

Dwell Reports for Transit Administrators

Long dwell times can create delays across your system and impact rider experience. Understanding where and why vehicles spend extra time at stops is essential for improving route efficiency and planning. This guide outlines the problem, its impact on operations, and how comprehensive dwell reporting helps resolve it.

Challenge

Transit administrators need to identify when and where buses stop longer than expected. Today, getting this information often requires manual data exports and custom spreadsheets. This adds time and complexity to an already busy workload, leaving important questions unanswered:

- Which stops or routes experience excessive dwell times?
- Are long dwell times due to high passenger volume, schedule design, or driver behaviour?

Without clear answers, service adjustments and planning decisions become guesswork.

Impact

When dwell data is hard to access, agencies face several operational risks:

- Longer delays cascade through schedules, reducing overall reliability.
- Inaccurate stop timing affects route planning and on-time performance.
- Planners cannot verify capacity or behavioral patterns, leading to misaligned service.
- Performance discussions with stakeholders lack clear evidence, creating tension.

Solution

Two key reports give agencies the visibility they need to address dwell-related issues quickly and accurately.

1. Dwell Audit Report

Identify buses that remain at stops beyond a set threshold.

- **What it does:** Lists instances where dwell time exceeds your chosen limit.
- **Why it matters:** Quickly flags problem areas for investigation and correction.
- **Filters available:** Dwell time threshold, date range, and route.

2. Average Dwell Time Report

Understand typical dwell times by stop and route.

- **What it does:** Calculates average dwell duration for each stop, helping validate schedule accuracy.
- **Why it matters:** Supports route timing improvements and reduces reliance on estimates.
- **Filters available:** Date range and route.

Workflow

- **Who uses it:** Transit administrators and planning teams.
- **When:** After service hours for analysis and before making schedule changes.
- **What changes:** No more manual exports or separate spreadsheets. Reporting is direct, clear, and ready for decision-making.

Impact Summary

- Reduces schedule uncertainty by pinpointing long dwell times.
- Improves route design with data-based timing adjustments.
- Cuts manual reporting work for transit staff.
- Creates transparency in performance reviews with consistent metrics.