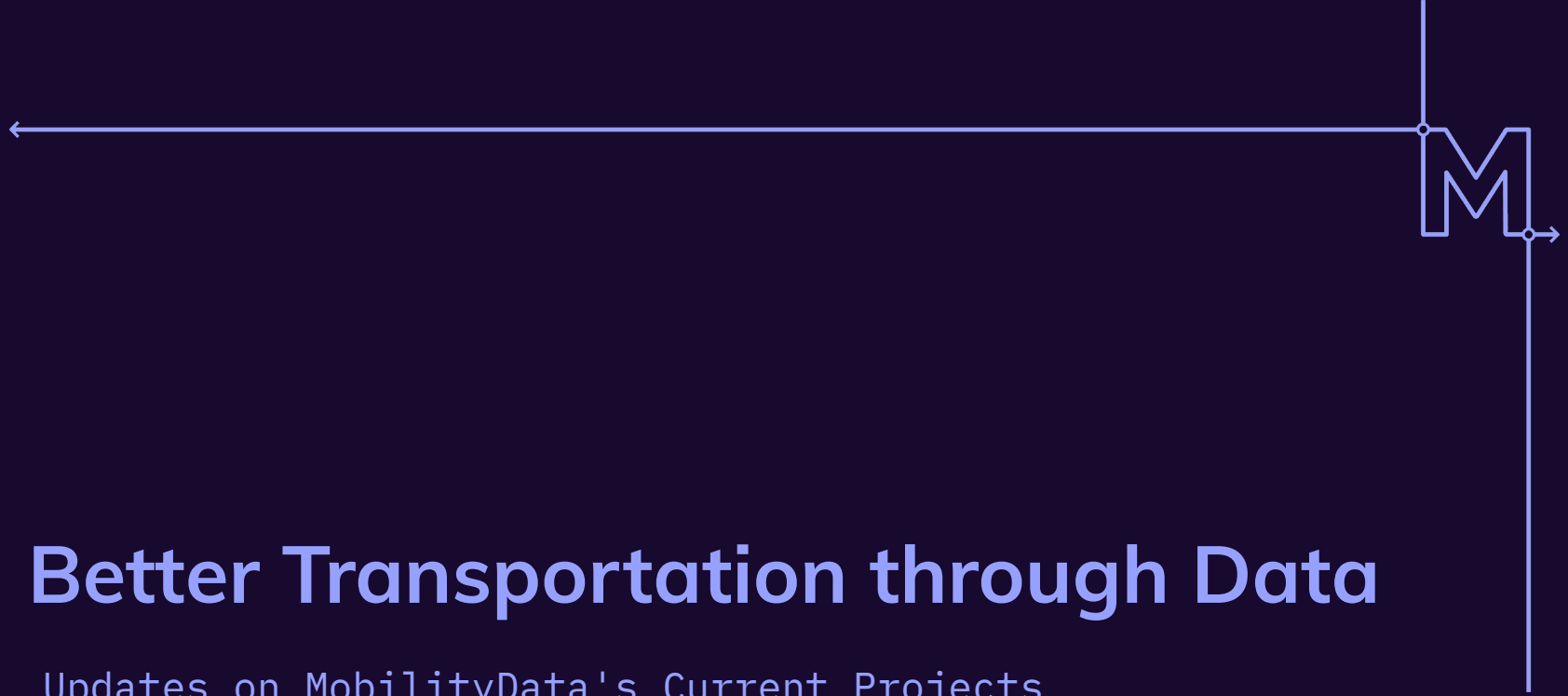

Better Transportation through Data

Updates on MobilityData's Current Projects

Tzu-Jen Chan
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MobilityData

We are the global nonprofit organization dedicated to developing the open-source data standards that provide traveler information

We are the maintainer of GTFS and GBFS

Current Public Transit Projects (https://mobilitydata.org/roadmaps/)

- GTFS extensions (GTFS-Fares v2, GTFS-Flex)
- Define GTFS features
- Improve GTFS governance process
- Tools (Mobility Database, GTFS Validator)

GTFS-Fares v2

Issue - the previous fares features in GTFS (Fares v1) can only represent simple fare structures

Goal - Riders can get accurate pricing information and choose from a comprehensive range of options, including various passes, fare media, and rider categories within different fare systems

GTFS-Fares v2 aims to model more complex fare structures

It is currently being developed iteratively

GTFS-Fares v2

Have adopted:

- Simple zone-based fares
- Fare media
- Time-based fares
- Route-based fares (networks)

Working on:

- Priority of matching rule between a leg and multiple products
- Improve mechanisms for multi-legs journey.

