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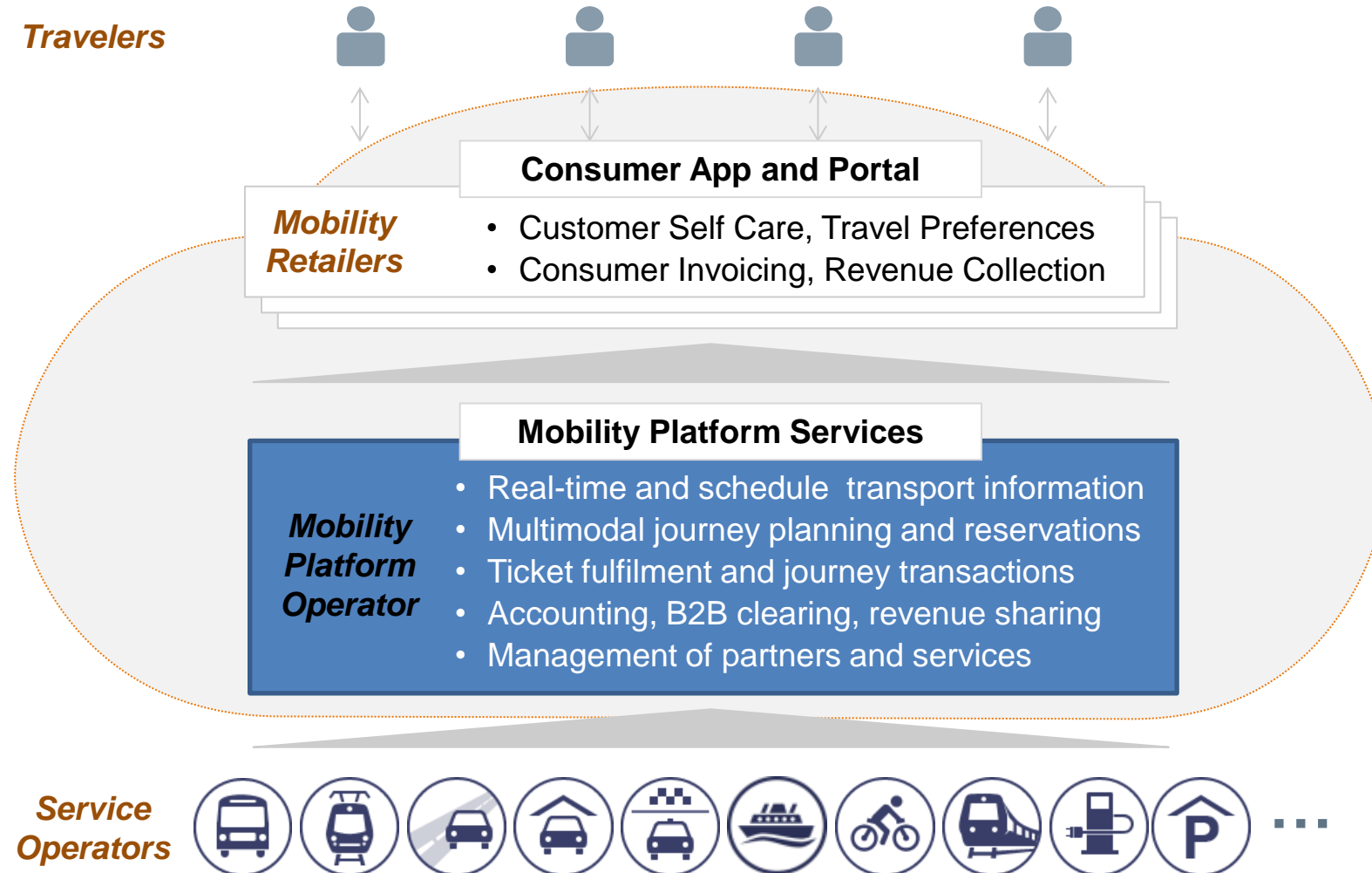
4th Florence Intermodal Forum

Florence, February 29, 2016.
Steffen Schaefer. Senior Principal Mobility IT Solutions, Siemens Mobility Division.

SiMobility Connect provides essential services to a mobility ecosystem for enabling multimodal travel.

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Travelers

Consumer App and Portal
- Customer Self Care, Travel Preferences
- Consumer Invoicing, Revenue Collection

Mobility Retailers

Mobility Platform Services

Mobility Platform Operator
- Real-time and schedule transport information
- Multimodal journey planning and reservations
- Ticket fulfilment and journey transactions
- Accounting, B2B clearing, revenue sharing
- Management of partners and services

Service Operators

Objectives:

Travelers can plan, book and, pay through one app or website

Transport Operators can bundle services and easily share revenue

Cities can deploy their transport strategies, simplify modal shift

What is the potential of new Business Models in transport?

