A Mobile Platform for TICO Ride Sharing

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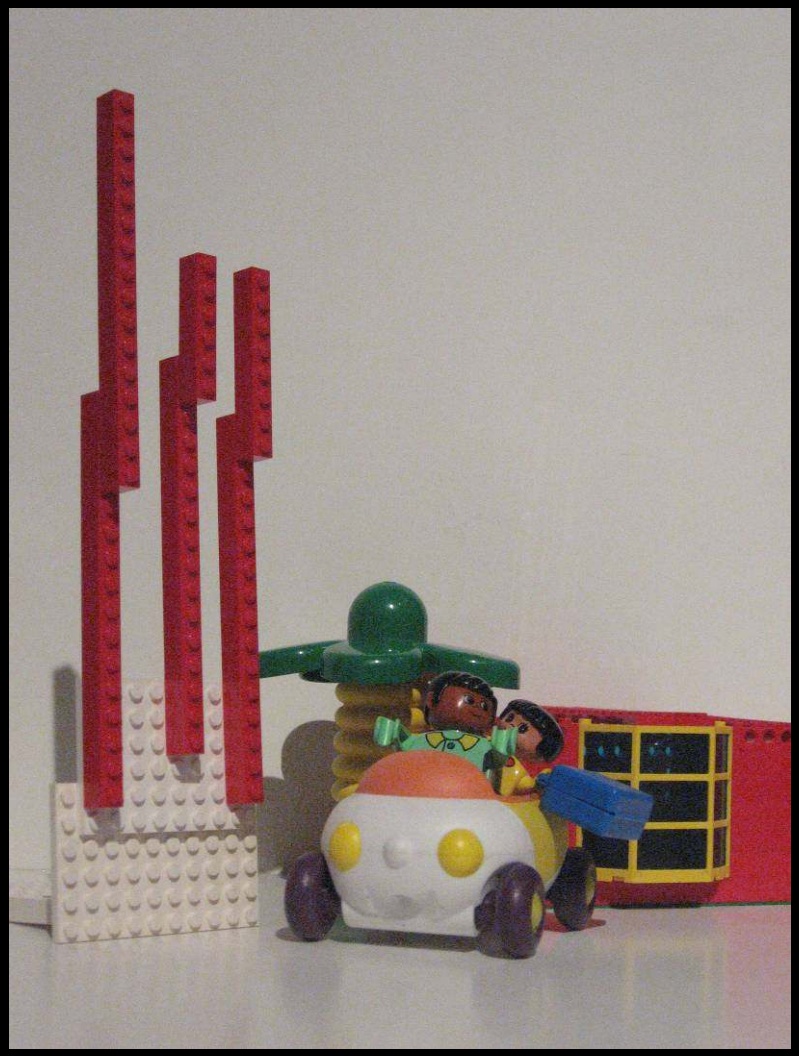
Ride Sharing Identification

Jose

Ride Sharing Identification

Pedro

Jose and Pedro drive past one of the system's towers



They arrive at the plant for work. Jose is a top worker.

Jose has to leave work early to pick up his son.

Jose arrives with Maria at the school.

Ride Sharing Identification

Jose

Ride Sharing Identification

Maria

Elevator Pitch

- Jose rides to work everyday with his friend Pedro. The two met through the Costa Rica Ride Share system. Before the Ride Share system Jose lived too far away from the plant to be able to work there. Now he rides to work most days with Pedro.
- Jose is one of the top workers at the plant. Before the system his boss always had trouble finding the best employees.
- Today he needs to leave early to go to pick up his son. For only a few cents a mile, Jose can get wherever he needs to go.
- The system enables him to text message in his required route and finds him a ride quickly.

