



the mind of movement

**Breakout session II: Taxis in the future mobility chain**

# **The MaaS Ecosystem**

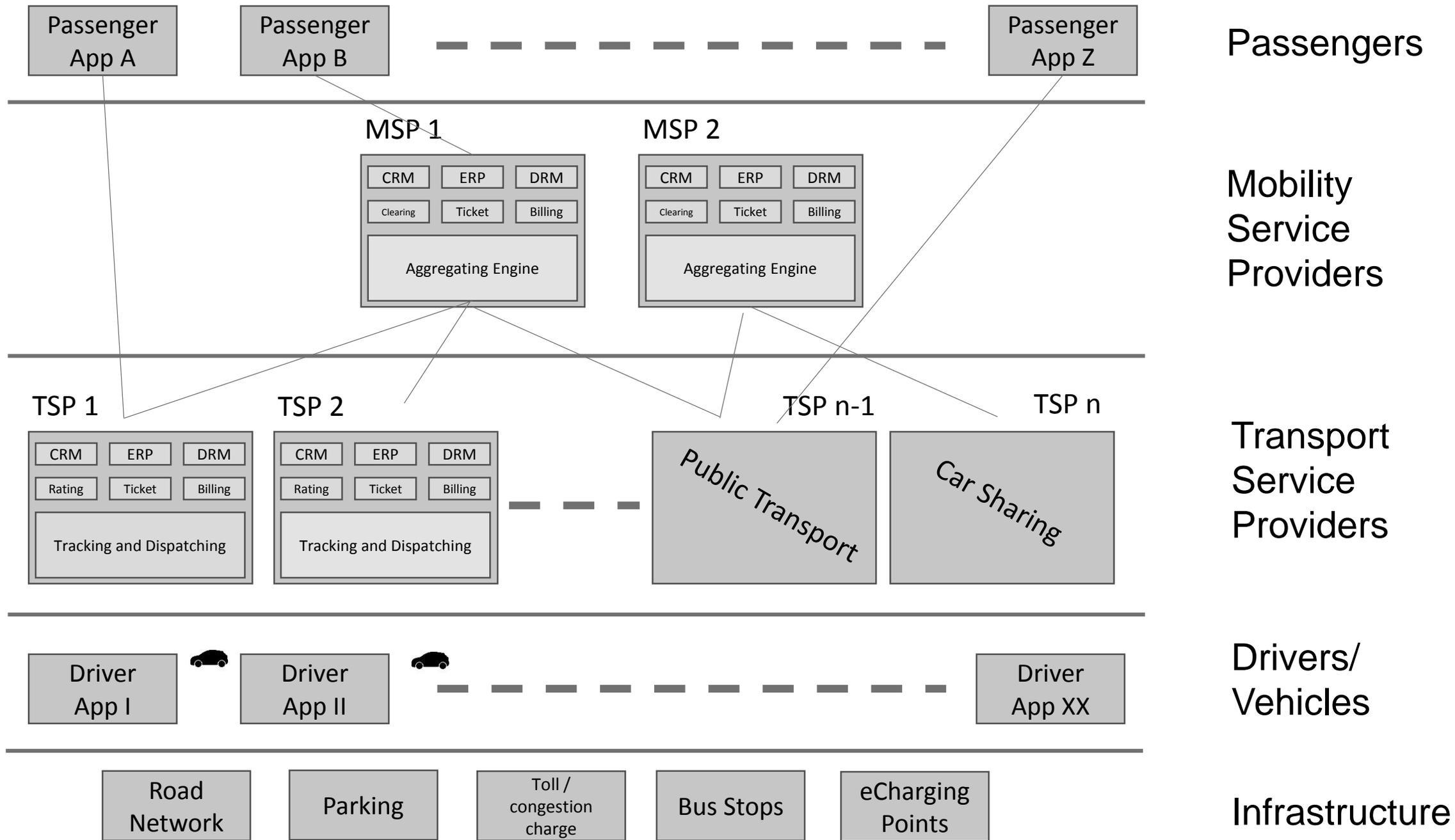
**Ralf Frisch, Solution Director MaaS, PTVGROUP**



