

To: Operations & Scheduling Committee

Date: 06/24/2025

From: Pranjal Dixit, Manager of Planning

Reviewed by: AMS

SUBJECT: Swiftly Modules

Background:

In the fall of 2022, our agency began searching for solutions to improve on-time performance (OTP) data collection without needing a complete overhaul of our existing Computer-Aided Dispatch/Automatic Vehicle Location (CAD/AVL) system. This led us to Swiftly, a cloud-based transit data platform known for its seamless integration with existing bus hardware and robust data analytics.

We initially implemented Swiftly's On-Time Performance and Run Times modules to gain a comprehensive understanding of our service delivery. Since initial implementation, staff added more Swiftly modules, including Live Operations/Real-time Passenger Predictions, GPS Playback, and Service Adjustments, starting in August 2024.

These additions have further enhanced live vehicle tracking, improved on-time performance monitoring for operations and customer service staff, and provided better stop predictions and real-time information for our customers.

Technology:

Swiftly leverages a strategic combination of three data sources to track real-time bus location and calculate on-time performance and run times at every stop along each route: General Transit Feed Specification (GTFS) and BusTime Application Programming Interface (API) data coming from the existing Clever Devices system, and vehicle location data from the CradlePoint routers already installed on the buses.

In addition to a higher frequency of data points, the data from the routers has much lower latency (i.e., the delay between the data being generated and received), which means it more closely reflects real-time conditions.

Figure 1: Live Operations Module

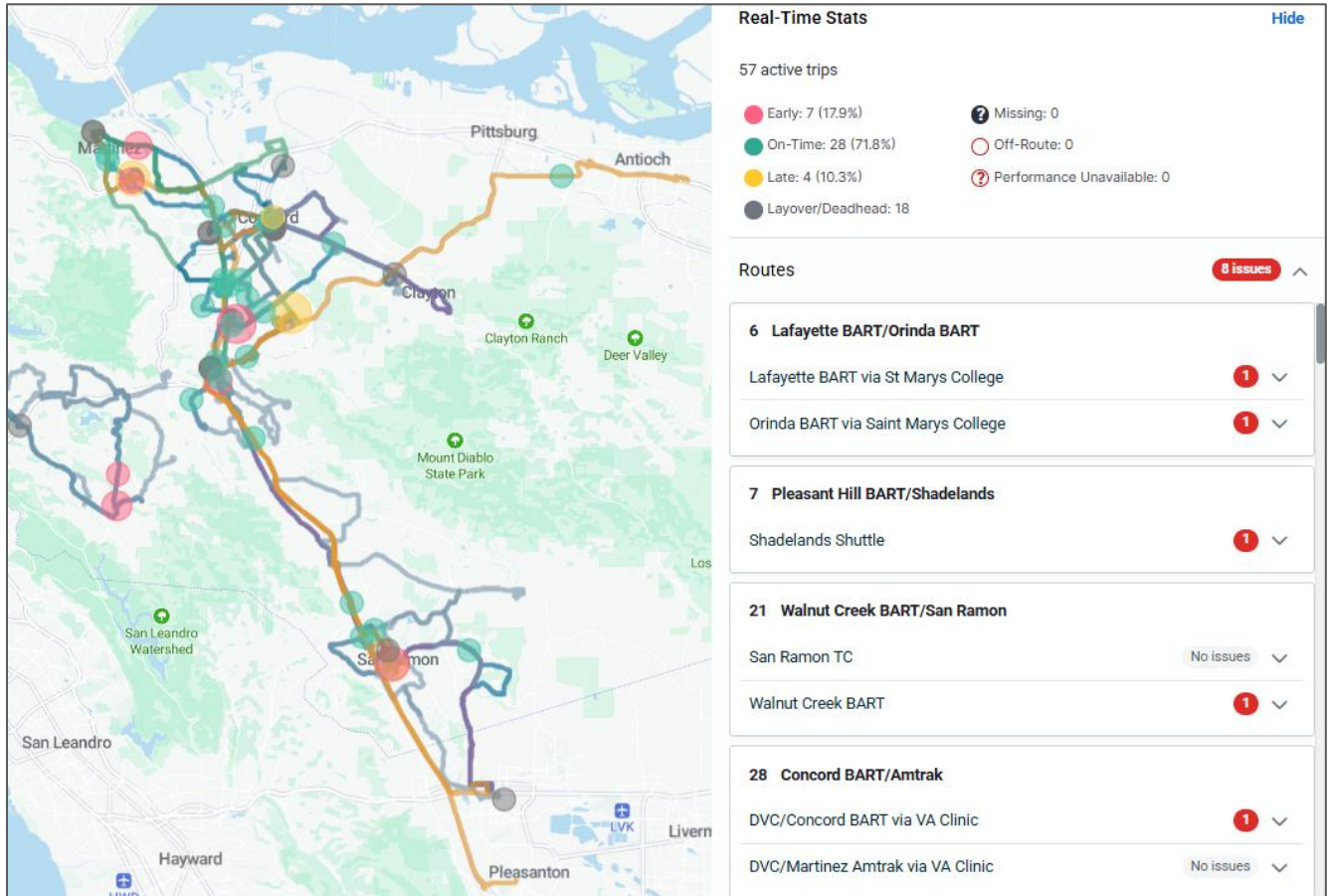
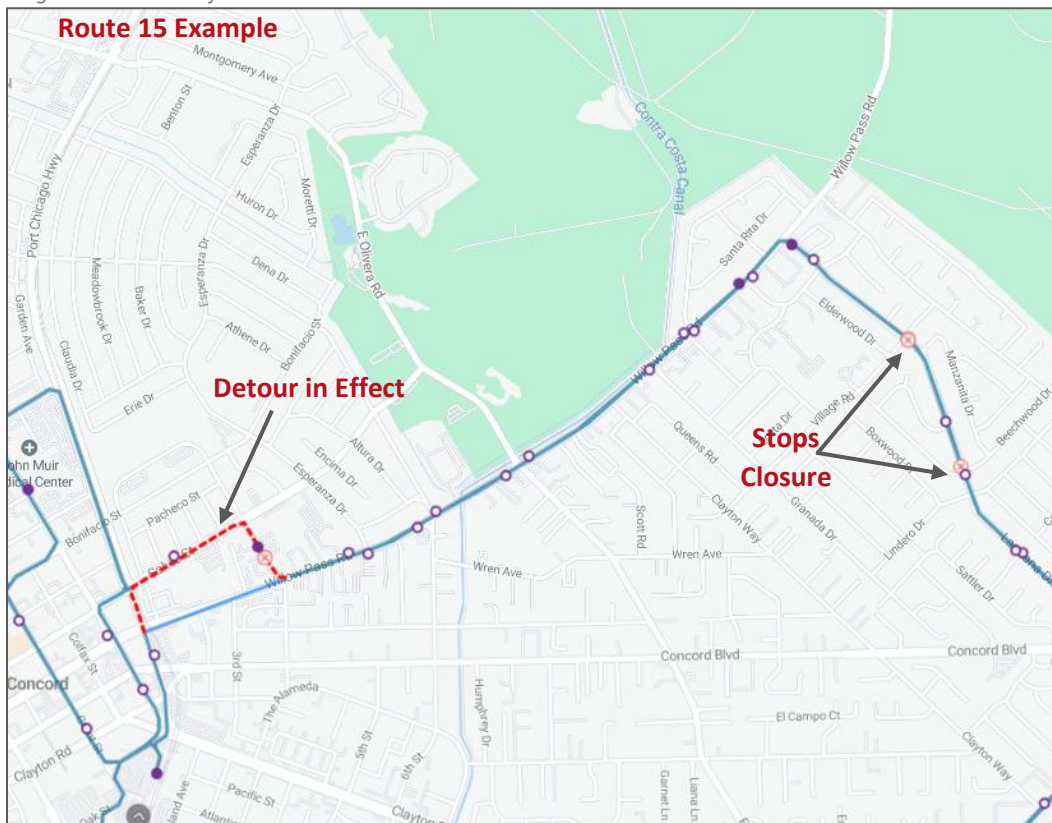


