

Dispatch

AVL

Facilities

06/14/2021



ADA

Carrier

Run

VehicleID

CustomerID

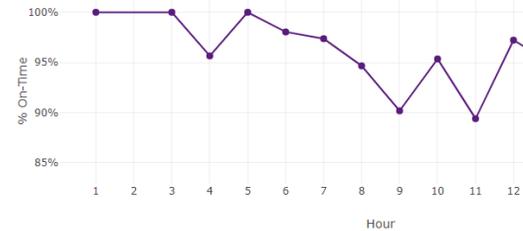
AVL

Hourly

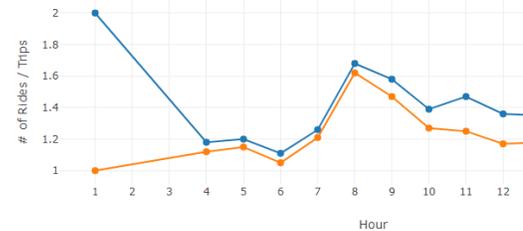
Hourly Performance

	Hour	Arrived	Completed	Act. Early	Act. OnTime	Act. Late	Act. OTP	TPH	RPH	Incomplete	Est. Early	Est. OnTime	Est. Late	Est. OTP
○	0	0	0	0	0	0	0	0	0	0	0	0	0	0
○	1	1	1	0	1	0	100	1	2	0	0	0	0	0
○	2	0	0	0	0	0	0	0	0	0	0	0	0	0
○	3	3	0	1	2	0	100	0	0	0	0	0	0	0
○	4	23	19	3	19	1	95.65	1.12	1.18	0	0	0	0	0
○	5	23	23	5	18	0	100	1.15	1.2	0	0	0	0	0
○	6	51	20	6	44	1	98.04	1.05	1.11	0	0	0	0	0
○	7	152	74	24	124	4	97.37	1.21	1.26	0	0	0	0	0
○	8	206	204	13	182	11	94.66	1.62	1.68	0	0	0	0	0
○	9	112	174	18	83	11	90.18	1.47	1.58	0	0	0	0	0
○	10	86	89	12	70	4	95.35	1.27	1.39	0	0	0	0	0
○	11	66	75	6	53	7	89.39	1.25	1.47	0	0	0	0	0
○	12	72	69	9	61	2	97.22	1.17	1.36	0	0	0	0	0
○	13	99	71	23	71	5	94.95	1.18	1.35	0	0	0	0	0
○	14	220	143	33	177	10	95.45	1.28	1.35	0	0	0	0	0
○	15	140	181	13	108	19	86.43	1.5	1.6	0	0	0	0	0
○	16	70	110	8	51	11	84.29	1.28	1.36	4	0	2	2	82.43
○	17	0	0	0	0	0	0	0	0	17	0	17	0	100
○	18	0	0	0	0	0	0	0	0	14	0	14	0	100
○	19	0	0	0	0	0	0	0	0	11	0	11	0	100
○	20	0	0	0	0	0	0	0	0	16	0	15	1	93.75
○	21	0	0	0	0	0	0	0	0	5	0	4	1	80
○	22	0	0	0	0	0	0	0	0	4	0	4	0	100
○	23	0	0	0	0	0	0	0	0	1	0	1	0	100

Hourly On-Time Performance



Rides & Trips Per Hour



Denver Regional Transportation District operationalizes accessible ride logistics with Dash

Executive Summary:

- A U.S. metropolitan transportation authority rapidly produces a ride-planning Dash application to assist passengers with disabilities on over 2,000 rides daily.
- Developers chose Dash over legacy tools for the fast development time and custom, mobile-friendly GUIs that can be written in Python.
- Engagement with Plotly supports the scale-out of Dash application deployments in other areas like vehicle tracking and customer complaint investigations.

Dash really accelerated our product development. It met our need to ideate and move to production quickly, getting the final product into our customers' hands much faster than it would have with a different approach.