# MaaS

Mobility-as-a-Service

ECOSYSTEM



Ride Sharing

Passenger App A

Passenger App B



Passenger App Z

Passengers



MSP 1

MSP 2

CRM	ERP	DRM
Rating	Ticket	Billing
Aggregating Engine		

CRM	ERP	DRM
Rating	Ticket	Billing
Aggregating Engine		

Mobility Service Providers

TSP 1

TSP 2

TSP n-1

TSP n

CRM	ERP	DRM
Rating	Ticket	Billing
Tracking and Dispatching		

CRM	ERP	DRM
Rating	Ticket	Billing
Tracking and Dispatching		



Public Transport

Car Sharing

Transport Service Providers

Driver App I



Driver App II



Driver App XX

Drivers/Vehicles

Road Network

Parking

Toll / congestion charge

Bus Stops

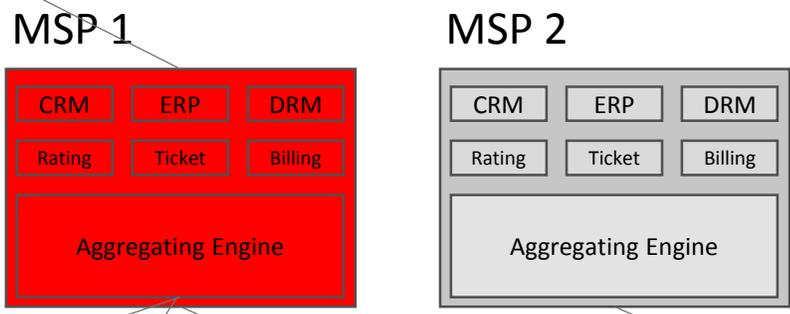
eCharging Points

Infrastructure

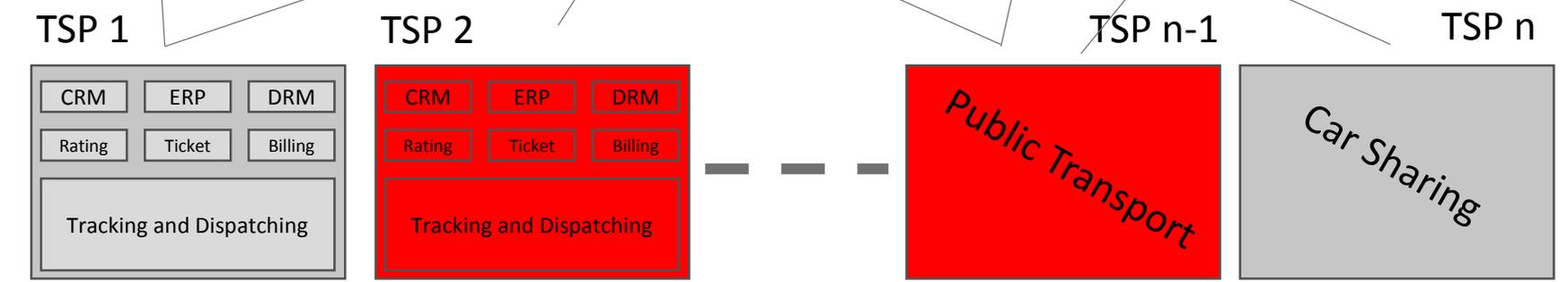
Integrators/  
Builders:



Passengers



Mobility  
Service  
Providers

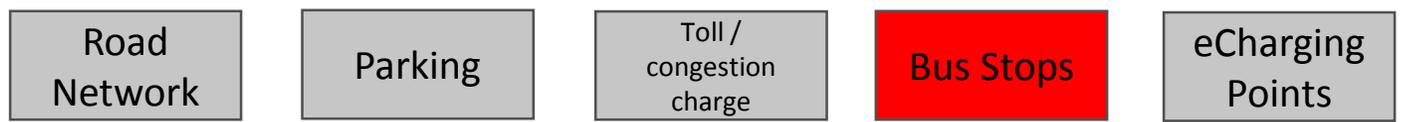


Transport  
Service  
Providers

Owners:  
Public  
Transport  
Providers



Drivers/  
Vehicles



Infrastructure



Passenger App A

Passenger App B

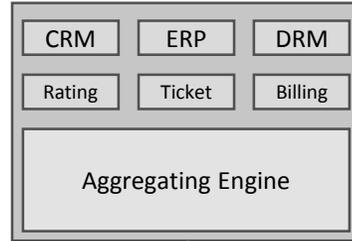
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Passengers