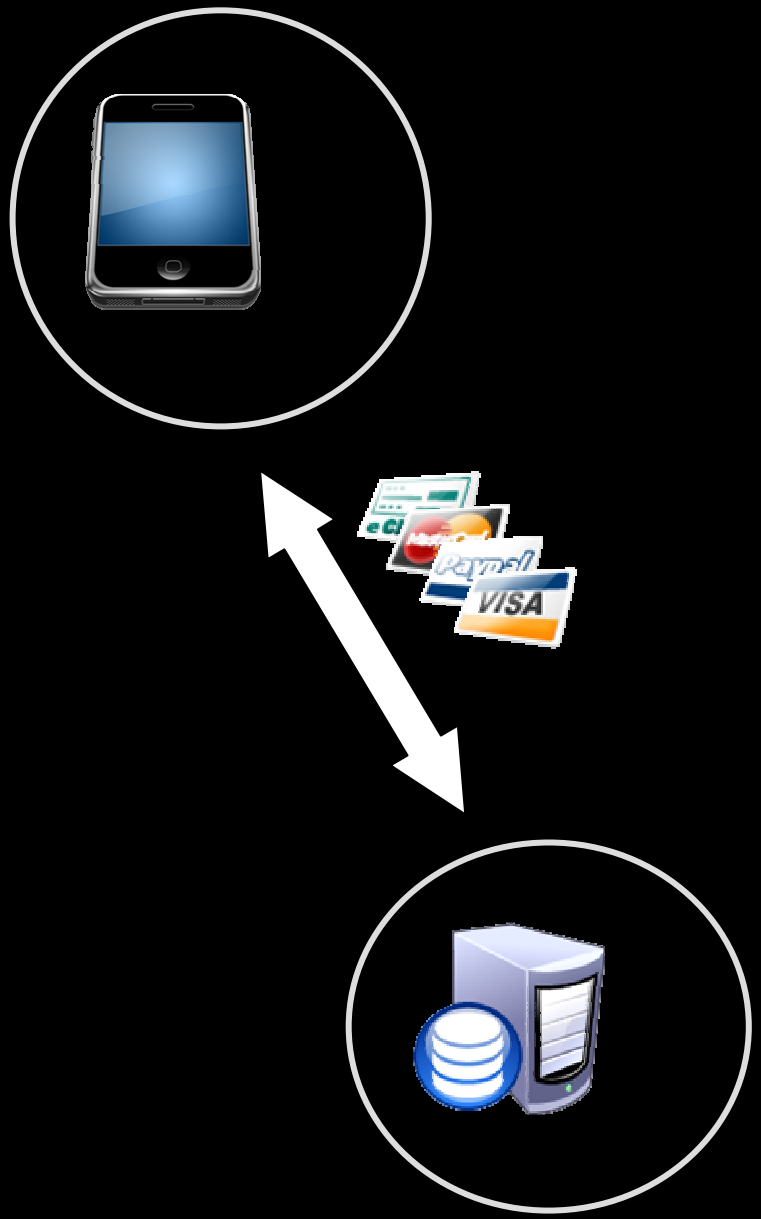
System Details

- Jose sets up his account online at work. He funds his account for the week and schedules his rides. Monday to Friday at 9 AM he needs a ride to work.
- The system sends ID information to his phone.
- When Pedro picks him up he authenticates using his Bluetooth phone. This way the systems knows to charge his account for the ride.
- Jose needs to leave work early. He texts in "cancel next ride" to cancel his existing ride home. He then texts "find ride from work to 10 memorial drive at 3 PM"
- He leaves the building and goes down to the Ride Share station. He checks in at the station using his card. If there multiple riders his order is determined by when he gets to the ride share station.
- When an available car comes into the area the system broadcasts a message. Jose then goes to the station to meet the ride.

RideSharing Tools

- RideBook
  - A web-based driver-rider matching system
  - Reservation function
  - Event Notification function
  - An infrastructure way (Internet)
- RideFinder
  - Standalone application on mobile devices to find drivers or riders in local area.
  - Communication functions (voice, text, personal broadcasting)
  - Event Navigator function (GPS + WiFi)
  - Emergency Ride
  - A hybrid way (infra + ad-hoc/mesh)

RideBook: Matching & Reservation



Who's my best driver/rider?

Rider

Ride Sharing Identification

Jose

1st Driver

Ride Sharing Identification

Pedro

2nd Driver

Ride Sharing Identification

Maria

1st trip

Time: 9 am – 11 am

Destination: San Jose city hall

Cost: $5

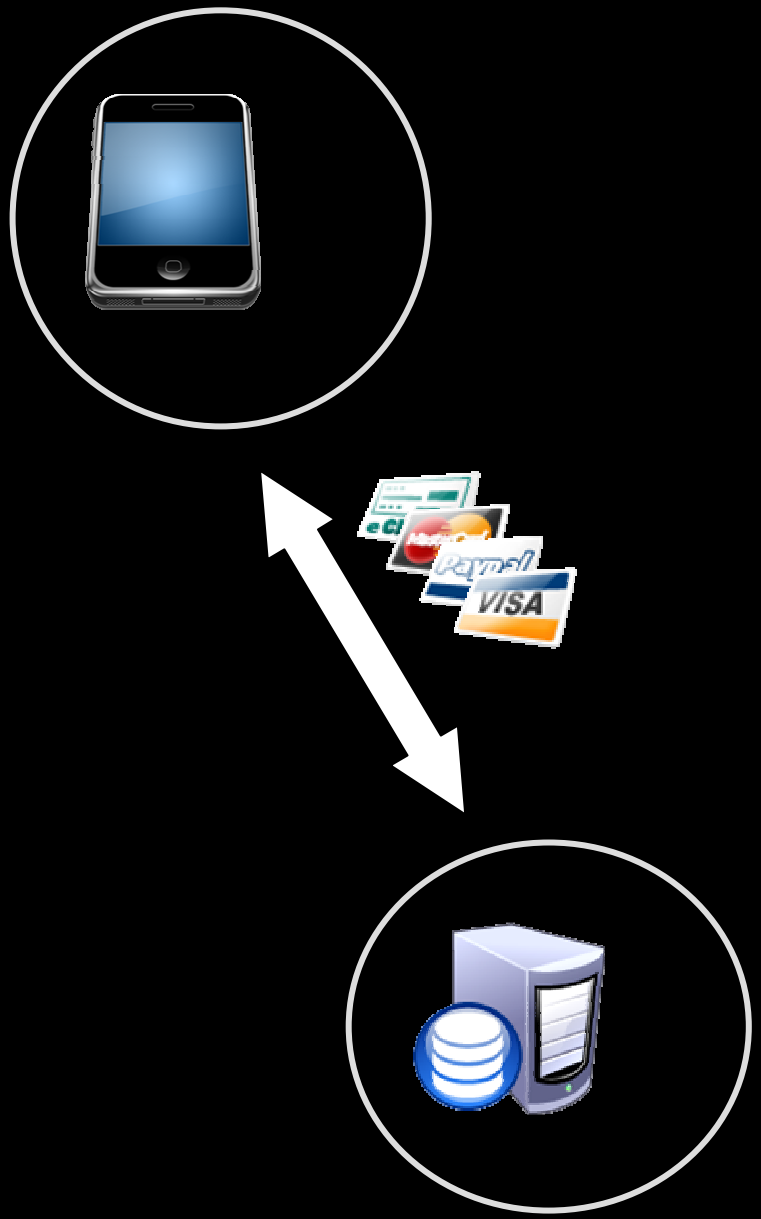
2nd trip

Time: 3 pm – 5 pm

Destination: kindergarten

Cost: $7

RideBook: Matching & Reservation



Choose your best driver/rider

Rider

Ride Sharing Identification

Jose

Time: 8:00 am

Pick-up: ● Here ○ Enter Pick-up Location…

Destination: Enter Destination…

Click for map

Event: Enter your events

Who: My Network

RideBook: Event Notification

Who's my best driver/rider?