How will they affect intermodal competition?

Steffen Schaefer, Siemens Mobility Division

Mobility as a Service (MaaS) bundles mobility services from various providers and thus makes them more easily accessible for travelers.
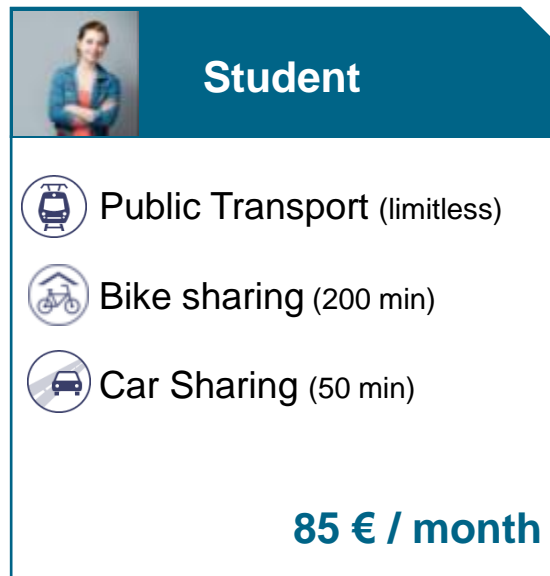
- Travelers have one trusted provider, offering packages:

Business Professional

- 🚕 Chauffeur Service (100 min)
- 🅿 Premium parking (5000 min)
- 🚊 Public Transport (limitless)
- 🚗 Car Sharing (200 min)

500 € / month

Student

- 🚊 Public Transport (limitless)
- 🚲 Bike sharing (200 min)
- 🚗 Car Sharing (50 min)

85 € / month

- Cooperation of public and private stakeholders.
- All payments are made electronically, either immediately or at the end of the month – using a 'best price' model.

MaaS Operators enable travelers to ...

- find relevant mobility services (PT, taxis, cars, ...)
- obtain information about transportation schedules
- obtain information about real time transport situation
- plan end-to-end intermodal routes

- buy Public Transport tickets
- call taxis
- book car sharing vehicles
- book bikes
- book EV charging posts
- open car sharing vehicle
- unlock bikes
- enter and leave parking garages

- pay for everything through one invoice

... across multiple providers and regions!

As part of the Open Mobility in Berlin-Brandenburg Siemens has created a mobility platform that integrates some 15 different service providers.