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MSP 2

Mobility Service Providers



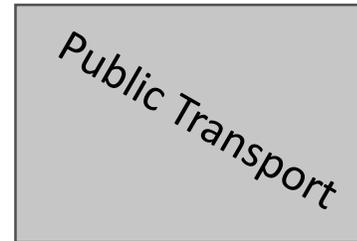
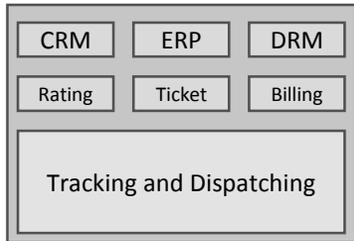
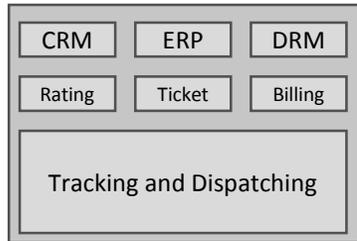
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Transport Service Providers



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DAIMLER



Volkswagen



PEUGEOT



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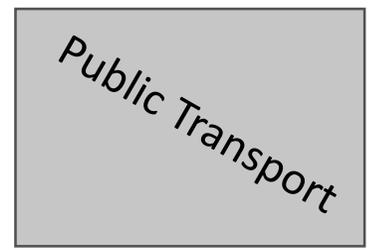
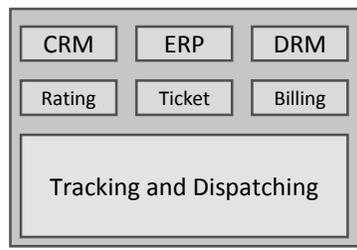
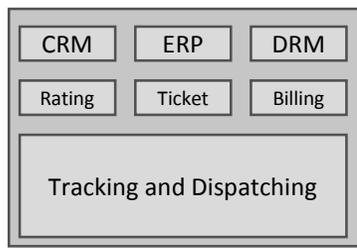
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Transport Service Providers

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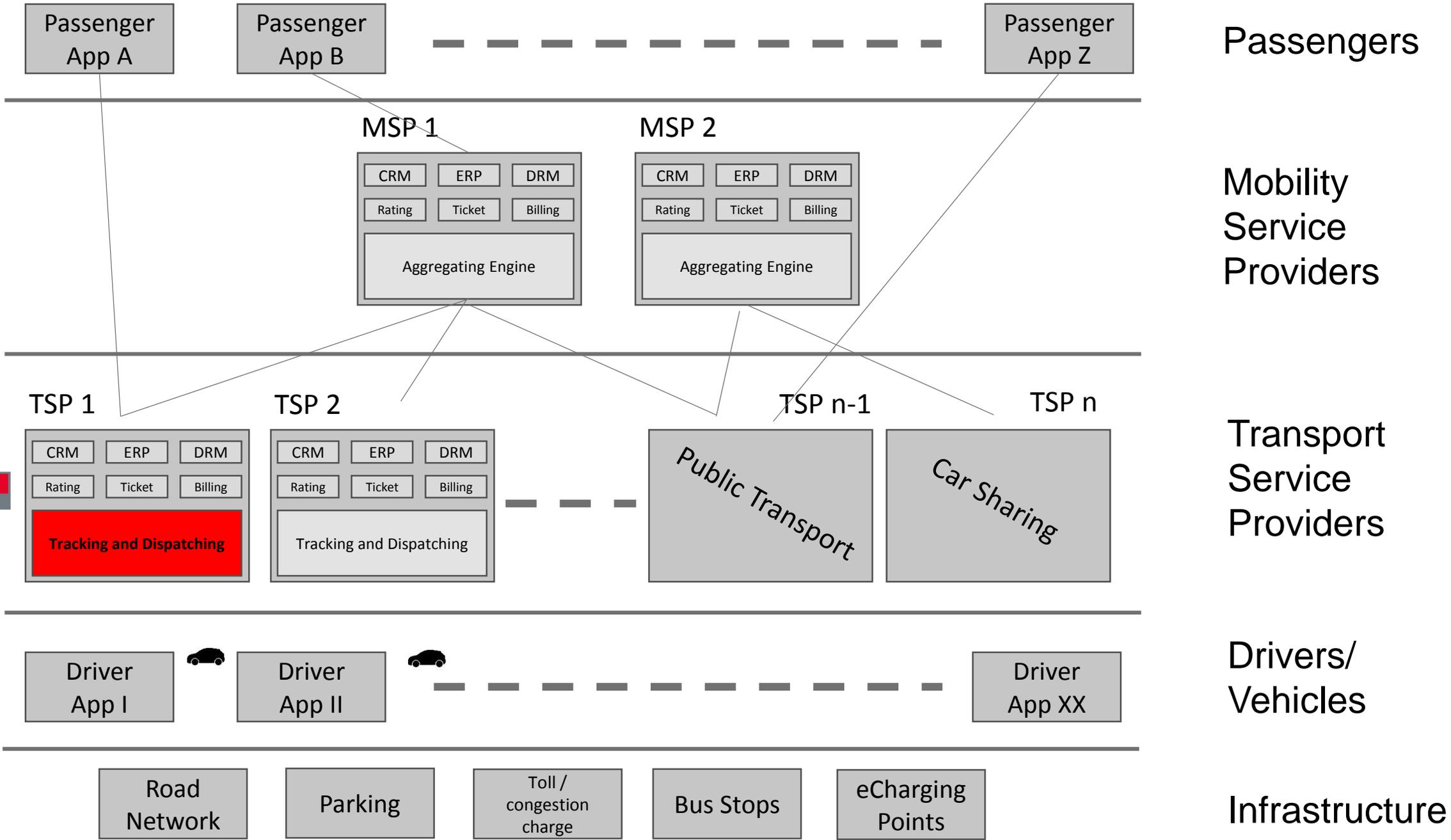
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# PTV MaaS Accelerator Program

