

Better Public Transport Information in Thailand

by Ruslan Doga and Rail Akhmetov

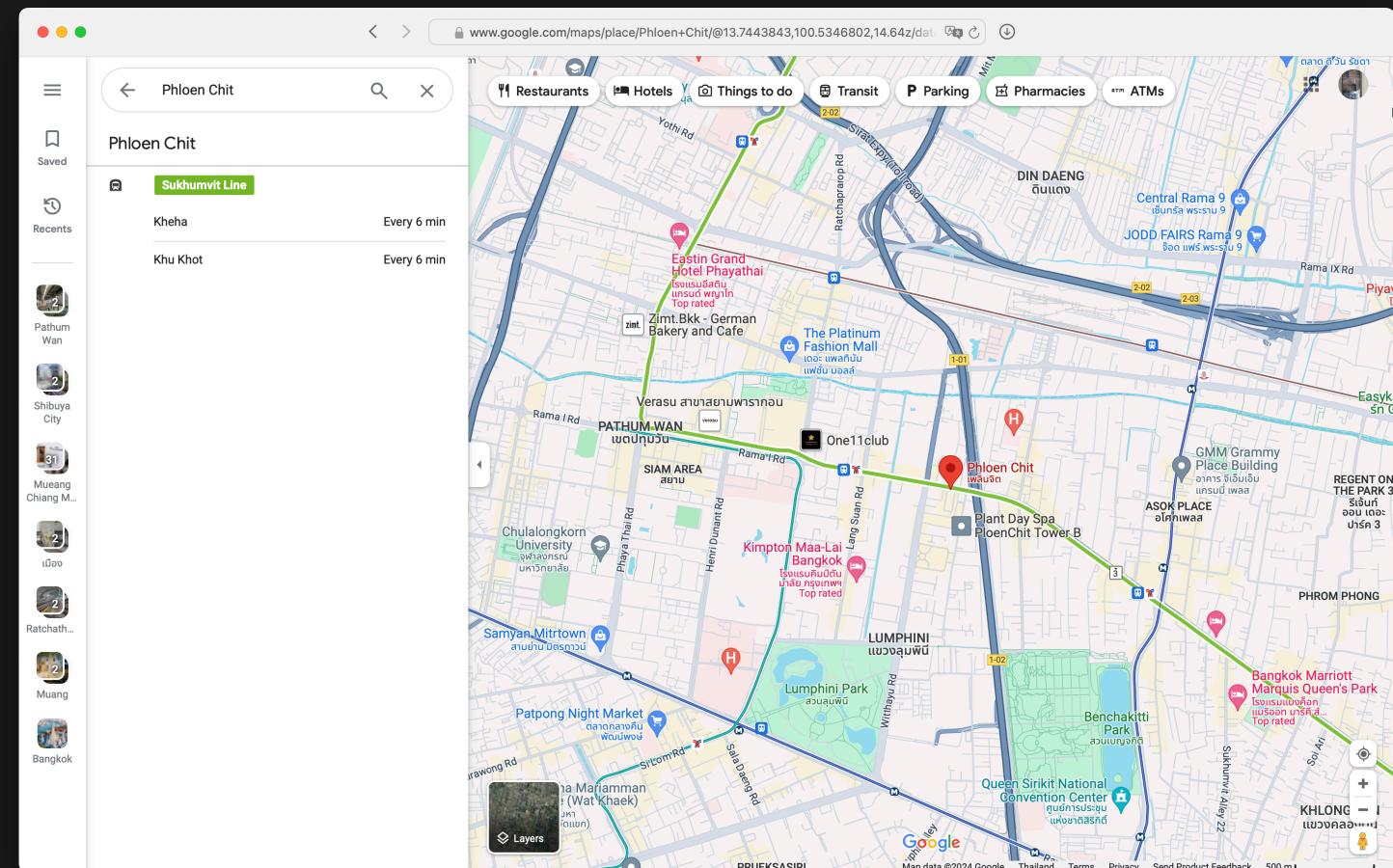
Executive Summary

Our goal is to improve public transport information in Thailand. We will create a [GTFS](#) data management platform and a [GTFS](#) and [GTFS-RT](#) serving platform.