Next:

- Improve zone-based fares

Future:

- Rider category
- Fare Capping
- Distance-based fares
- Inter-agency fares

and more...

https://gtfs.org/extensions/fares-v2/

GTFS-Flex

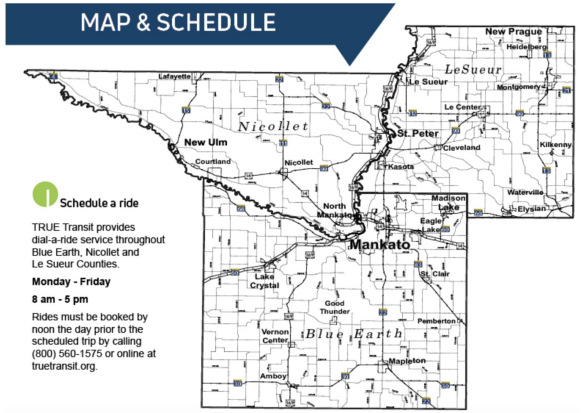
DRT works in standalone app/website/service
Riders are not aware of DRT options

Riders discover DRT services through trip planners
Provide integrated routing options for both fixed-route and DRT services

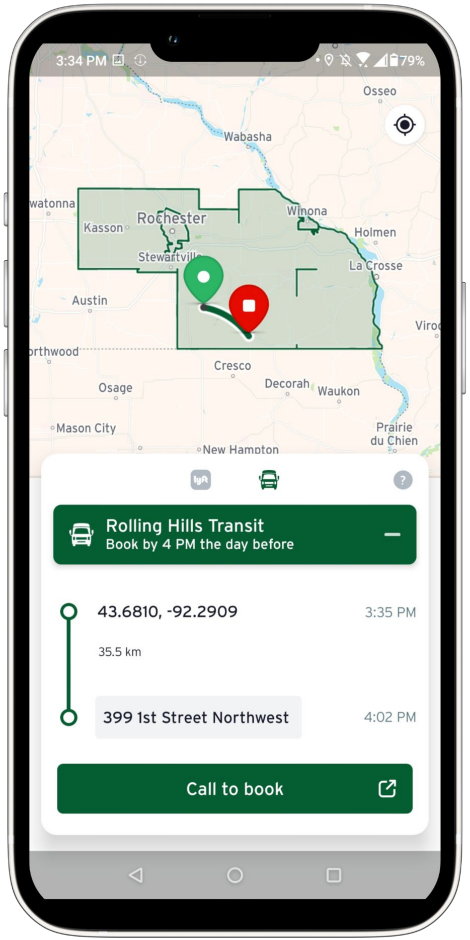
Not include - actual path, realtime info, “accurate” time duration, and transactional info

Zones

The vehicle can pickup/dropoff riders anywhere within a zone or between zones to serve demand-responsive requests



Example: [TURE TRANSIT](#) (MN, US)



