



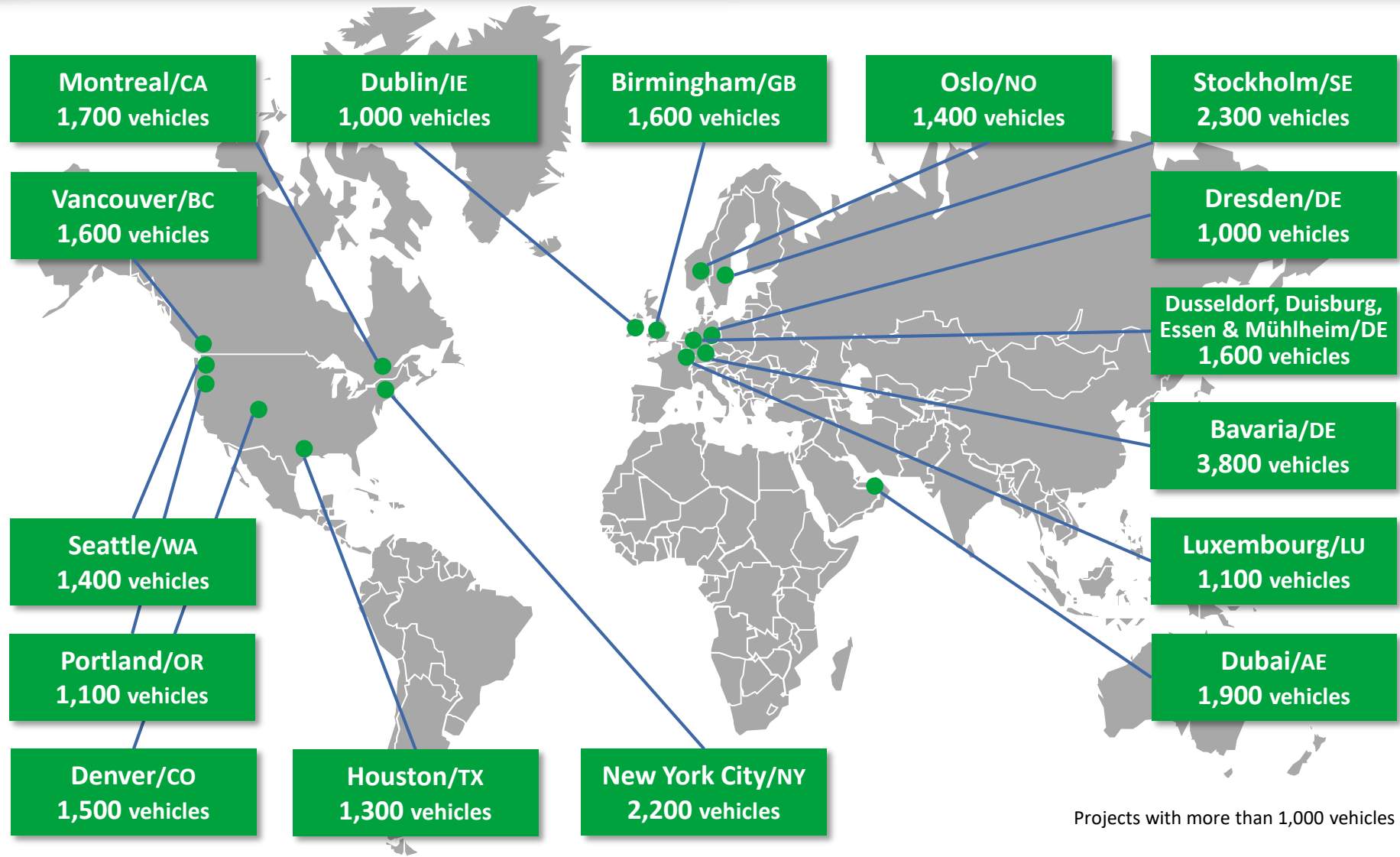
# MaaS through Account-Based Ticketing

Ann Derby, CTSM

INIT Innovations in Transportation, Inc.