Legend
- Bike Station
- Car Sharing Station
- Floating Car Sharing
- EV Charging
- Parking
- Train
- Bus/Tram
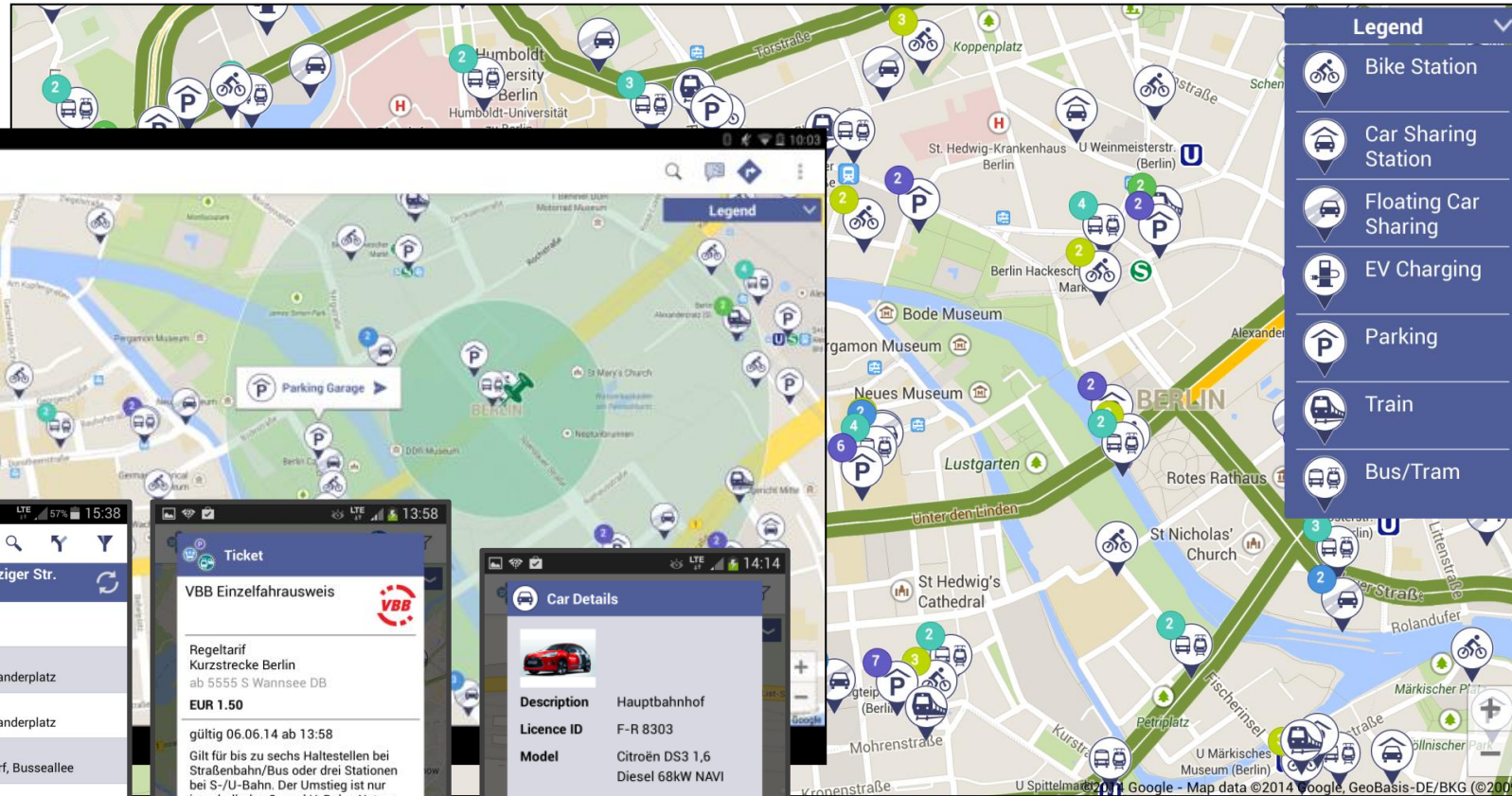
Features
- Mobility services
- Traffic information
- Intermodal routing
- PT Ticketing

137 metro 11,907 bus/tram	7,158 parking spaces	11,162 parking spaces	1,200 cars
110 cars	350 cars	800 cars	7,600 cabs
350 cars	100 charge points	1,200 bikes	300 bikes

Powered by…
SIEMENS vmz HanseCom

Demo-App to demonstrate functionality – Siemens focus is B2B platform

U Stadtmitte/Leipziger Str. (Berlin)

Time	Towards
16:08	Bus M48 S+U Alexanderplatz
15:47	Bus M48 S+U Alexanderplatz
15:44	Bus M48 Zehlendorf, Busseallee
15:52	Bus M48 S+U Alexanderplatz
15:57	Bus M48 Zehlendorf, Busseallee
16:08	Bus M48 S+U Alexanderplatz
16:35	Bus M48 Zehlendorf, Busseallee
16:16	Bus M48 S+U Alexanderplatz

Ticket

VBB Einzelfahrausweis

Regeltarif
Kurzstrecke Berlin
ab 5555 S Wannsee DB

EUR 1.50

gültig 06.06.14 ab 13:58

Gilt für bis zu sechs Haltestellen bei Straßenbahn/Bus oder drei Stationen bei S-/U-Bahn. Der Umstieg ist nur innerhalb des S- und U-Bahn-Netzes gestattet.

ERBK-06061358
137749862364
P**31231238v

Car Details

Description	Hauptbahnhof
Licence ID	F-R 8303
Model	Citroën DS3 1,6 Diesel 68kW NAVI
Seat Count	5
Door Count	3
Car Color	weiß
Fuel Type	DIESEL
Car Tariff	EUR 2,50 (1,00 Hour)
Car Properties	ABS, AllSeasonTires, AirConditioningSystem, Radio_CD, NavigationSystem, FineParticlesBadge_g