We plan to work with Thai government agencies and integrate the system with [Google Maps](#) through the [Google Transit](#) program. This will provide accurate and easy-to-access public transport information, making life better for residents and tourists.

tl;dr

We want to transform
Google Maps in Bangkok
from this ...



... to something more like
this!

Shibuya Station

Den-en-toshi Line

For Futakotamagawa
12:28 PM Churinkan
12:33 PM Churinkan
12:38 PM Churinkan

Semi-Express
Local
Express

Fukutoshin Line

For Ikebukuro
12:25 PM Kotesashi
12:30 PM Shakujii-koen
12:34 PM Kawagoeshi

F Liner Express
Local
Local

Ginza Line

For Ueno
12:24 PM Asakusa
12:28 PM Asakusa
12:32 PM Asakusa

Local
Local
Local

Hanzomon Line

For Oshiage
12:27 PM Oshiage
12:32 PM Kuki
12:37 PM Oshiage

Local
Express
Local

Inokashira Line

For Kichijoji
12:28 PM Kichijoji
12:29 PM Kichijoji
12:36 PM Kichijoji

Express
Local
Express

Narita Express

Restaurants Hotels Things to do Transit Parking Pharmacies ATMs

www.google.com/maps/place/Shibuya+Station/@35.6578465,139.6949493,14.8z/data=t

Shibuya Station

Shibuya City 渋谷区

Yoyogi-heehiman Yoyogi-kōen Yoyogi Park

Shibuya Parco

ちくわ CAFE (Chiku Chiku cafe)

Monkey Kart Shibuya Shop 2

Meguro Sky Garden

DAIKANYAMACHO

Ebisu

Naka-meguro Sta.

Yebisu Garden Place Tower

Google

Map data ©2024 Google Thailand Terms Privacy Send Product Feedback 500 m

What is GTFS?

The General Transit Feed Specification (GTFS) Schedule provides essential, static data for transit systems. This includes:

- **Routes and Stops:** Information on where to catch buses or trains.
- **Schedules and Frequencies:** Clear timetables to help plan trips.
- **Fares:** Upfront details on journey costs.
- **Flex Routes:** Options for demand-responsive transportation.

What is GTFS-RT?

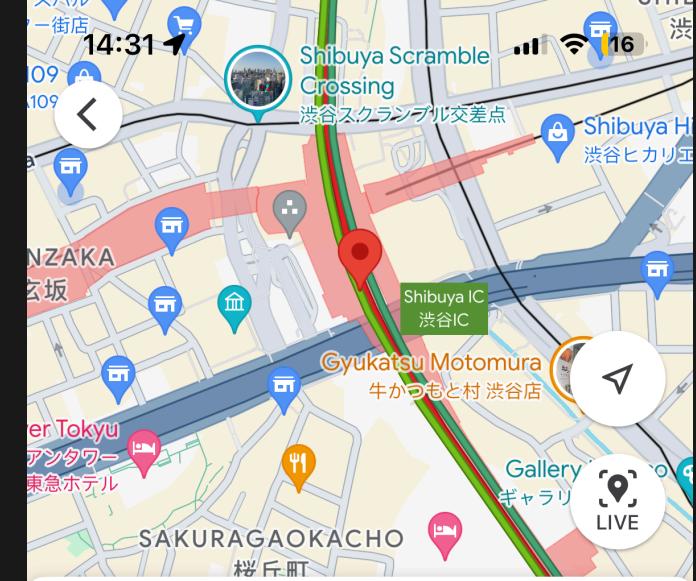
GTFS Realtime offers live updates on public transit, ensuring riders are always informed with:

- **Vehicle Locations:** Real-time tracking of buses and trains, so passengers know exactly where they are.
- **Arrival Times:** Accurate predictions to prevent missed connections.
- **Service Alerts:** Notifications about any service disruptions, allowing passengers to adjust their plans.