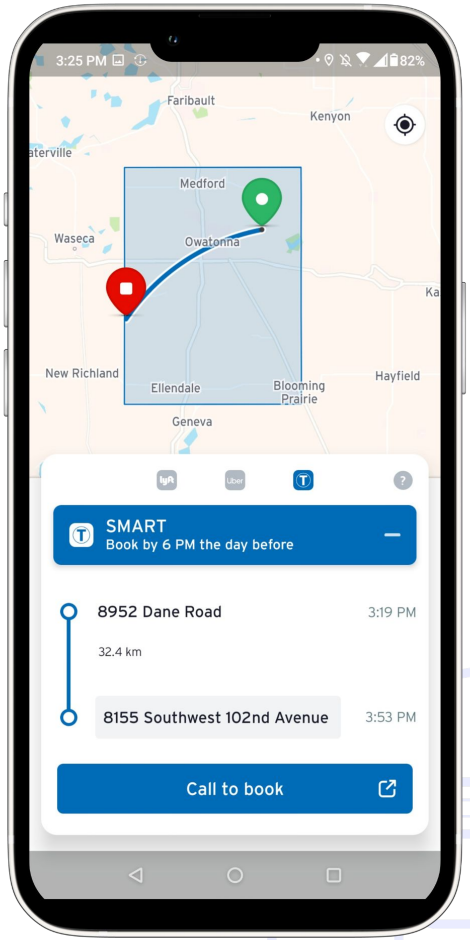
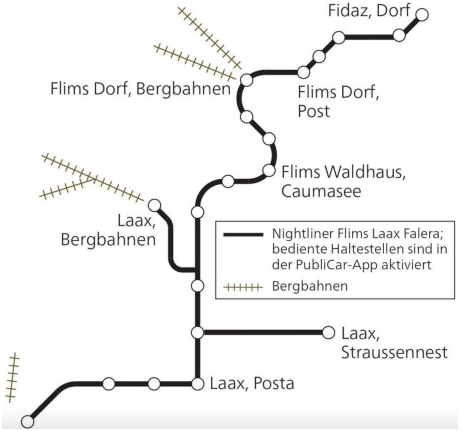


Image source: TransitApp

Point-to-point

The vehicle can pickup/dropoff riders at a certain point(or group of points) to serve demand-responsive requests



Example: [Flims Laax Falera Nightliner](#) (CH)

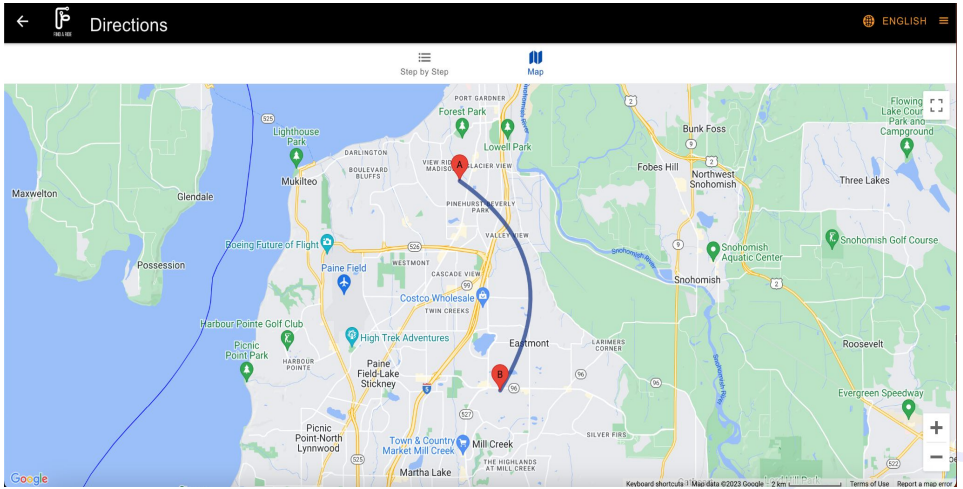
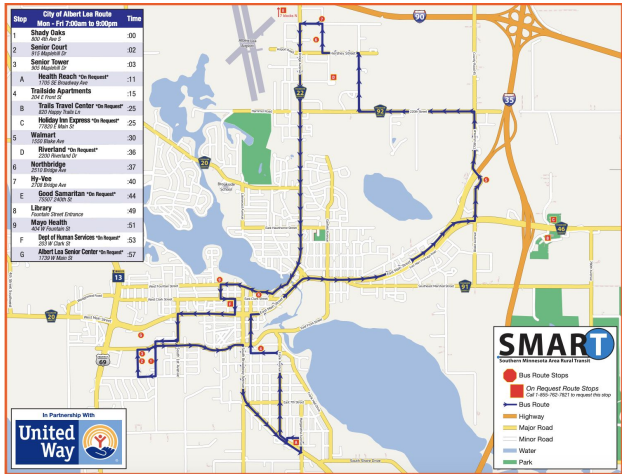