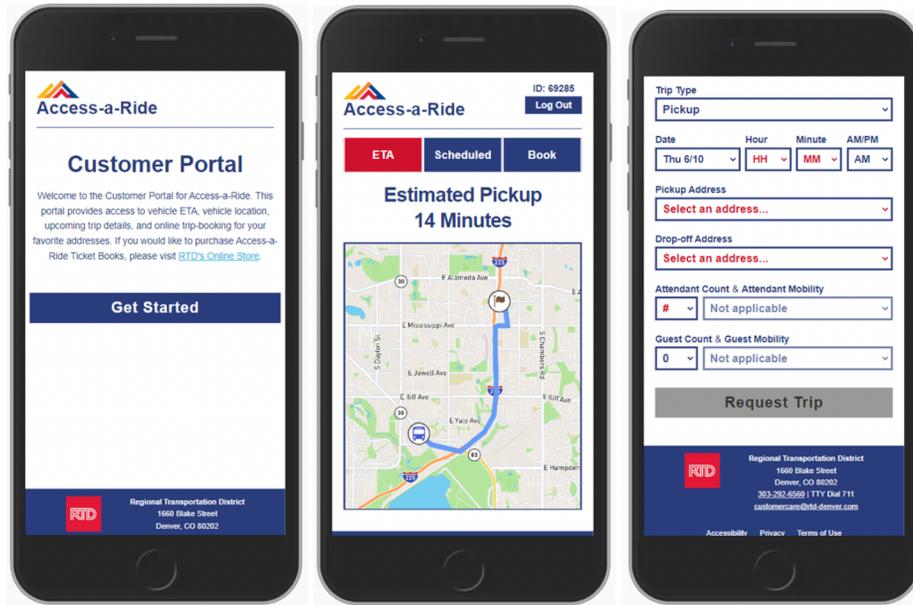
— Systems Administrator, Intelligent Transportation Systems at Denver RTD

Promoting mobility on mobile

The [Denver Regional Transportation District \(RTD\)](#) helps over three million people in Colorado's most populous metropolitan area get where they need to go. RTD offers several web applications that make it possible for passengers to plan their transit routes. One RTD service, called Access-a-Ride, provides bus transportation for passengers with disabilities. IT system developers planned to deliver a customer portal for the service, but delays from an incumbent software vendor led the team to consider building the solution themselves.

Python-savvy members of the team started developing a prototype. [Dash's Python](#) framework enabled the data-driven application to support rich, geospatial mapping to give passengers accurate views of their routes and drop-off times from their mobile devices. Importantly, because Dash is open-source, the team was able to make necessary adjustments to ensure their customer portal was accessible as per WCAG 2.x standards.

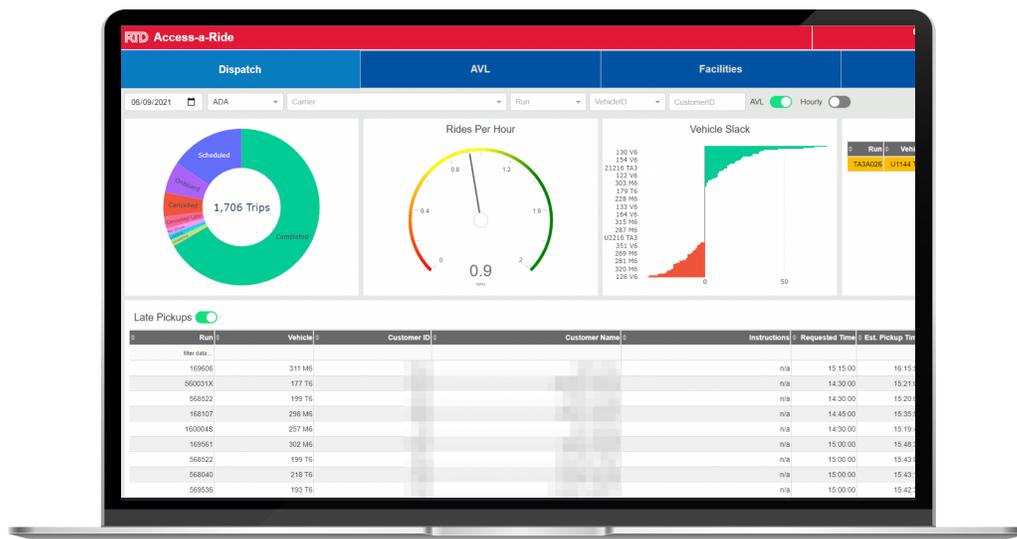
The prototype received positive feedback from management, and the team quickly moved the customer portal into production, where it would help passengers on over 2,000 daily trips. During Beta testing, the portal received a lot of feedback, which the team was able to incorporate easily and quickly – often pushing out changes within the same day.