Book

The platform is now in productive use. VBB uses multimodal data from SiMobility Connect in their Live Map. KVB's app displays shared bikes.
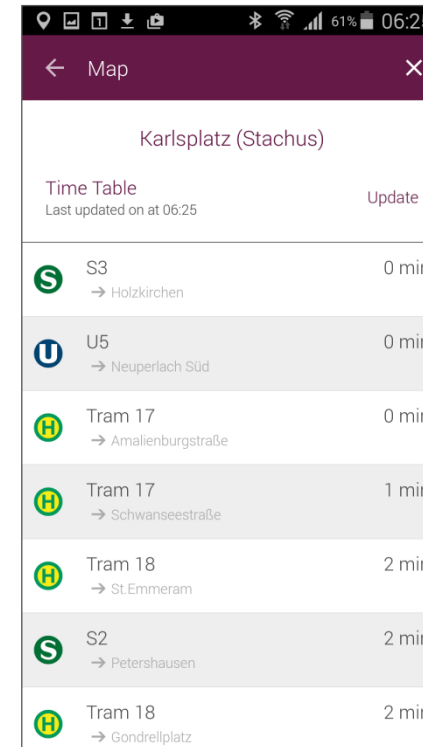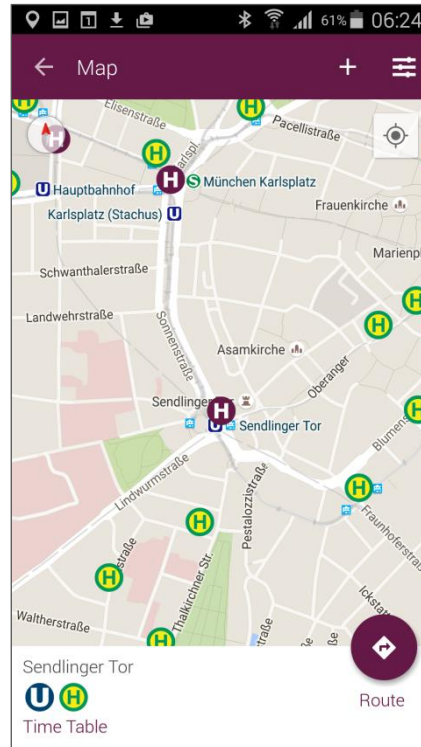