Rider

Ride Sharing Identification

Jose

1st Driver

Ride Sharing Identification

Pedro

2nd Driver

Ride Sharing Identification

Maria

1st trip

Time: 9 am – 11 am

Destination: San Jose city hall

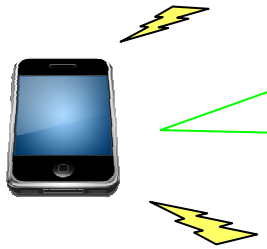
Cost: $5

2nd trip

Time: 3 pm – 5 pm

Destination: Playtogether kindergarten

Cost: $7

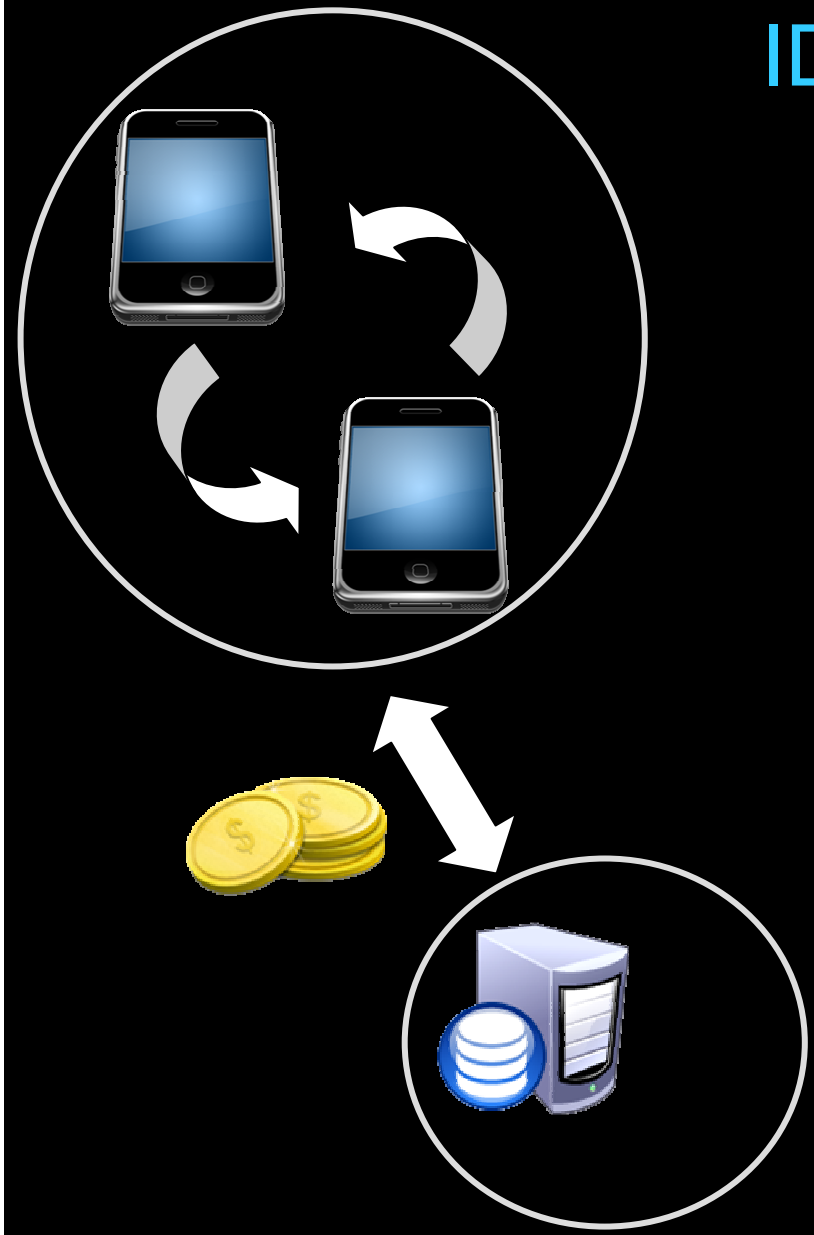


Your rider is Pedro and Maria. Please refer to his info on RideBook

RideFinder

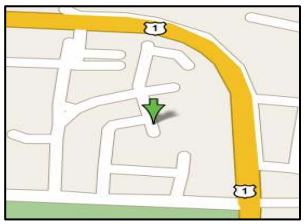
RideFinder

RideFinder:
ID Transaction & Accounting



Request for Ride Sharing

A trusted rider has requested a pick-up at:
Calle San Tomás 42, San José at 17h00



