

A pair of hands, one from the left and one from the right, are gently cupping a small, realistic globe of the Earth. The globe shows green continents and blue oceans. The background is a soft-focus image of a blue sky with white clouds. The overall tone is hopeful and environmental.

# TARA

by NewYug Technologies

Mentored by Goa IT Professionals

**Mission:**

***Make it convenient for every citizen to use Public Transport, saving fuel and protecting the environment.***

# Problem

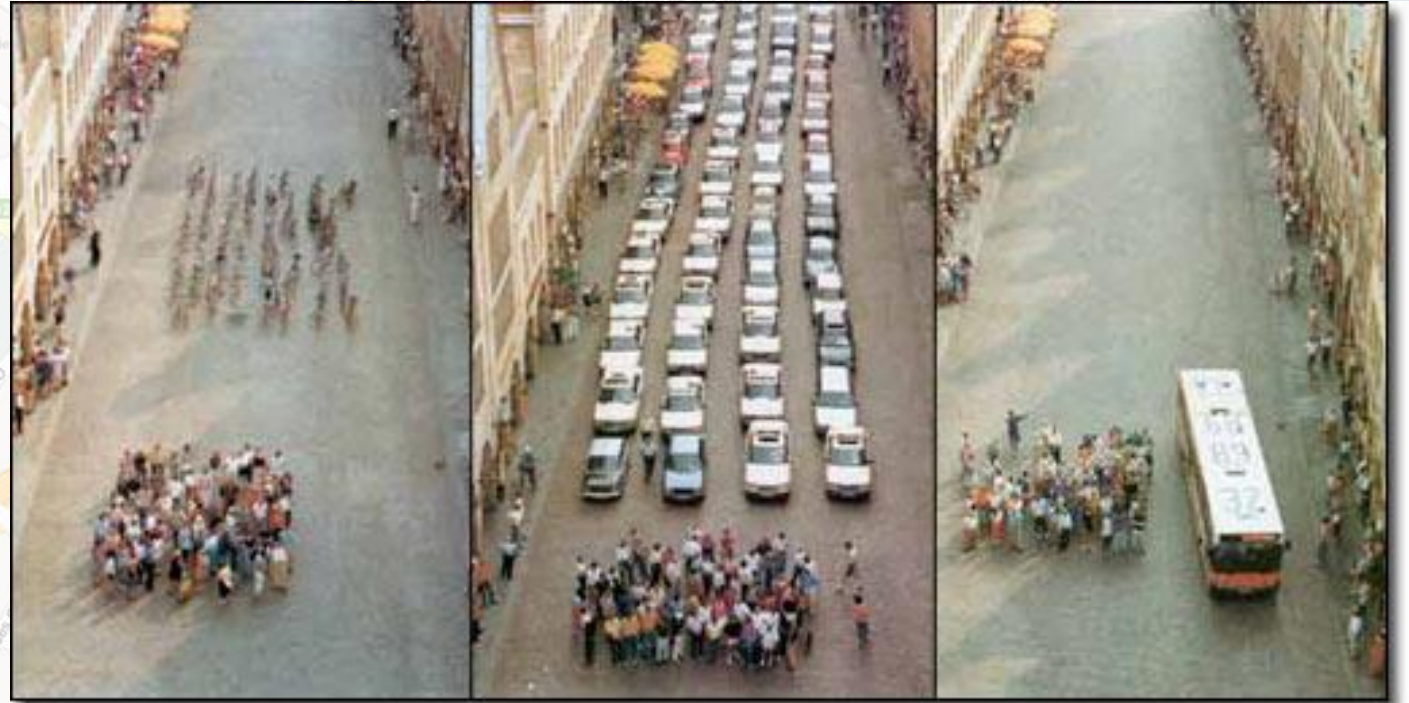
- Rampant rise in personal vehicles
- Major toll on the state's infrastructure, peacefulness and environment
- Lack of awareness of public transport options