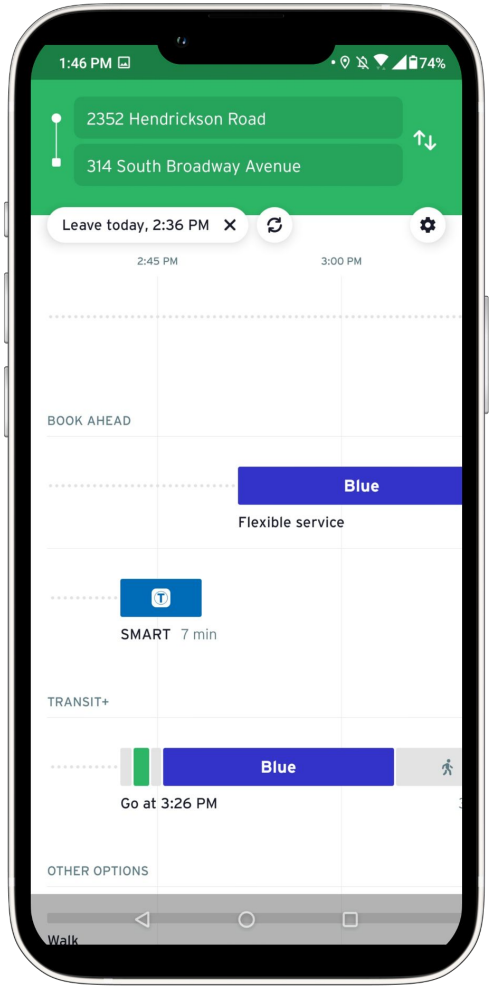
Image source: find-a-ride

Route Deviation

Fixed-route services where the vehicle can deviate to serve demand-responsive requests within a zone around the path



Example: SMART (MN, US)



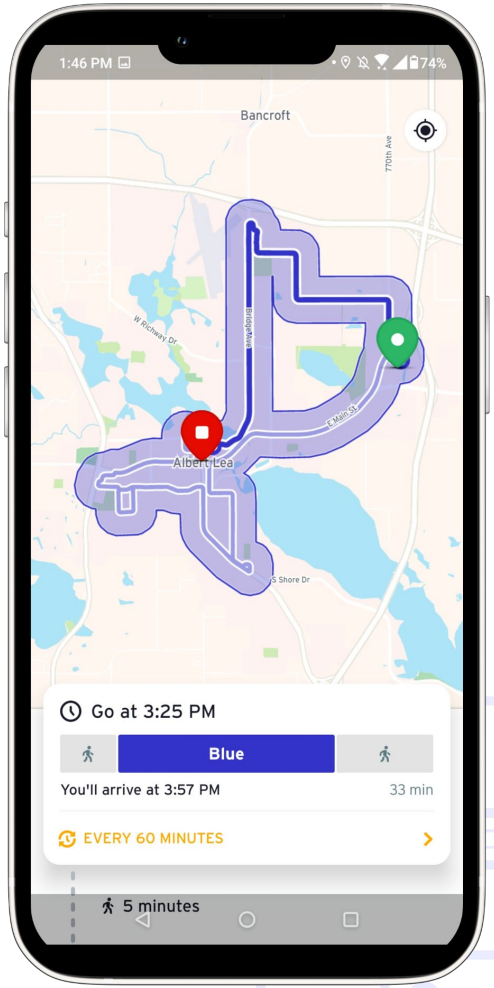


Image source: TransitApp

GTFS-Flex

Working on:

Next:

Improve estimated travel time

https://gtfs.org/extensions/flex

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- **Define GTFS features**
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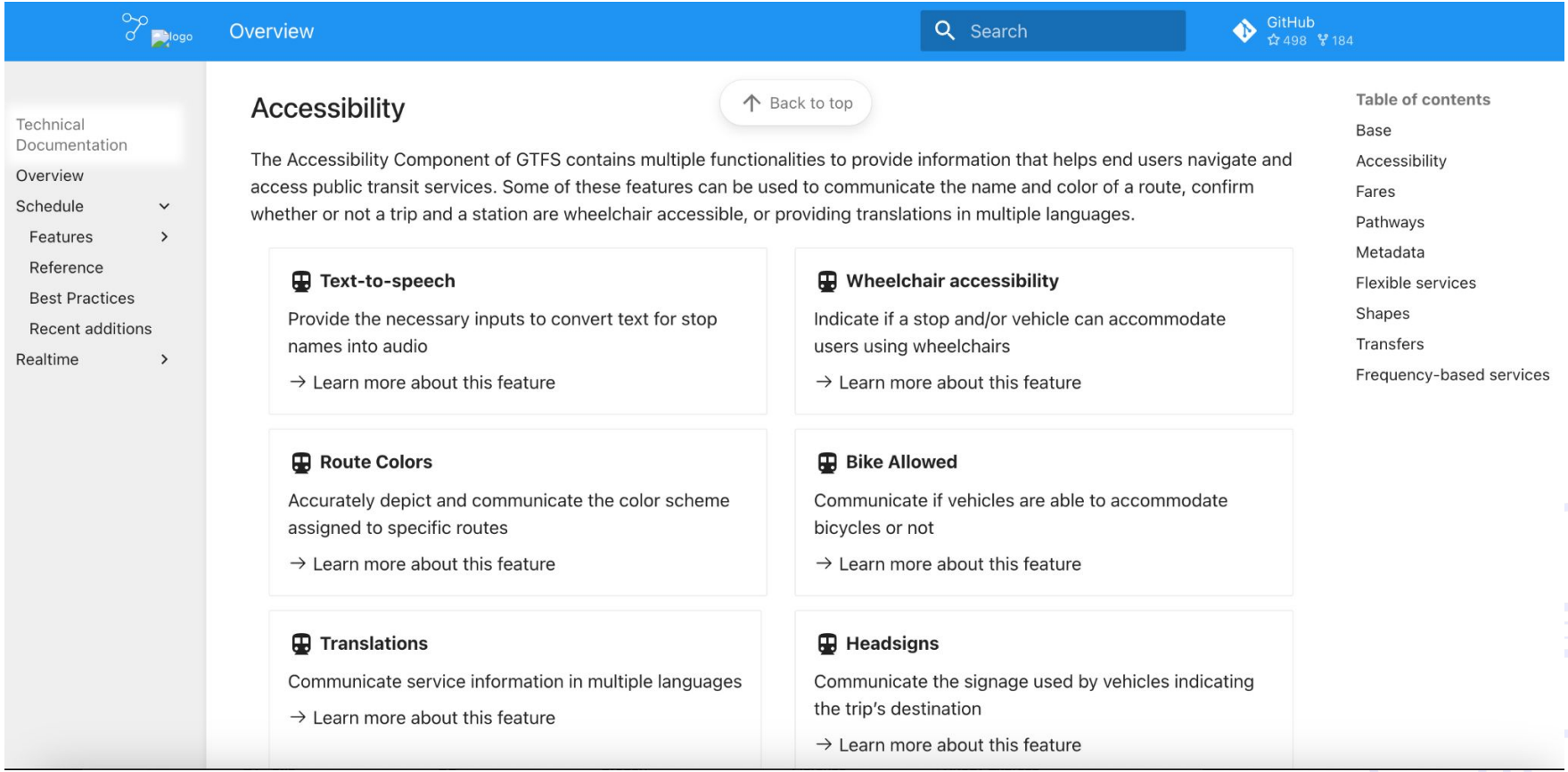
- Tools (Mobility Database, GTFS Validator)