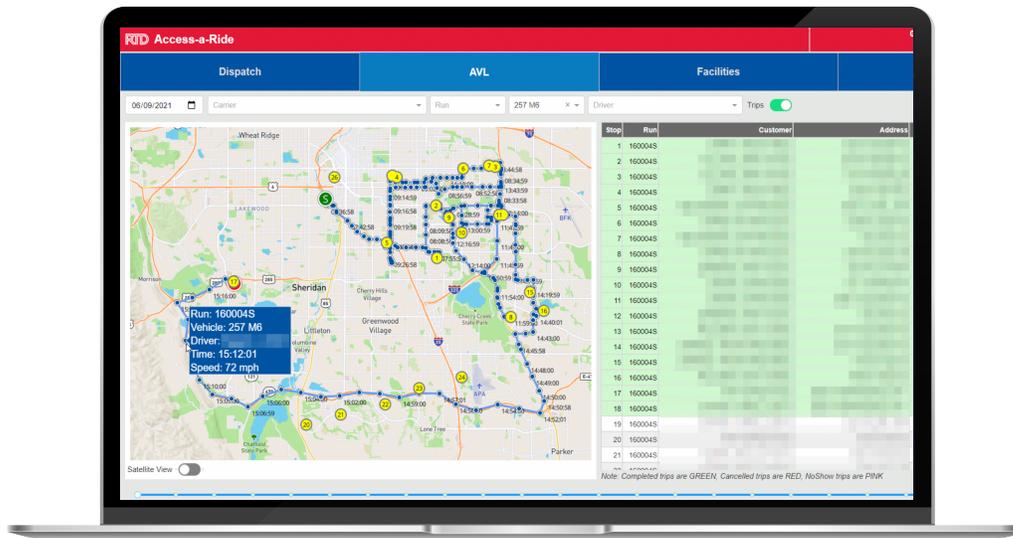
The *Access-a-Ride Customer Portal* is built with Dash and provides an interactive, mobile-responsive user interface for RTD passengers in the Denver Metropolitan area.

Dash for dispatch operations

With Dash chosen as the framework for the Access-a-Ride customer portal, other RTD developers began building Dash applications for new use cases in internal data management. By deploying Dash applications within internal operations, different teams could easily visualize and explore the wealth of data that comes with operating metropolitan transportation systems across 2,300 square miles.



In the dispatch dashboard, late trip events are flagged in the data table, alerting dispatchers who can then manage vehicle logistics accordingly.



Developers enhanced the dashboard with AVL playback to visualize point-in-time vehicle tracking and facilitate research of customer complaints.

These new Dash applications combine important operational data and business intelligence into interactive, multi-page views. Interactive visualizations like color-graded maps and data tables give insight down to the trip or customer level, enabling dispatchers to manage fleet logistics, investigate late trips and explore vehicle analytics, all towards the goal of ensuring customers get to the right place at the right time.

In the light of the successful launch of the Access-a-Ride customer portal, and with Dash usage growing internally within RTD, Plotly continues to support the team as they develop and deploy more Dash applications within their organization.

About Plotly's Dash

Plotly is a software company whose mission is to enable every company, around the world, to build data apps. Our product, Dash Enterprise, is a platform of best-in-class development tools to quickly and easily visualize data in Python from virtually any data source. With customers across the Fortune 500, Plotly is a category-defining leader in enabling data-driven decisions from advanced analytics, machine learning, and artificial intelligence. For more information, visit <https://plotly.com>.