This trip is worth $0.80 to you

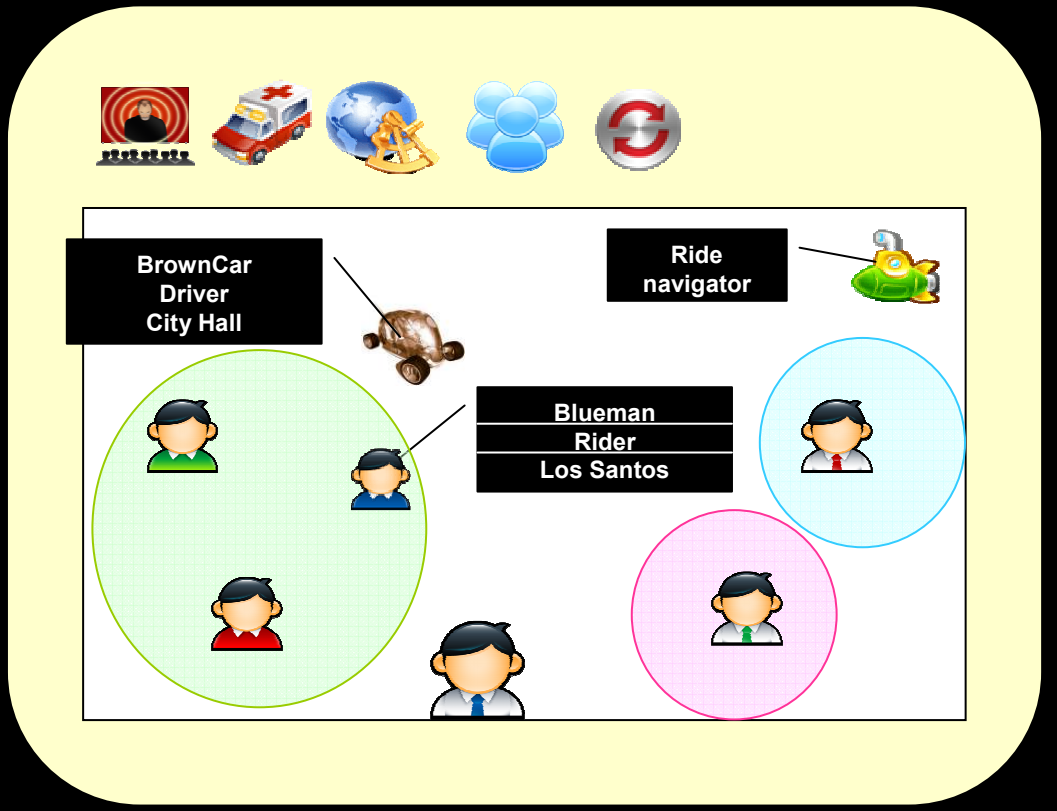
Accept

Ignore

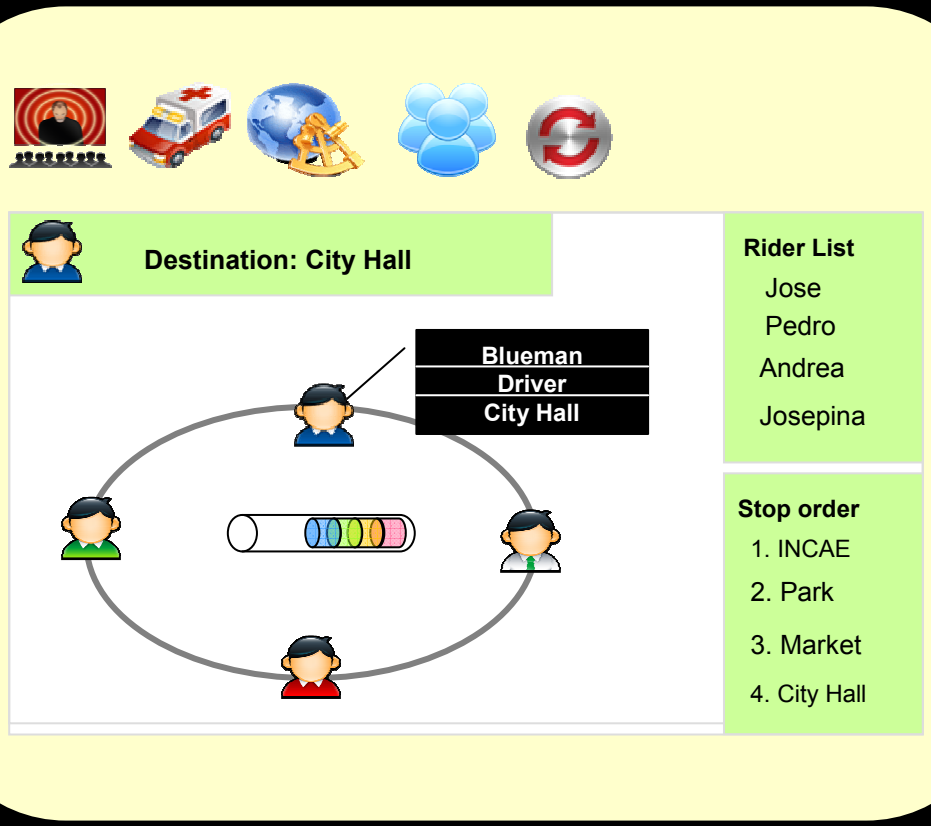
Ride Sharing Identification

Jose

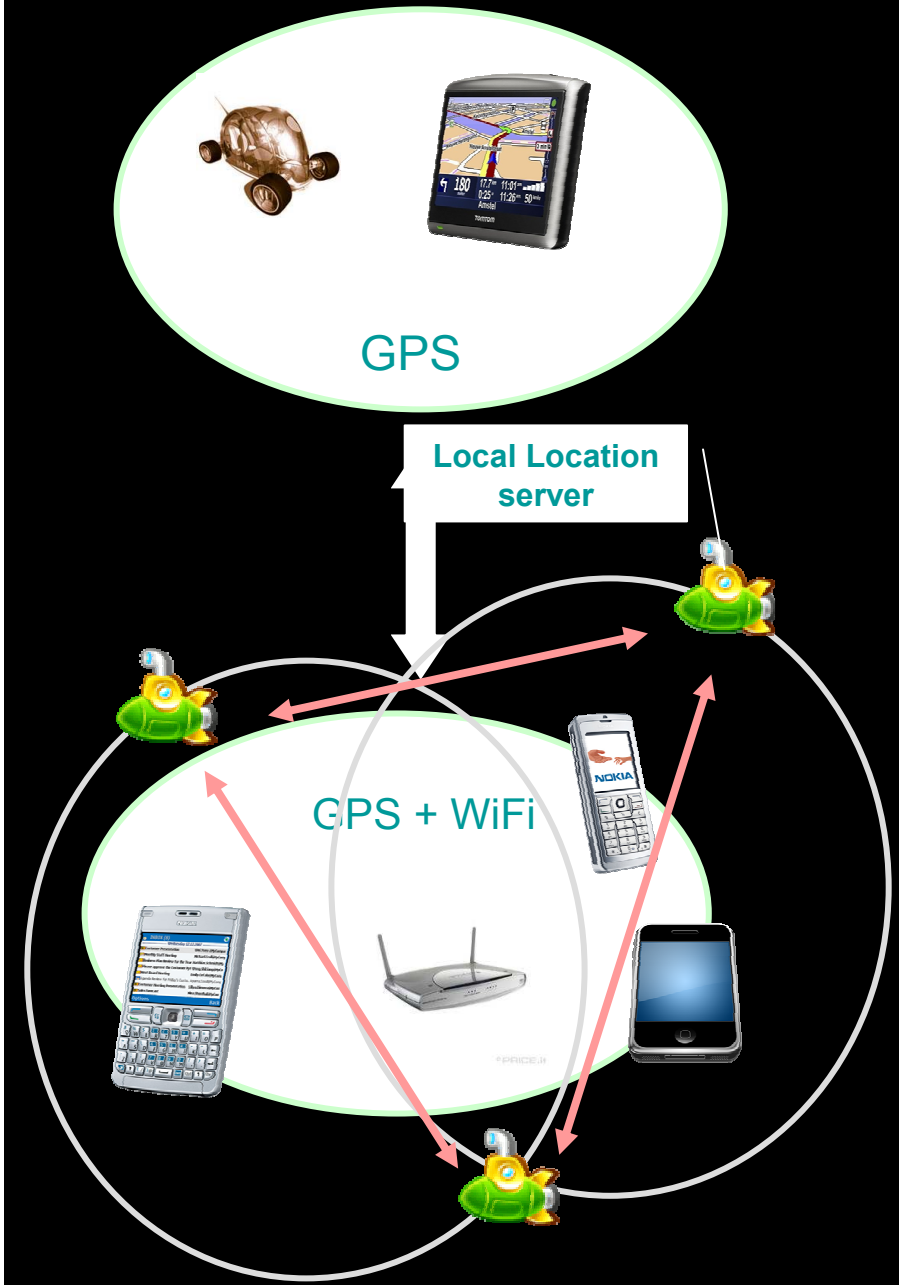
RideFinder: Finding Users at Station

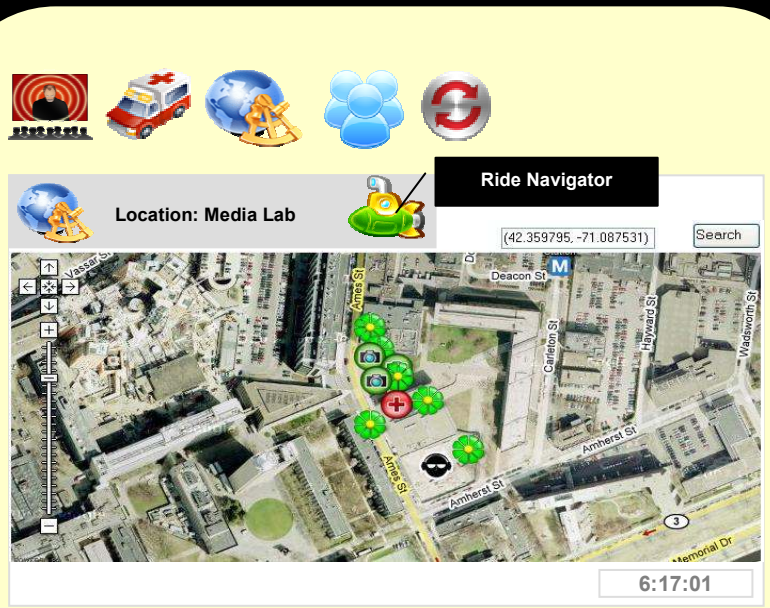


RideFinder:
Ad-hoc negotiation at Station

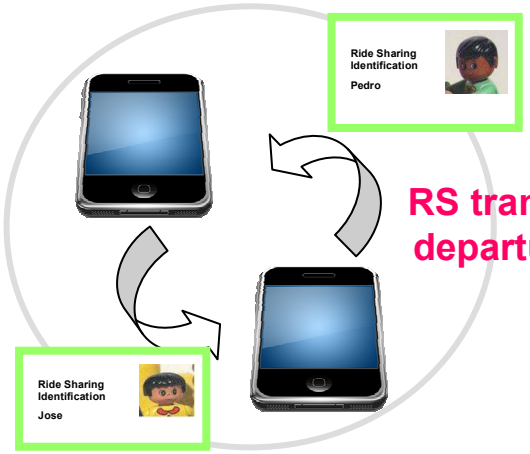


RideFinder: Tracking Location





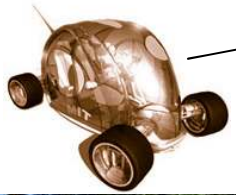
Scenarios



RS transaction at the departure (Check In)

RS station or stop

RS transaction at the destination (Check Out)



RS station or stop

Broadcasting user

RS event navigator

RS Events (7 people)

GSM Networks

Wi-Fi Networks

Your rider, Sandy arrived at the station!