PTV MaaS Operator

An aerial, high-angle photograph of a dense urban landscape, likely New York City. The image shows a vast expanse of skyscrapers and high-rise buildings, with a mix of architectural styles. A prominent building with a golden, conical roof is visible in the center. The streets are tightly packed, and the overall scene is a testament to high-density urban development.

The PTV MaaS Operator is a cloud-based service that enables you to build your own on-demand ride-pooling system.

# Use Cases

## OEM/car manufacturers

- Sell mobility instead of hardware (cars)
- Want to operate their own fleet

## Public Transport Providers (PT)

- Improve utilization of dedicated lines
- Enhance own mobility market offering

## Platform providers / Taxi providers

- Need components to cope with real-time dispatching and traffic information



# Technical **Aspects**

Real-Time

Tracking and ETA

Dispatching Algorithm (uni-modal, not inter-modal).

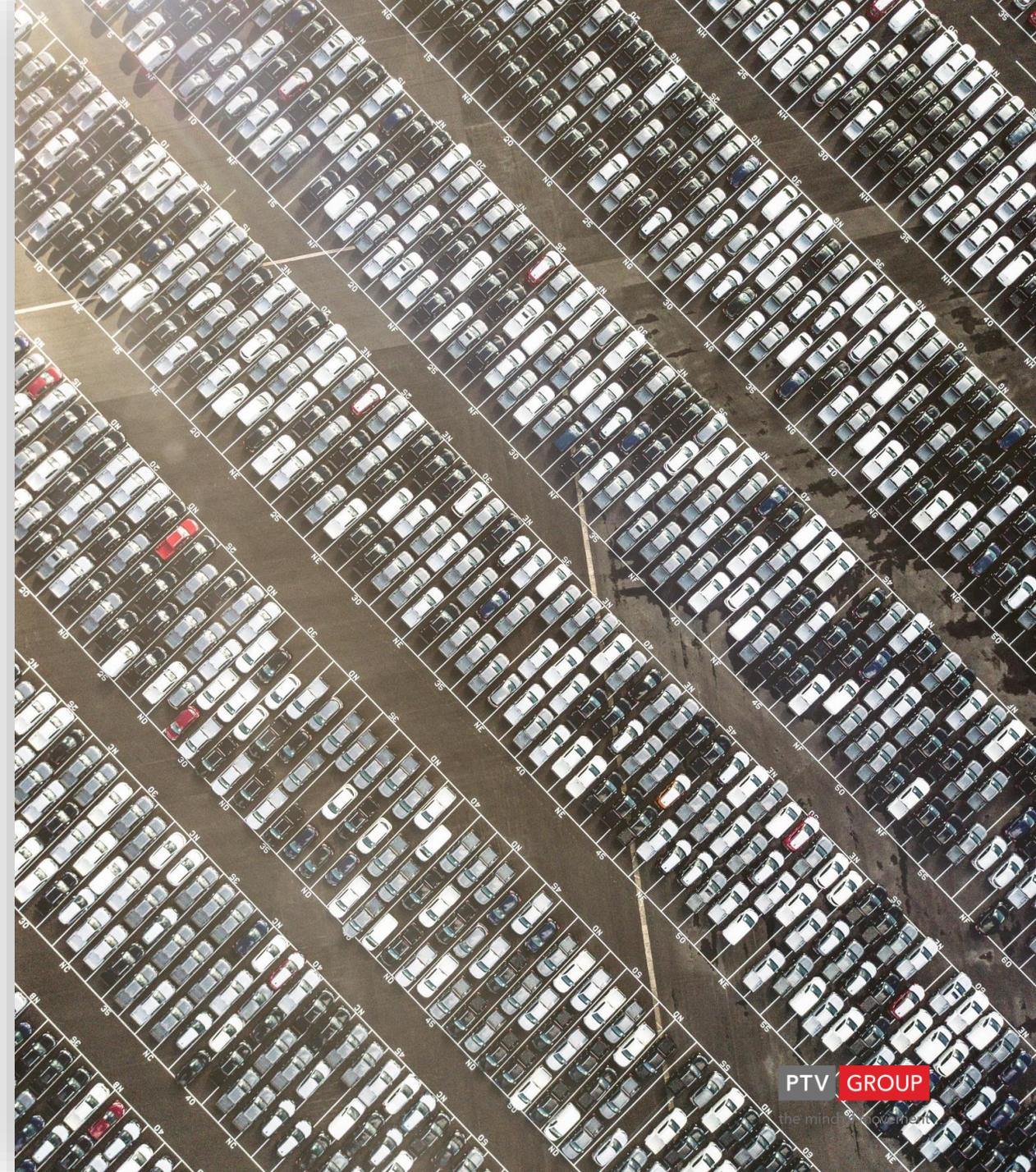
Dashboard/Admin UI (for visualizing only)

24/7 operations, worldwide

Product-first → no customer-specific projects

API-first → we sell an API, not a ready-to-use UI like PTV MaaS Modeller

Cloud-only → operated in the cloud by PTV; no installation on customer side possible!





## PTV has a lot of **experience**

- We are experienced in building world-leading algorithms (also in Logistics)
- We are experienced in building and operating web services