GTFS features

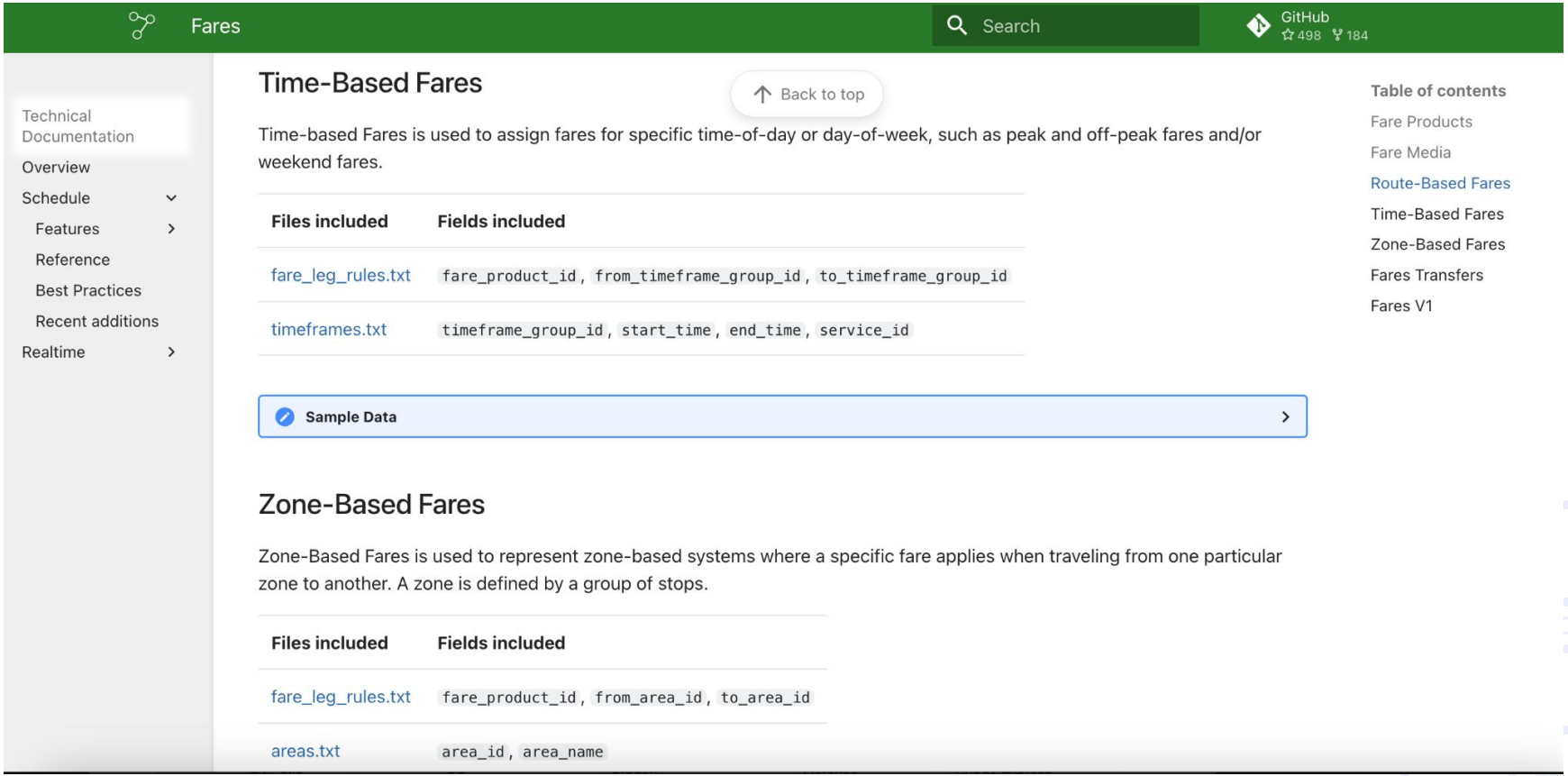
As GTFS is growing, it is becoming increasingly hard to understand what can be represented with GTFS.

- Easier to know what's possible to represent with GTFS
- Consumers and vendors can share with the community the list of features they support in an efficient way
- Tracking the production of feature on the Mobility Database using the Canonical GTFS Validator
- Allow organizations to require certain features

GTFS features



GTFS features



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Improve GTFS governance process

- High barrier to entry
- Insufficient engagement in the proposals in the early stages of development.
- First adopters are frequently impacted by last-minute changes to their implementation, leading to an increase in committed resources.

Improve GTFS governance process

Phase 1 - Effective communication and GitHub management

- Publication of a monthly “GTFS Digest”
- Using GitHub issue templates and labels

Phase 2 - Enhancing voting and reviews

- Adding an earlier vote to increase the visibility and potential issues of a proposal early-on
- Incorporating review guidelines

Phase 3 - Fast track process for smaller changes

- Adding a lightweight process for smaller changes
- Other editorial changes on the spec amendment process