# Global References



## Integrated ITS Solutions

- ▮ Planning & Dispatching
- ▮ Ticketing & Fare Management
- ▮ Operations Control & Real-Time Passenger Information
- ▮ Analyzing & Optimizing
- ▮ Service & Maintenance



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# MaaS in Turku, Finland

- **6** municipalities
- **285,000** inhabitants
- **24.4 mil.** trips annually
- **260** buses
- **300,000** cards



# Turku Project at a Glance

## Components

CAD/AVL  
Traffic Signal Priority  
System  
Account-based  
ticketing system

## Goals

Easy traveling for  
the passengers  
Comfortable  
handling for the  
operator

## Timeframe

Project start in 2014  
Implementation  
completed in 2016  
MaaS in 2018

## Requirements

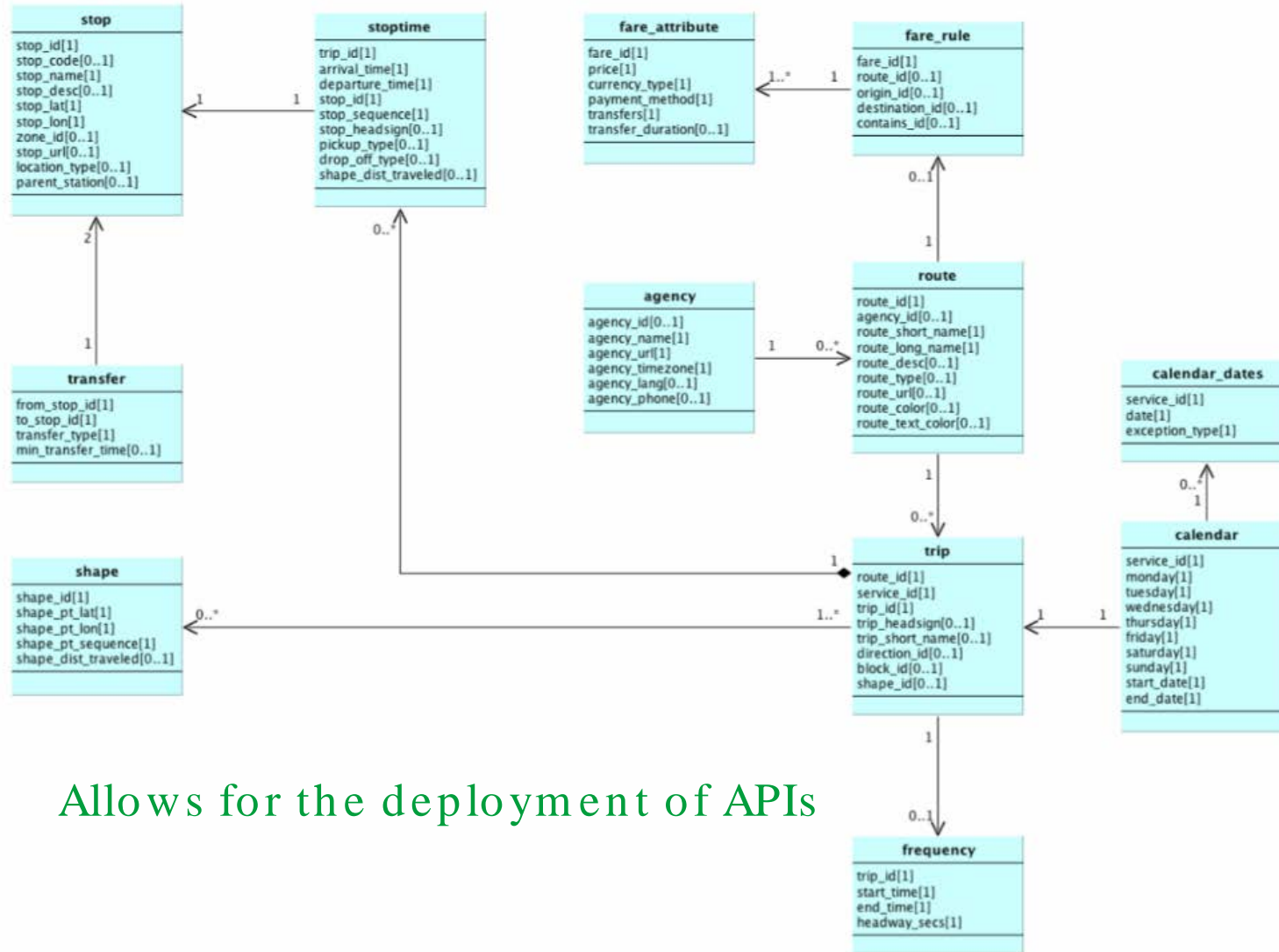
Flexible  
Open  
Expandable

# MaaS Design Considerations

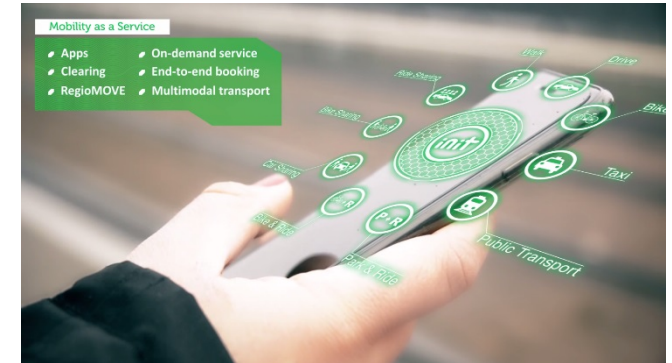


- **Data Concept** – planning, theoretically, its only a plan. Is it accurate, complete & realistic?
- **Operational Dispatching** – the daily reality: disruptions, multiple operators & modes, OCC's actions
- **Ticketing & Travel Planning** – best price, fare capping, fastest, greenest or driest journey
- **Passenger Interfaces** - Open, reliable, flexible, customizable & individualized