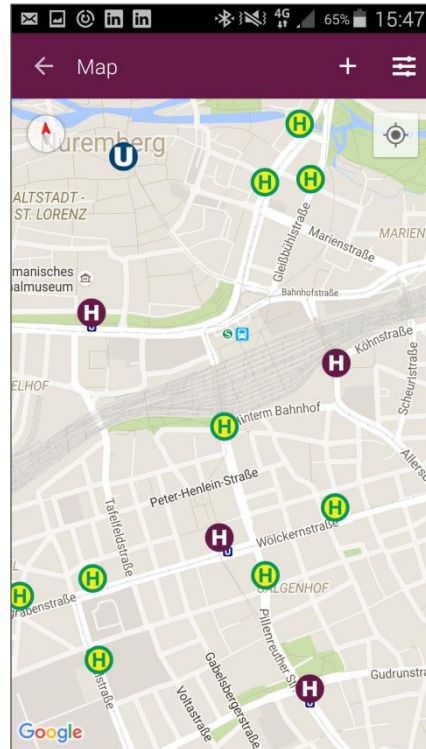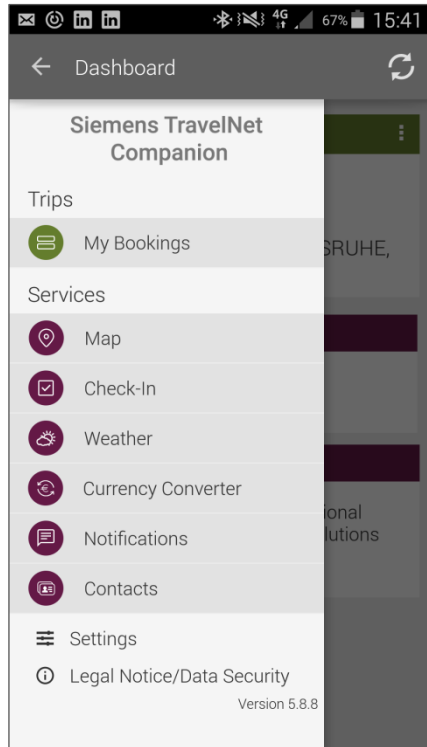
VBB Live Map
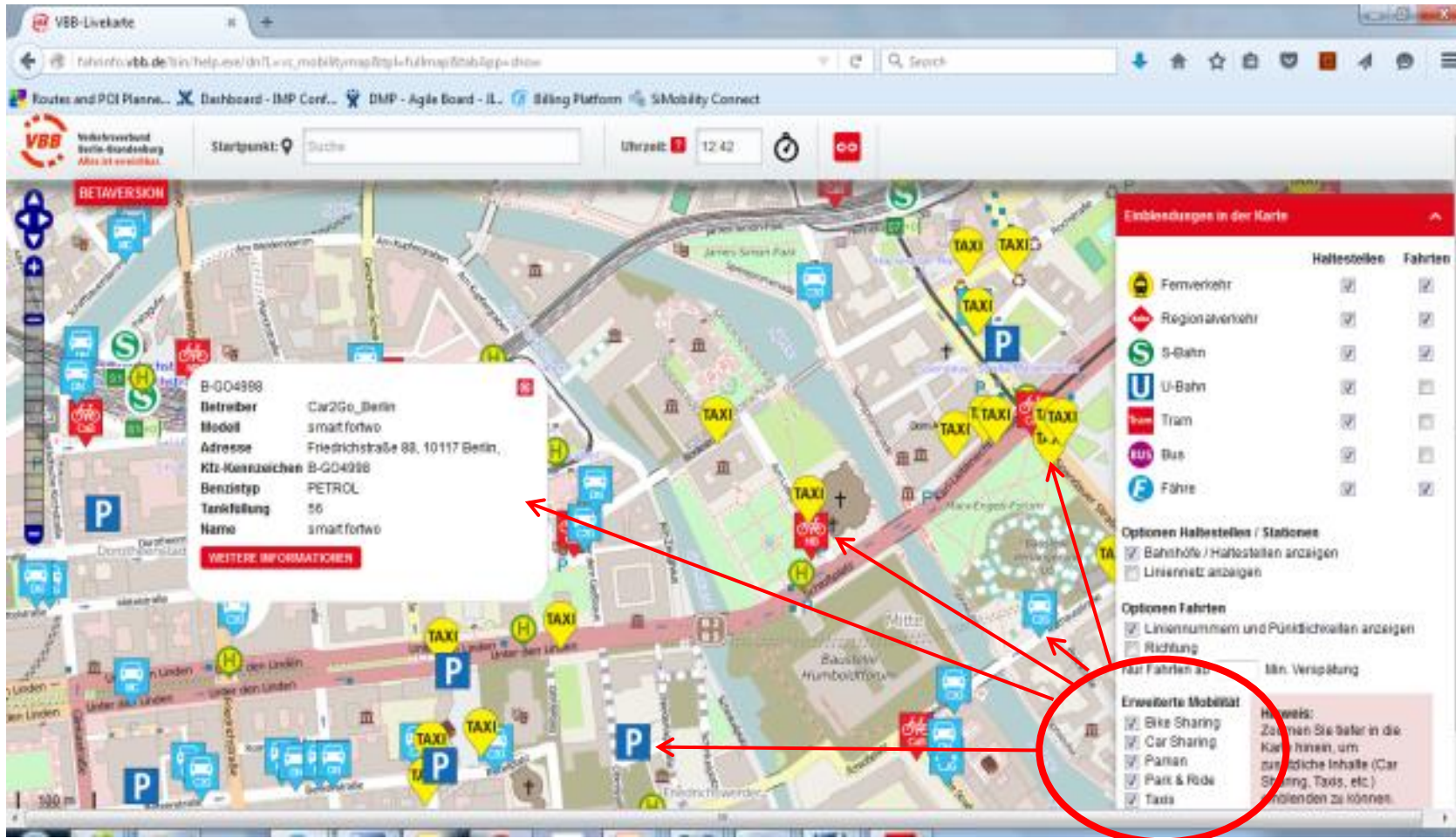
KVB App
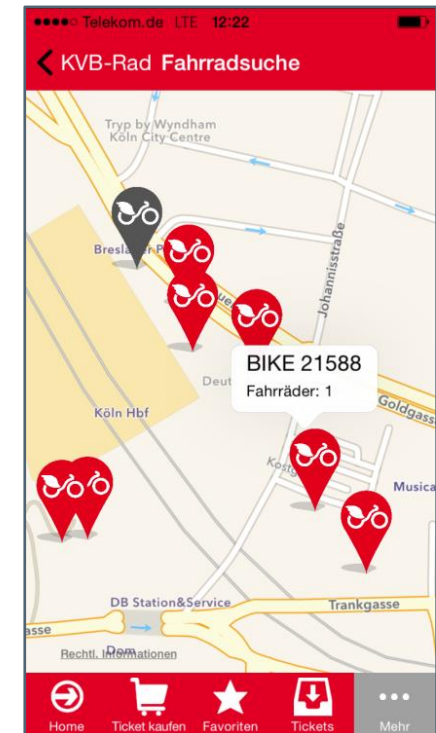
multimodal transport information provided through SiMobility Connect