Community server

I'm an ad-hoc rider…

Ride Request: SMS

Rider makes request

Appropriate drivers receive request

Ride Confirmation: SMS

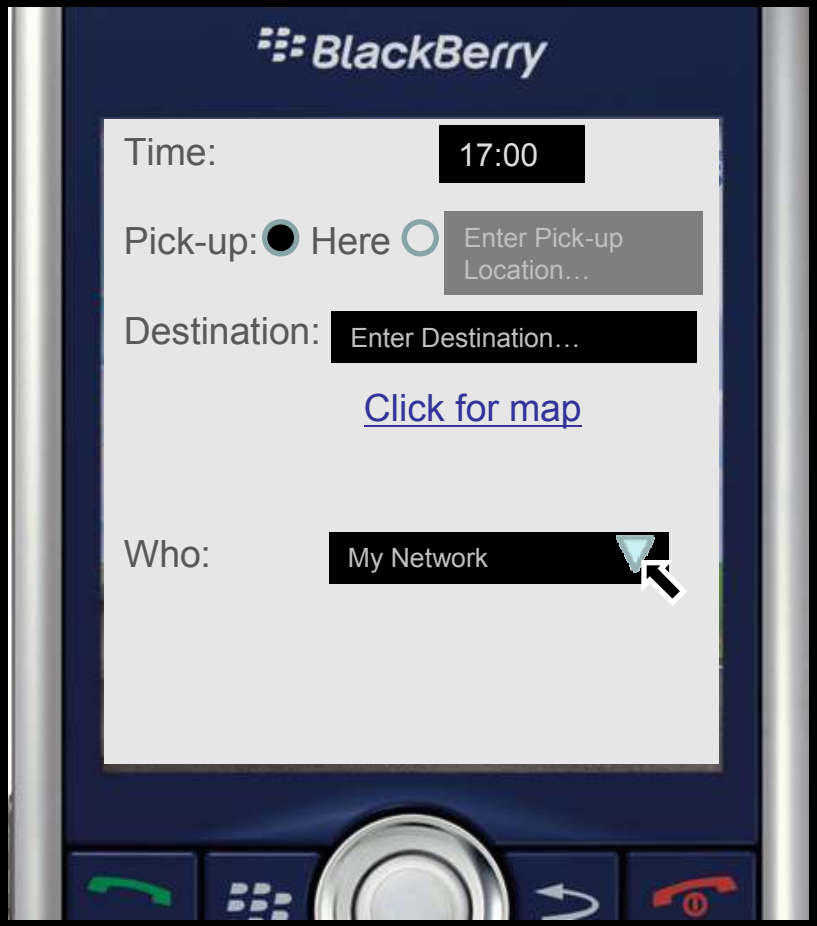
Rider receives confirmation

Ride Confirmation: SMS

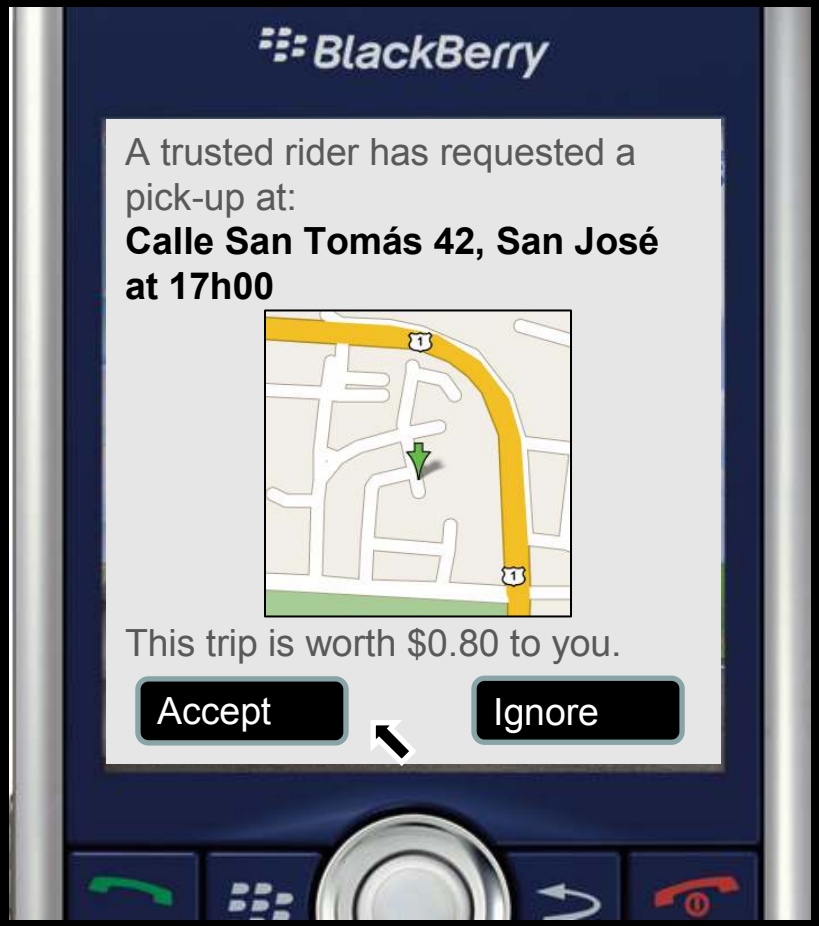
Driver receives confirmation