GTFS in Action

The next few slides would show how GTFS data shows up on Google Maps in Tokyo.

Static GTFS Schedule shows this



Shibuya Station

Live: A little busy >

More Info

Directions

Save

Den-en-toshi Line

Fukutoshin Line

Ginza Line

Den-en-toshi Line For

Futakotamagawa

Scheduled · 16:33 · Platform 1 · Express



Yamanote Line For Shinagawa /

Tokyo (Counter-Clockwise)

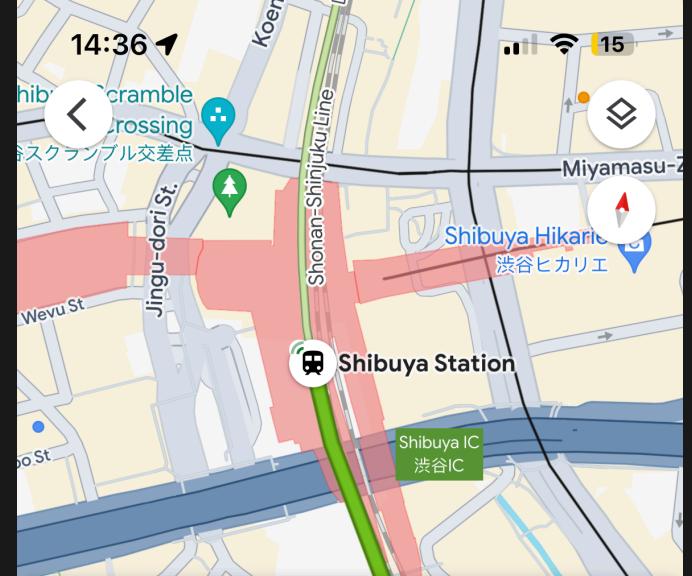
On time · 16:33 · Platform 2 · Local ·

Hanzomon Line For Oshiage

Scheduled · 16:33 · Platform 2 · Express



Then GTFS-RT matches the scheduled time with real train location and shows its position together with the estimated arrival time.



JY Yamanote Line

Shibuya Station 16:38

JY 20
Shibuya Station
Live: A little busy

JY Yamanote Line For Shinagawa / Tokyo (Counter-Clockwise) 16:38
On time · in 2 min · Platform 2 · Local

What's it like on board?

✓ Accessible ▾ Very crowded ▾ M

Also in 7 min & 12 min

Save 16:43 · 5 min

This screenshot shows the detailed information for a Yamanote Line train at Shibuya Station. It includes the train number (JY 20), current status (Live: A little busy), and estimated arrival time (16:38). The train is described as being on time, with 2 minutes until arrival at Platform 2. The interface also provides information about accessibility and crowding levels, and suggests other arrival times. At the bottom, there are buttons for saving the route and viewing the total travel time (5 minutes).

If GTFS-RT reports that the train is running late
Google Maps clearly shows that in the UI.

13	JY	Departed late · 13 min ago	Platform 6	16:32
14	JY	Mejiro Station Departed late · 11 min ago	Platform 1	16:21
15	JY	Takadanobaba Station Departed late · 9 min ago	Platform 2	16:23
16	JY	Shin-Ōkubo Station Departed late · 6 min ago	Platform 2	16:25
17	JY	Shinjuku Station Departed on time · 5 min ago	Platform 14	16:27
18	JY	Yoyogi Station Departed late · 2 min ago	Platform 2	16:29
19	JY	Harajuku Station Departed on time · 1 min ago	Platform 1	16:31
20	JR	Shibuya Station On time · now	Platform 2	16:33
21	JY	Ebisu Station On time · in 3 min	Platform 2	16:36
22	JY	Meguro Station On time · in 5 min	Platform 1	16:38

If GTFS-RT reports that the train is running late,
then Google Maps clearly shows that in the UI.