Figure 2: Service Adjustments Module



Impact:

Swiftly's platform has significantly improved our data capabilities, providing 40% more stop-level data than our previous system which only offered on-time performance data at scheduled timepoints. Furthermore, Swiftly's auto-assigner has been crucial in recovering 10.5% of missing stop data that would otherwise have been lost due to missing operator login information. This enhanced data has been instrumental in analyzing system performance and developing targeted service changes for optimization.

By leveraging all five Swiftly modules, our staff has successfully implemented several key service improvements. A prime example is the January 2025 service change, which focused on boosting on-time performance across seven routes. This initiative led to a 5.6% increase in on-time performance on those specific routes and an impressive 2.8% increase systemwide.

The Service Adjustments module has also been invaluable, because it allows our staff to directly input information about trip cancellations, detours, and stop closures into the platform. This information then seamlessly updates all trip planning apps (Transit App, Google Maps, etc.) in real time. Between August 2024 and June 2025, we recorded 1,415 trip cancellations (due to factors like operator shortages or bus breakdowns) and implemented detours or stop closures impacting over 5,000 trips. While these are unavoidable disruptions for passengers, the real-time updates flowing to trip planning apps help to keep riders well-informed. This significantly reduces the workload on our customer service team, enabling our representatives to dedicate more attention to callers with complex needs.

Financial Implications:

The one-year cost for the five modules (On-Time Performance, Run Times, Live Operations/Real-time Passenger Predictions, GPS Playback and Service Adjustments) is \$246,563. Staff plans to use TDA funds to cover the cost, which has already been included in the FY 2026 budget.

Recommendation:

Staff recommends renewing the contract with Swiftly for the five modules for one year at a cost not to exceed \$246,563.

Action Requested:

Staff requests that the O&S Committee forward the proposed one-year contract with Swiftly to the Board for approval.

Attachments:

None