Ride Request: Phone App

Rider makes request

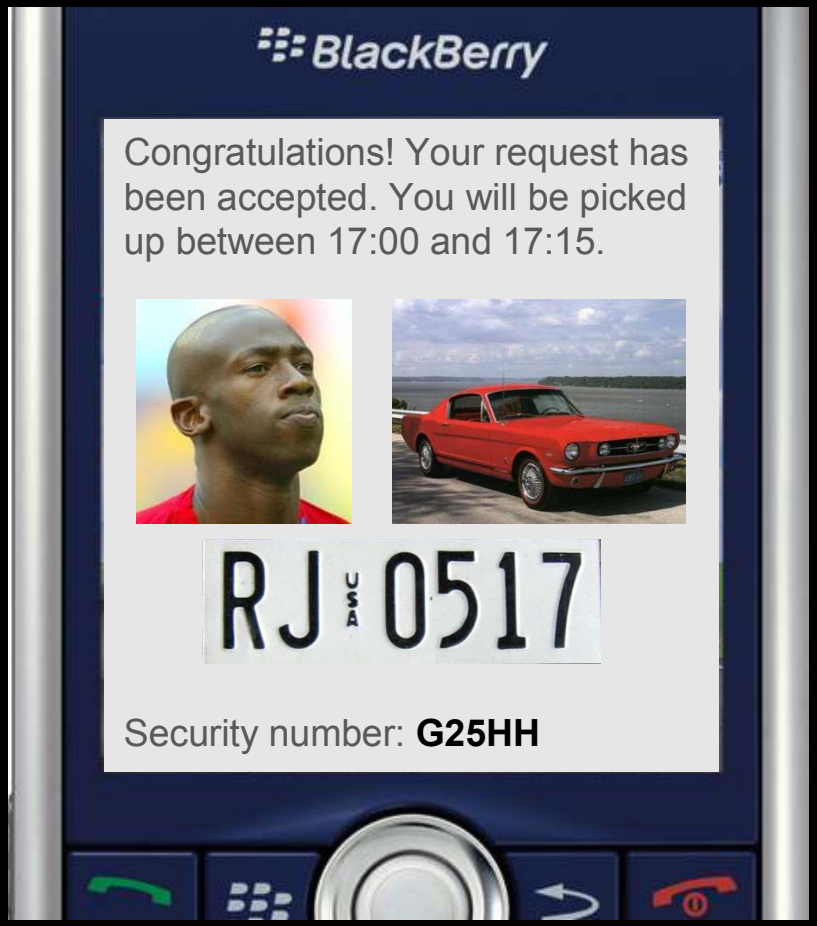


Drivers receive request



Ride Request: Phone App

Rider receives confirmation



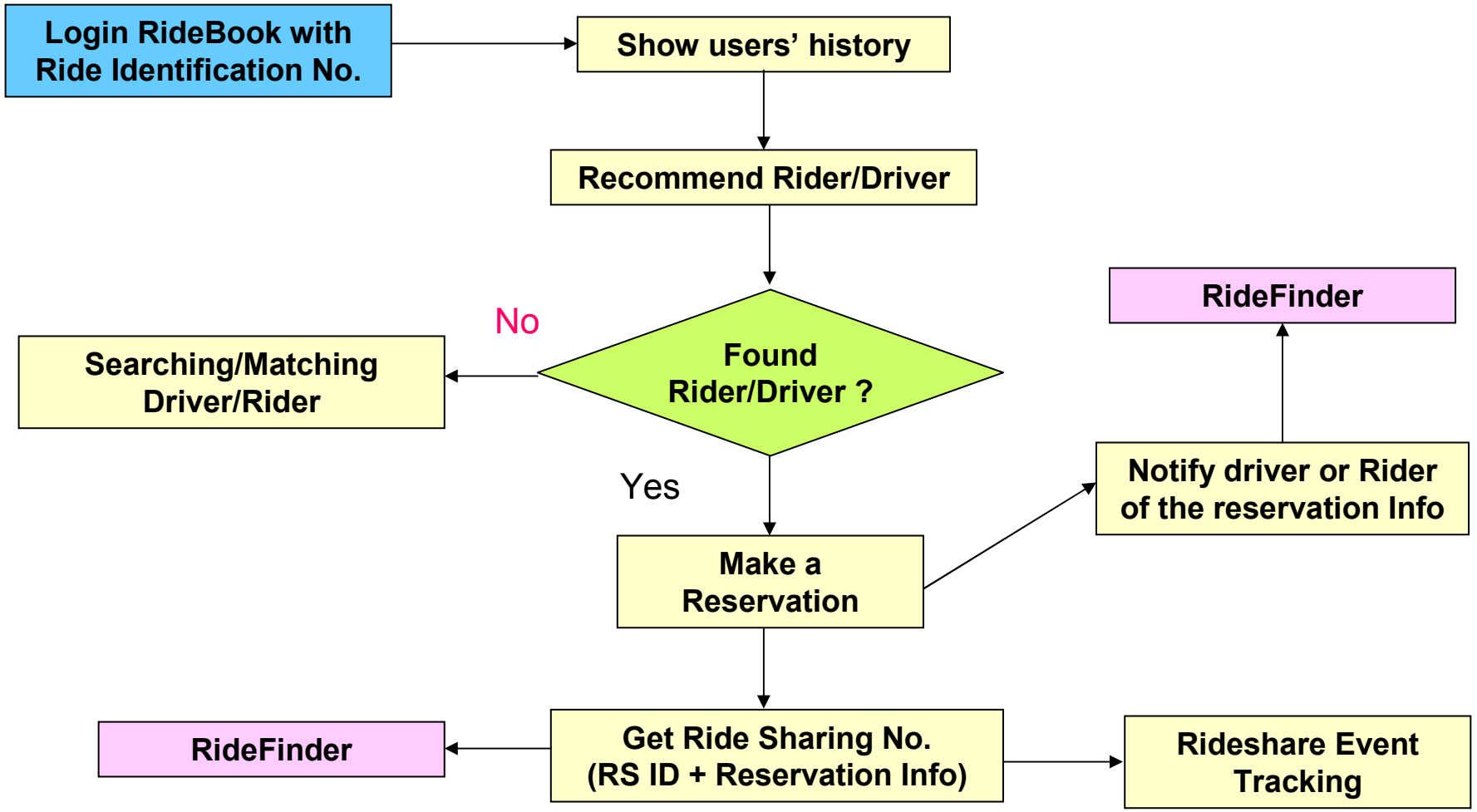
Driver receives confirmation

Sample Rate Table