14:34 15

JY Yamanote Line

Shibuya Station 16:38

JY 20 Shibuya Station
Live: A little busy

JY Yamanote Line For Shinagawa / Tokyo (Counter-Clockwise) 16:38

On time · in 3 min · Platform 2 · Local

What's it like on board?

✓ Accessible ▾
 Very crowded ▾ M

Also in 9 min & 14 min

Ride 2 stops (5 min)

JY 22 Meguro Station 16:43

Live: A little busy

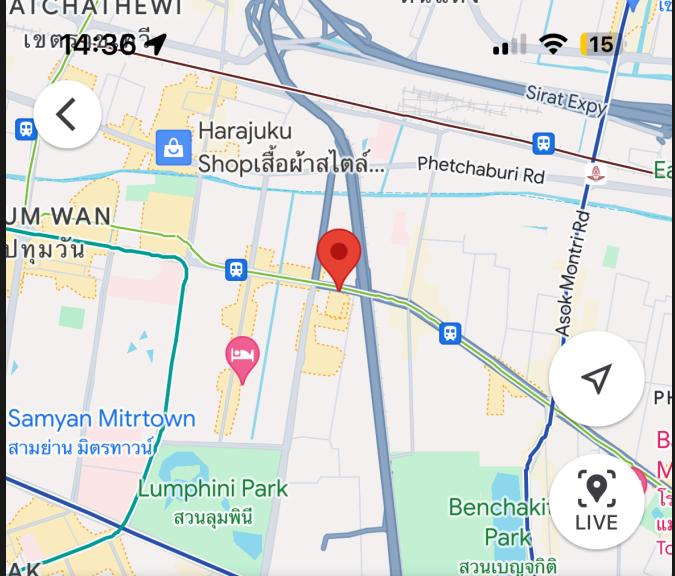
Meguro Station 16:43

Cost: IC ¥167

Add to Calendar

Save 16:43 · 5 min

Google Maps attempts to interpolate BTS timetable from bts.co.th.



Phloen Chit

Live: Not too busy >

[More Info](#)

[Directions](#)

[Save](#)

Sukhumvit Line Khu Khot
Now
Scheduled · 14:37 · Platform 2 · ⚡ 2min

Sukhumvit Line Kheha
5 min
Scheduled · 14:42 · Platform 1 · ⚡ 2min

Sukhumvit Line Khu Khot
7 min
Scheduled · 14:43 · Platform 2 · ⚡ 2min

Sukhumvit Line Kheha
11 min
Scheduled · 14:48 · Platform 1 · ⚡ 2min

Company

We plan to start a company with the mission to enhance public transport information in Thailand. Our focus will be on creating simple and effective solutions to improve the accuracy and availability of transport data.

Mission

To provide accurate and accessible public transport information in Thailand through Google Maps integration, making it easier for people to use and rely on public transportation.

Vision

A future where Google Maps provides passengers with accurate, real-time public transport information, including train locations, timetables, fares, and delay updates. This will ensure that the online information matches the real-world excellence of the BTS system!

Team

- Ruslan Doga: Co-Founder - responsible for overall product strategy and development.
- Rail Akhmetov: Co-Founder - responsible for identifying new business opportunities, partnerships, and strategic alliances.

Products

- GTFS Data Management Platform
- GTFS-RT Data Collection and Serving Platform
- (Optional) Mobile App for Bus Drivers

GTFS Data Management Platform

A simple and user-friendly platform tailored for Thai transit agencies to provide accurate public transport information for Google Maps.

1. Government officials use a website to enter and update their transport information.
2. The platform converts this data into a [GTFS Schedule archive](#).
3. [Google Transit](#) pulls the GTFS Schedule archive.
4. The schedule information is then displayed on [Google Maps](#) as static data, including timetables, ticket fares, and more.

GTFS-RT Data Collection and Serving Platform

A platform integrated with public transport operators to collect and provide real-time location data for Google Maps.