# Solution

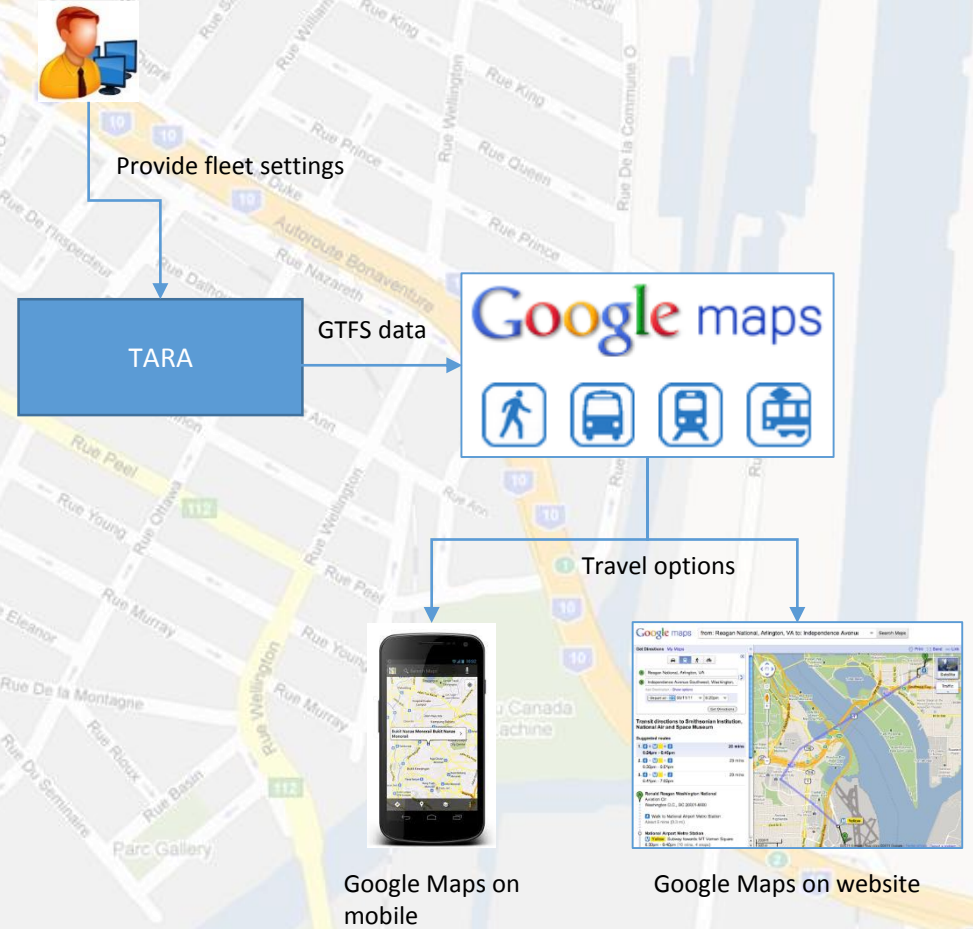
- Provide public transport timetables and boarding points to citizens
- Upload time-tables and boarding points to Google
- Google displays public transport options on map
- People will be able to plan their commute in advance
- Gradual decrease in use of personal vehicles





# Product – The TARA Project

- Transit Agency Route Administrator (TARA)
  - Allows the transit agency to visually define the details of their fleet such as stops, routes, trips and timings.
  - Allows the fleet details to be managed on a Google Map using a very intuitive User Interface that greatly simplifies the entire process of uploading the data to Google.
  - Is multi-tenant and hence allows employees of multiple agencies to simultaneously work on the same product.





# Passenger Experience on Google Maps

Mapusa Bus Stand, Mapusa, Goa 40...  
Panjim Bus Stand, Bus Stand, Panji...

22 min 17 min 2 hr 29

Depart at 4:21 pm

Route	Time
Panaji to Ma...	17 min
7:45 AM from Mapusa	
CONFIDENTIAL	
Panaji to Sa...	20 min
8:14 AM from Mapusa	
CONFIDENTIAL	
Panaji to Ma...	20 min
8:37 AM from Mapusa	
CONFIDENTIAL	
Panaji to Pa...	18 min
11:27 AM from Mapusa	
CONFIDENTIAL	

Timings for different trips from source to destination

Mapusa Bus Stand  
Panjim Bus Stand

20 min

17 min

7:45 AM Mapusa  
Panaji to Mapusa towards Panaji  
11 stops

8:02 AM Panaji

Kadamba Transport Corporation  
0832 243 8034

These directions are for planning purposes only. You may find that road works, traffic, weather or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Detailed display of chosen trip on a route

Mapusa, Goa 403507  
Panjim Bus Stand, Bus Stand, Panji...

27 min 37 min 2 hr 46

Depart at 4:28 pm

28 min

Step-by-step directions including different modes such as Walking, Ferries, and Buses.



# Our plus points

- A company in Europe offers similar service at an annual rate of 13 Lakhs for 250 routes.
- We are not aware of any other prominent company that provides an equivalent service in India.
- The TARA application provides a much more simplified user interface for data entry than the competing application.
- Unique features
  - Auto-completion of trip timings
  - Support for stops across either side of roads



# Achievements

- **Partnership with Kadamba and Goa Ferry Service**

- Got insights into operations of Transit agencies
- Gone Live on 3 Sep 2016
- Further Data entry in progress
- Started with data entry for Maharashtra State Transport Corporation

- **Future enhancements**

- Further Improve the User Interface.
- Include bus fare details on Google.
- Once the time-table data is digitized, it can be presented to citizens through multiple additional channels such as SMS, IVR, websites, etc.
- Passenger-experience can be further enhanced by providing real-time status updates of every trip provided the transit agencies install GPS devices.



# Points to note

- Data entry operators need training to perform data entry
- The best source of precise stop locations is a driver or a conductor
- Data entry is done most effectively from a bus depot where drivers or conductors are present
- Google performs extensive testing on uploaded data
- It takes about 6 months to make the data Live on Google





# TARA for Department of Transport - Goa

## Our approach

- Pull data from existing systems into TARA.
  - These may be Excel files or any other electronic format.
  - The files should have routes and timing information.
  - If such data is not available in electronic form, the TARA system allows manual data entry
- Train employees of Dept. of Transport to mark stop locations
- Drivers/Conductors assist employees to locate stops on a map.
- Data from TARA is exported to GTFS format expected by Google.
- Google shows data on Google Maps.



# Pricing

- At least 10% increase in passengers is expected
- Annual subscription for TARA service is based on number of routes
- Subscription cost for 1<sup>st</sup> year is decided based on amount of effort for uploading data.
- Subscription cost for 2<sup>nd</sup> year and following years is half the cost for 1<sup>st</sup> year.
- Assuming no data is available with the agency, all data is entered from TARA application
- If data is existent in another database, cost is significantly reduced



# Any questions?

- Contact us at [newyug@googlegroups.com](mailto:newyug@googlegroups.com)