Siemens Corporate Travel provides multimodal data for urban transport to Siemens employees, using SiMobility Connect.

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Travel Net Companion provides:

- hotel bookings,
- flight reservations,
- rental car bookings,
- urban mobility options
  - Munich
  - Berlin
  - Nuremberg
  - more to come...

to Siemens employees

Demand Responsive Transport (DRT) provides a public transport service for scarcely populated areas and times of low passenger demand.

Demand Responsive Transport (DRT) enhances Public Transport:

- flexible routing and ad hoc scheduling

- medium sized vehicles, small number of travelers

- user experience and price between taxi and fixed PT

- makes PT economically viable in scarcely populated areas and at times of low passenger demand

- eliminates need for walking, cycling, driving (and parking) to bus stops and train stations
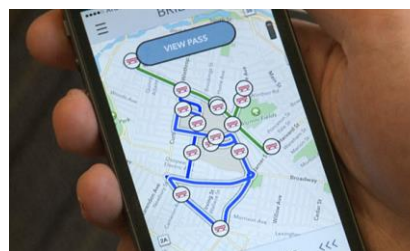
image: Bridj
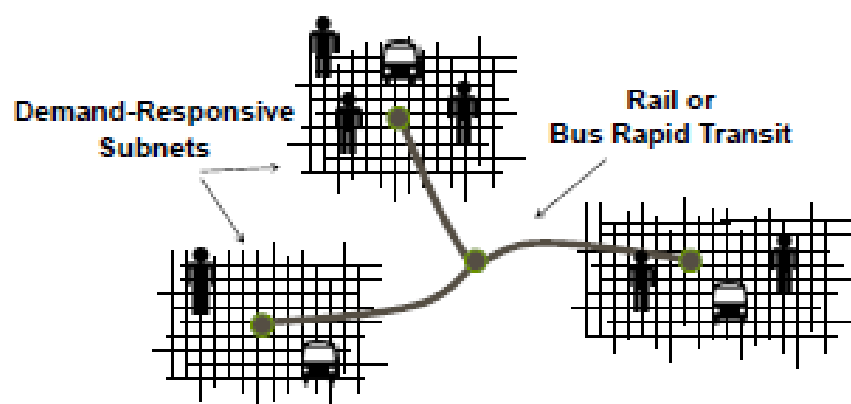
image: Ridecell

DRT differs from traditional 'transport on demand':

- **travelers** use **Smartphones** to plan journeys, book, and locate meeting points or vehicles

- **fully automated** dispatching, based on real-time data in the **Cloud**

- **integration** with fixed PT (schedules, fares, ticketing, payments)

- **drivers** get route dispatch information on **Smartphones** or Tablets

→ **use of state-of-the-art technologies makes all the difference**

What is the potential of new Business Models in transport? How will they affect intermodal competition?

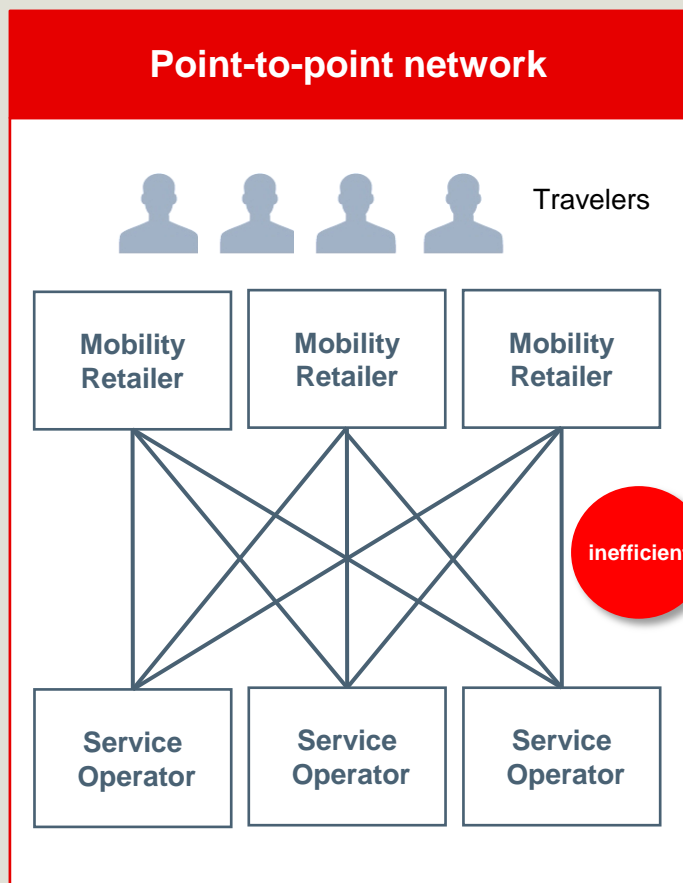To increase their revenue, transport operators, can:
- participate in bundling initiatives so that Mobility as a Service will become mainstream
    - freely provide schedule and real-time information
    - allow sell-through of their respective transport products
    - obtain their fair revenue share from resellers
- provide higher value, higher margin (non-subsidized) services, in example:
    - provide DRT as feeder service to 'regular' (fixed-line, fixed-schedule) public transport
    - provide DRT as a shared-use, but high value transport service
- improve passenger experience
    - offer Broadband internet and relevant content in vehicles and stations as freemium product
    - use automatic ticketing incl. determining best tariff and electronic payment to simplify usage

