops are able to see if the approaching bus is full.

DISCUSSION/ANALYSIS
Saskatoon Transit invited Canadian Urban Transit Association (CUTA) agencies across Canada to complete a benchmark survey to understand if full buses are experienced in other municipalities and how the agencies monitor and manage the issue. Fifteen transit agencies responded, and the results are summarized in Appendix 1.

Survey Results
All agencies responding to the benchmark survey indicate they measure and manage full buses; however, only four of the 15 respondents have a formal policy. General procedures and best practices being followed include:

- Regular monitoring of monthly ridership data;
- Anticipating growth in new neighbourhoods;
- Monitoring yearly trends; and
- Analyzing daily ridership totals.

Most agencies indicated they are experiencing full buses at least some of the time, with only three noting that this issue seldomly occurs.

The majority of the agencies use similar approaches to respond to full buses, depending on the cause and impact:

- Maintain regular frequency and monitor without adding additional service;
- Plan for and schedule frequency adjustments with an extra bus for high-demand routes such as high schools and universities; and
- Deploy a standby bus, depending upon fleet availability and if budget allows.

Survey results indicate that most agencies rely on a combination of the following data sources to make decisions:

- Customer-driven complaints of “full bus” incidents;
- Repeated full buses tracked by operators; and
- Repeated pass-ups of riders at bus stops tracked by operators over a specified period.

Half of the agencies use the bus head sign to communicate a “full bus” to customers, while others communicate through other means such as service alerts, crowd-sourcing apps or interactive maps to show bus status. Additionally, several agencies analyze Automatic Passenger Counter (APC) data as part of managing full buses.

How does Saskatoon compare?

Like most agencies responding to the benchmark survey, Saskatoon Transit does not have a formal policy to manage full buses; it responds to capacity concerns by adding an extra bus or increasing the frequency of trips on a busy route when an issue persists and buses are available. Currently, the limited fleet size and number of buses available for service prevent Saskatoon Transit from using these common strategies to respond to all known capacity issues.

Routes and bus assignments are planned using population and neighbourhood growth trends and enrollment forecasts from high schools and post-secondary institutions. Based on bus availability, permanent service changes are implemented each summer where needed or throughout the year on a case-by-case basis. Operators track instances of full buses manually and the ridership data will become increasingly more accurate as APCs are installed.

The processes and procedures Saskatoon Transit uses to manage overcapacity buses align with industry best practices and general processes and procedures in place at other Canadian cities that responded to the benchmark survey.

Reporting on Bus Route Capacity

Twenty-three buses in the Saskatoon Transit fleet currently have APCs installed and all new buses are ordered with APCs. Additionally, a tender to retrofit a further 50 buses recently closed and with the eight new buses on order, this will bring the total number of buses with APCs to 81 by late fall.

Digital service alerts pushed to customers through the Transit App and posted to the Saskatoon Transit website and third-party trip planning apps have proven to be a successful communications tool, keeping customers informed in real time of service impacts such as detours, stop closures, delays, and service cuts. Integrations with vehicle monitoring systems have improved the consistency and quality of these alerts. When information from APCs is available, Saskatoon Transit will determine the feasibility of providing full bus information to customers in real time with push notifications through the Transit App and posted to the Saskatoon Transit website and third-party trip planning apps. This would compliment the current use of “full bus” head signs to communicate full buses.

OTHER IMPLICATIONS

There are no privacy, legal, social, financial or environmental implications identified.

NEXT STEPS

Saskatoon Transit will continue to monitor instances of overcapacity buses and pass-ups using current processes and procedures, engage with its key stakeholders and adjust service where possible.

Through integrations with vehicle monitoring systems, Saskatoon Transit will continue to investigate and implement service alert improvements and determine the feasibility of providing full bus information to customers in real time using information from the APCs.

The eight new buses arriving in the fall of 2024 and 20 new buses arriving in late 2025 will allow Saskatoon Transit to better manage overcrowding on busy routes following the processes and procedures currently in place.

APPENDICES

1. Managing Full Buses – CUTA Agency Survey Results

Report Approval

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