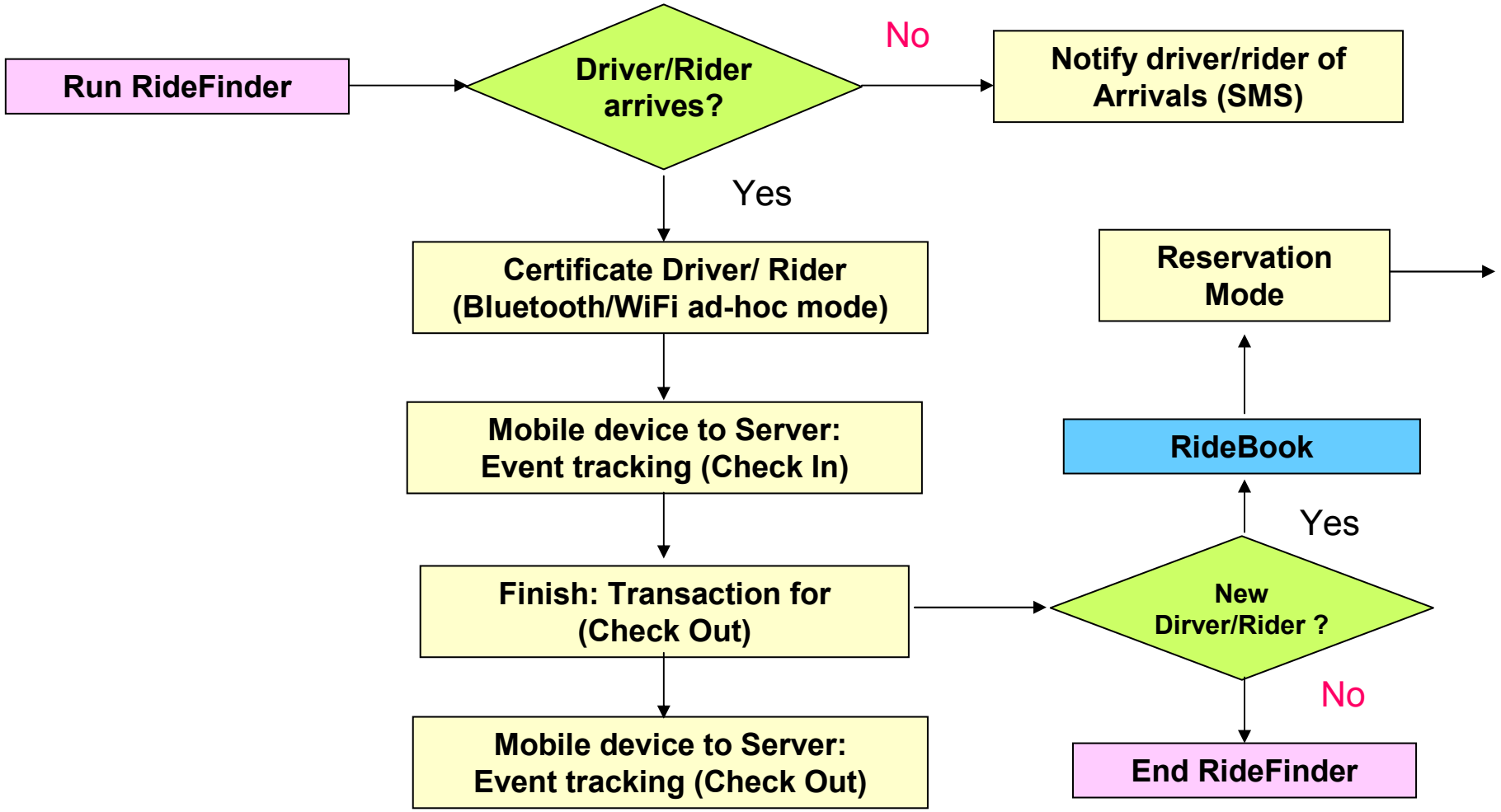
Assuming the cost of driving is 50 CRC per KM:

# of Riders	Driver credited (per KM)	Rider pays (per KM)	TCCR gets (per KM)
1	20	40	20
2	30	30	30
3	40	25	35

Flow Charts - RideBook



Flow Charts-RideFinder (Reservation Mode)



Flow Charts-RideFinder (Ad-hoc mode)