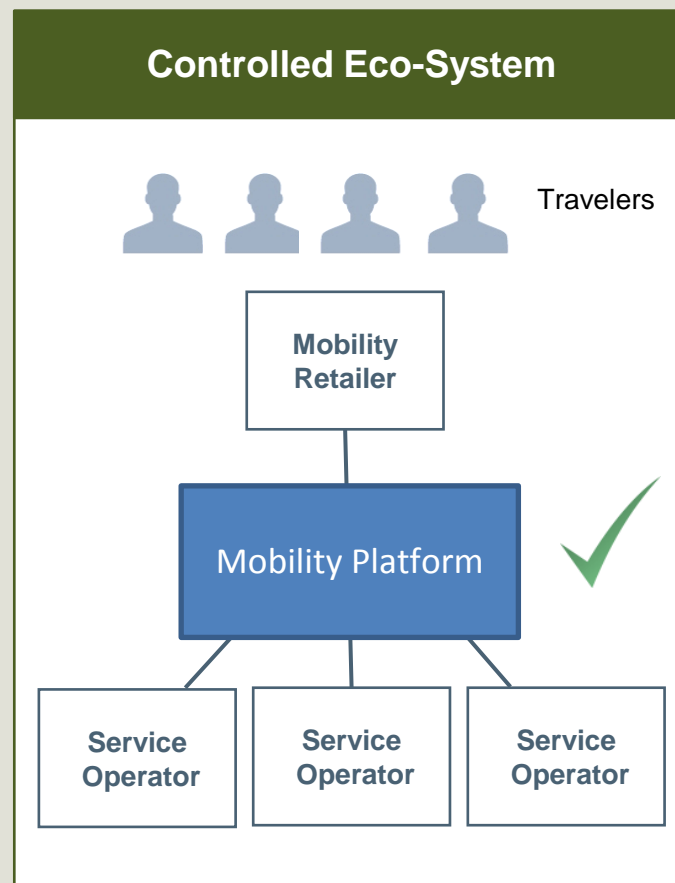These activities would affect intermodal competition in various ways
- enable competition and in fact, new markets (for MaaS operators)
- create higher margin services (displacing private car ownership, car rental, and limo service/taxis)
- drive sustainability and modal shift
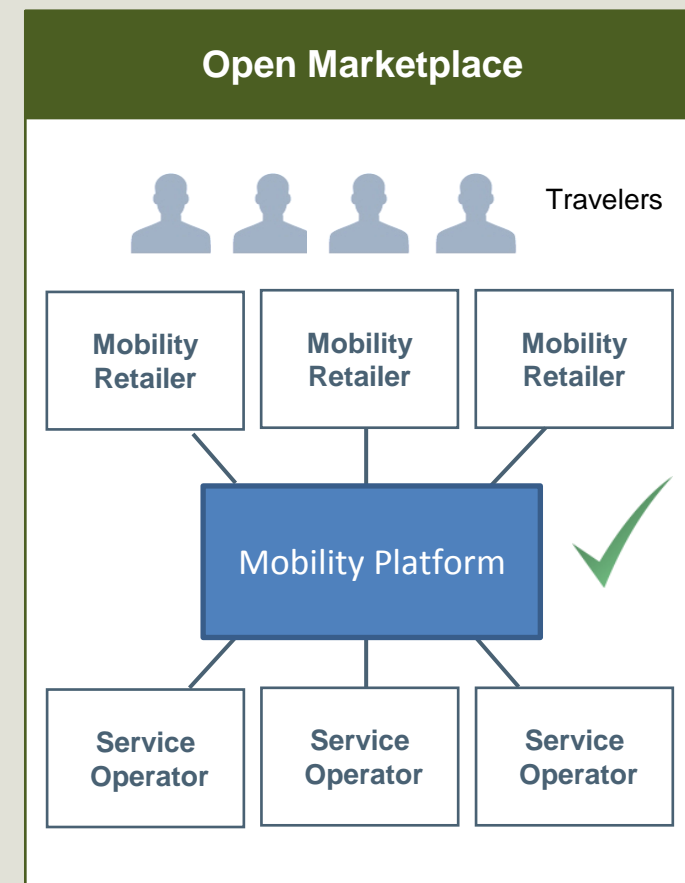
DRT: Demand Responsive Transport

A Business-To-Business (B2B) Integration Platform allows for efficient integration of mobility services while reducing cost for all participants.