1. Real-time data, such as raw GPS data from BTS trains, is collected.
2. The platform transforms this data into a [GTFS-RT feed](#).
3. [Google Transit](#) pulls the GTFS-RT feed.
4. The real-time information is displayed on [Google Maps](#) as dynamic data, including current train locations and estimated arrival times.

(Optional) Mobile App

A potential Android app designed to collect real-time location data from buses that do not have built-in GPS.

1. Bus drivers install the Android app on their smartphones.
2. The app is manually activated when the bus is in operation.
3. The app collects real-time GPS data from the smartphone.
4. The app sends the GPS data to [the real-time platform](#).
5. The real-time information is displayed on [Google Maps](#) as dynamic data, including current bus locations and estimated arrival times.

Innovation: Accurate Timetables

Our approach provides accurate, up-to-date timetables for Google Maps in Bangkok.

Currently, Google Maps either shows BTS train departures as "every 6 min" (web) or interpolates them (iOS, Android), which is misleading. We ensure precise schedule information, improving user experience.

Innovation: Real-Time Data

Currently, Google Maps does not display real-time train locations, nor does it provide updates on delays or schedule accuracy. Our approach integrates real-time data for buses and trains, filling this gap with accurate, live information. This ensures users have up-to-date details on vehicle locations and any schedule changes.

Other Innovations

- **User-Friendly Tools:** An intuitive website for officials and a mobile app for bus drivers to efficiently collect and manage GTFS data.
- **Seamless Google Maps Integration:** Ensures all data integrates smoothly with Google Maps, enhancing user experience.

Our project significantly impacts two key industries:

- - Improved Efficiency: By providing accurate and real-time data, we enhance the efficiency and reliability of public transport systems.
 - User Satisfaction: Passengers benefit from reliable information on schedules, real-time locations, and delays, leading to increased satisfaction and usage of public transport.
 - Operational Insights: Transport authorities can gain valuable insights from data analytics to optimize routes, schedules, and resource allocation.
- Tourism
 - Enhanced Experience: Tourists can easily navigate the public transport system with accurate, real-time information, making their travel experience smoother and more enjoyable.
 - Increased Accessibility: Better public transport information makes tourist attractions more accessible, encouraging more exploration and boosting local businesses.

Competition

While there are existing transport information providers, this project's focus on real-time data integration and collaboration with government agencies sets it apart. It would offer a more comprehensive and user-friendly solution.

Trends

Increasing urbanization and the need for sustainable transportation solutions are driving the demand for accurate and accessible transport information. Our platform aligns with these trends, offering timely and relevant solutions.

Also, Japan, Taiwan, and Singapore (countries that implemented GTFS-RT) seem like a good company.

Marketing Strategy

Our target customers are Thai government agencies initially, with plans to expand to other Southeast Asian countries. We will promote our platform through partnerships and demonstrations.

Sales Strategy

We will engage government agencies through direct outreach, showcasing the benefits of our platform. For long-term growth, we will explore commercial opportunities with transport operators and other stakeholders.

Financial Plan

Our platform would be completely self-funded. We have enough experience in this area to know what corners to cut, what needs building, and what is superfluous.

Exit Strategy

Potential exit opportunities include acquisition by a larger transport technology company or public offering.

Funds Required

I work for Pocari Sweat.

Revenue Model

Initially, our project would be non-profit, focusing on public service. In the long term, we will offer our platform as a paid service to other countries and commercial transport operators.

Growth Strategy

- **Phase 1:** Develop core platform, demonstrate real-time demo, and achieve Google Maps integration in a pilot city.
- **Phase 2:** Expand to other Thai cities and collaborate with the Ministry of Transport.
- **Phase 3:** Offer the platform as a paid service to other ASEAN countries.

Why Thailand?

We chose Thailand due to our appreciation for Bangkok's public transport and the opportunity to enhance its digital component.

Thailand's Benefit

- **Citizen Benefits:** Improved daily travel decisions and increased public transport use.
- **Tourism Boost:** Enhanced tourist experience, easier navigation, and improved Thailand's image as a modern destination.