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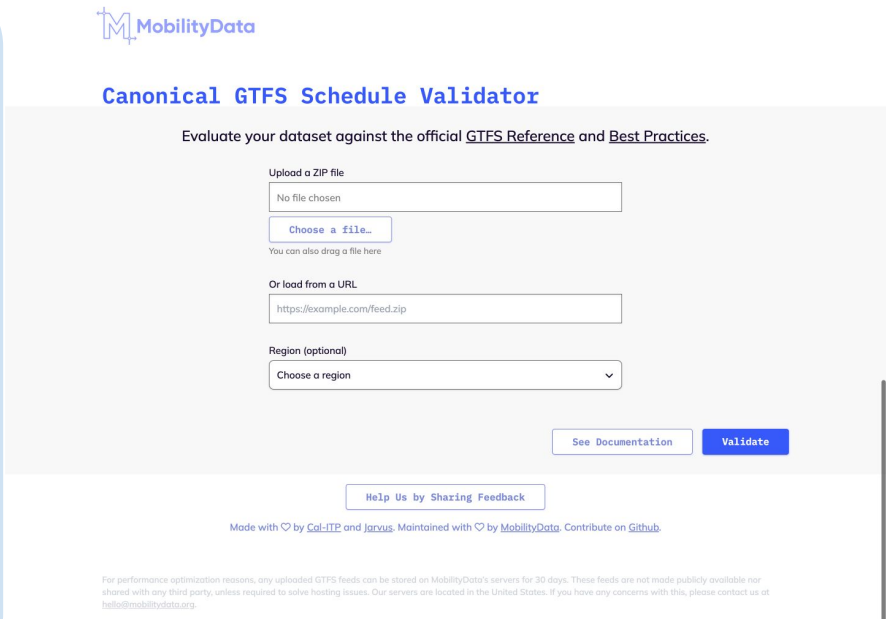
Tools

Vision: Improve the quality of GTFS data internationally through increased **transparency** and **collaboration**.

GTFS Schedule Validator

- Command line, web and desktop tool to use to see if your feed complies with GTFS
- **Transparent, canonical list of** data quality issues according to the spec
- Regularly updated to include new spec extensions and improvements (e.g. Fares v2)
- Includes GTFS features

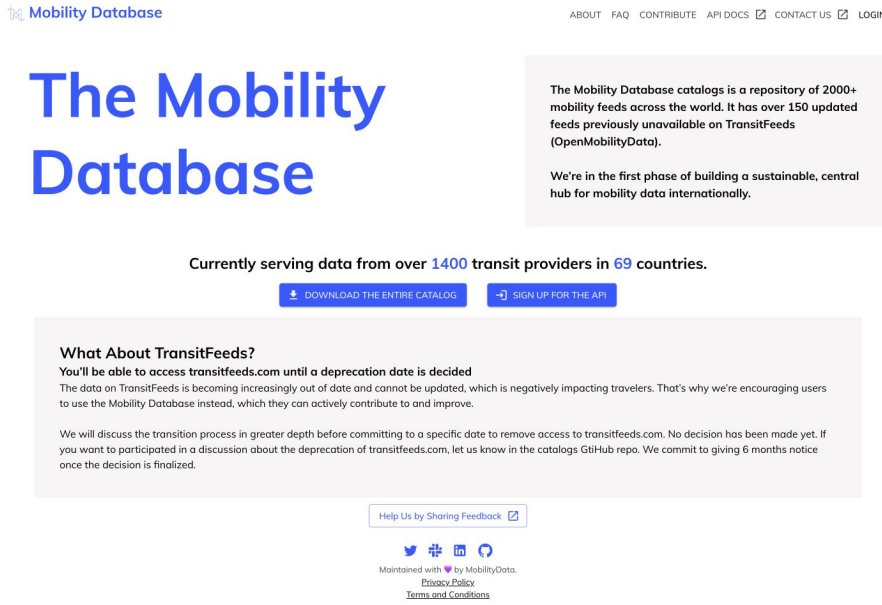


Tools

Vision: Improve the quality of GTFS data internationally through increased **transparency** and **collaboration**.

Mobility Database

- Directory of 2000+ GTFS feeds from around the world (11 from Japan)
- Spreadsheet and API
- By end of 2024: include validation reports and user interface
- Improve collaboration between producers and consumers by publicizing feeds and their data quality



Membership

🏅 Benefits

- ➔ Members only events, networking
- ➔ Member resource library, newsletter, Free tickets for workshops
- ➔ For higher levels: Organizational voting rights, personalized onboarding

✨ New! Members Directory

- ➔ Feature your projects and activities
- ➔ Browse through our network
- ➔ 120 members on all continents

https://share.mobilitydata.org/Membership-form

MobilityData presents

The 2024 International Mobility Data Summit

Fall 2024 (October 30, 31)

Montréal, Québec, Canada