Point-to-point network

Travelers

Mobility Retailer | Mobility Retailer | Mobility Retailer

Service Operator | Service Operator | Service Operator

inefficient

- high integration cost, not scalable
- each retailer pays complete cost

Controlled Eco-System

Travelers

Mobility Retailer

Mobility Platform ✓

Service Operator | Service Operator | Service Operator

- lower integration cost, scalable
- one retailer pays and controls

Open Marketplace

Travelers

Mobility Retailer | Mobility Retailer | Mobility Retailer

Mobility Platform ✓

Service Operator | Service Operator | Service Operator

- lowest integration cost, scalable
- retailers share cost of platform

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Integration of Demand Responsive Transport in the existing transport system eliminates the need of cycling or driving to a bus or train station.

Travelers want effortless travel:

- quick, convenient transport, at reasonable price

- often, this means a combination of transport modes, incl. bus or train

- find all transport options through one app or web site

- no additional registration with yet another provider

- book and pay electronically

- have required tickets transmitted and stored in the app

→ **integrated travel experience**

Step 1: Traveler makes a request for a journey.

Step 2: Backend finds optimal route, incl. DRT segment.
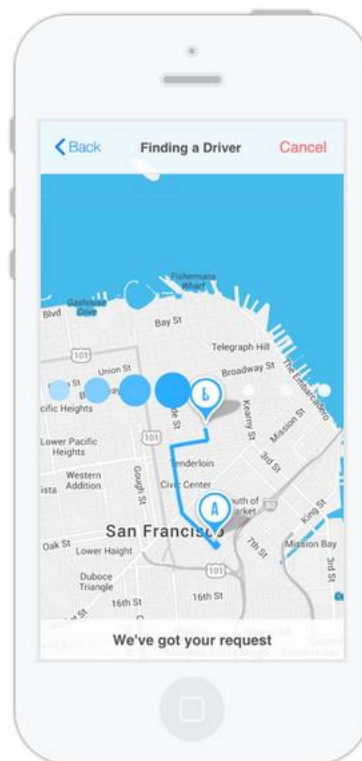
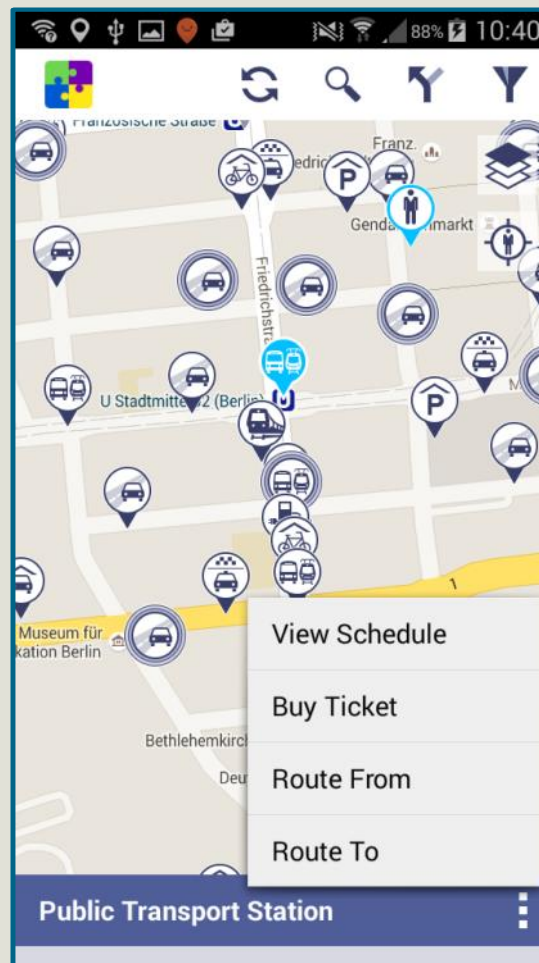Step 3: For DRT, backend finds most suitable driver and routes her to traveler.

Step 4: Backend issues and transmits ticket(s), collects payments.

images: Ridecell, Siemens

A map shows transport services nearby together will live information

Intermodal trips can be optimized for travel time, cost, distance and CO2 emissions

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