# MaaS New Data Concepts – GTFS Flex



Allows for the deployment of APIs



# Migrating Turku's Ticketing System

## Requirements

- Full migration from card-based to account-based solution
- Card or other media only used as identifier
- Mobile ticketing & top-up
- Transactions in real-time
- Offline authentication possible
  - White lists





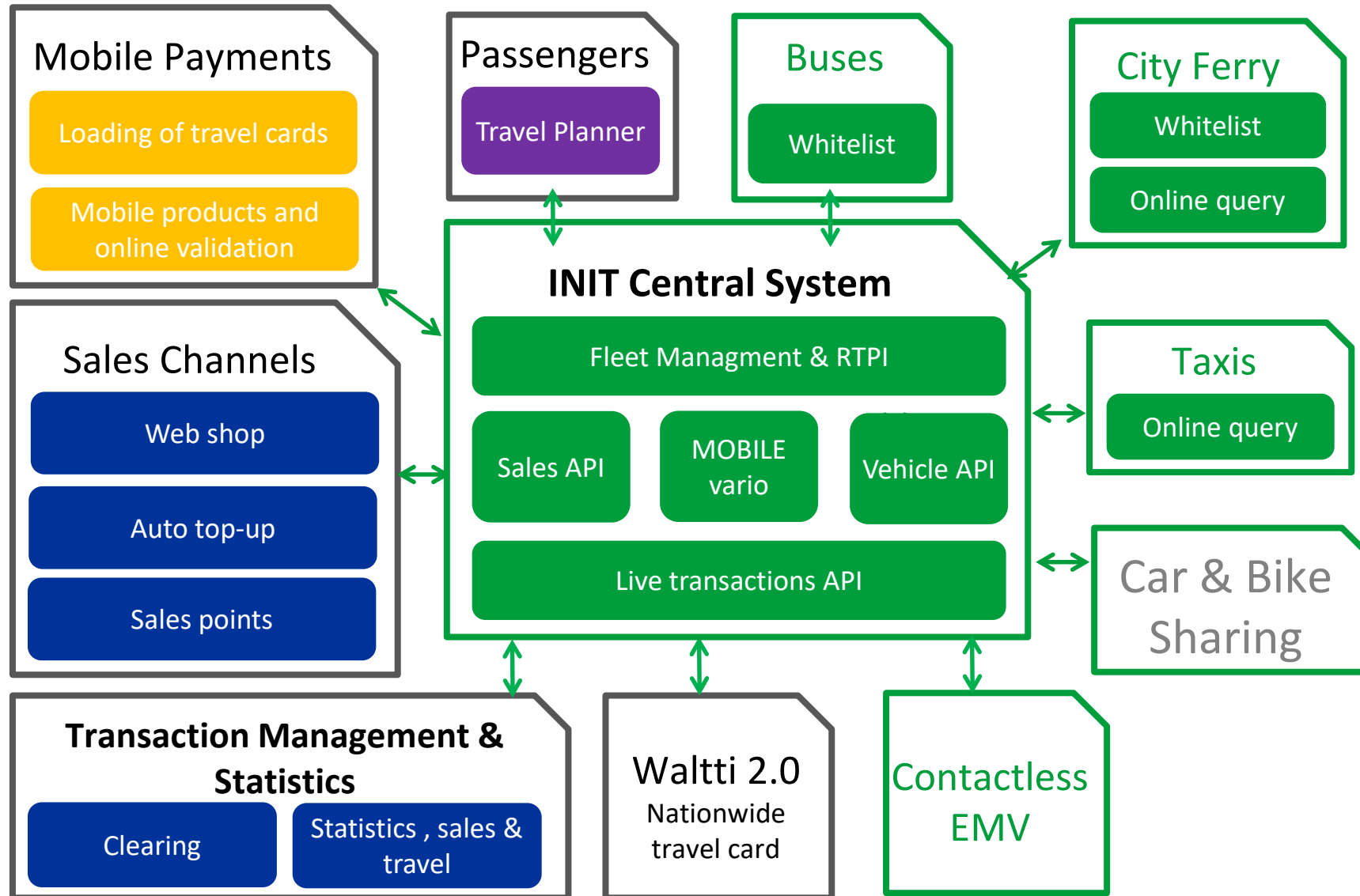
# Open Architecture Design

## API's

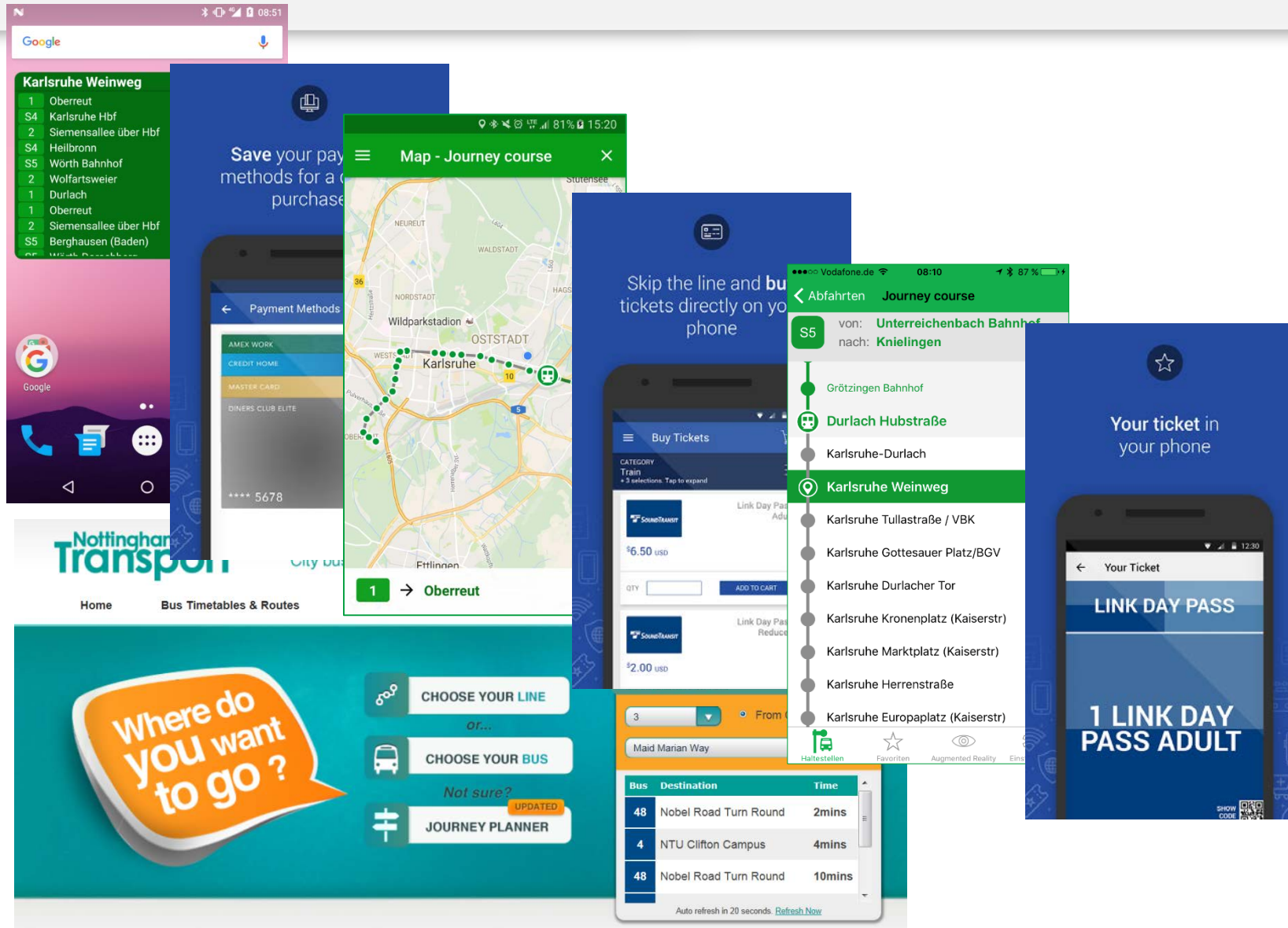
- Ticket solution with an API for third parties
- Fleet Management and Real Time Passenger Information
- Add on services and benefits
- Enables Mobility as a Service (MaaS)
  - Users are able to easily combine and pay for different mobility services
  - Users receive live data on service deviations



# Open Architecture Design



# Personalized Customer Interfaces



# Future Plans



- **Autumn 2018**
- Lippupiste event ticket integration
- Self-service vending machine
- EMV contactless cards
- Mobile tickets with NFC



# Customer Satisfaction



- Customer satisfaction **4.3** on a scale from 1 - 5



- Ridership increase of 5% in 2017

Thank you.



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