- We are the only company on the planet to combine such comprehensive knowledge in both Logistics and Traffic, ranging from strategic to real-time planning
- We build upon decades of market experience and domain knowledge

# PTV has a lot of **experience**

New forms of mobility are conquering our cities, substantially changing the way we move, live and work.

With our worldwide network comprising over 3,000 cities, logistics, transportation and automotive companies, international organisation and research facilities, we are the key link bringing all involved actors together. For a change of mobility that benefits everyone.

## Our backbone

- ▶ Building APIs with e/xServer since >10 years
- ▶ Building real-time systems like PTV Drive&Arrive since 2013 years
- ▶ Cloud experience since 2010 (first product was PTV Map&Guide Internet)
- ▶ We have „lightning speed“ distance matrix calculation with high performance routing
- ▶ We know how to work with traffic information (s. logistics)



Transics  
a WABCO company

Transics provides seamless fleet management solutions combined with advanced telematics technology that help commercial vehicle fleet operators across Europe to manage their trucks, trailers, drivers and cargo. One of its customers is Verhoek Europe, an international transport company for carpet rolls that operates a fleet of 350 vehicles.



Hermes

Hermes Transport Logistics GmbH (HTL) wanted to reduce CO<sub>2</sub> emissions, calculate CO<sub>2</sub> emissions per originator and provide a cost-free CO<sub>2</sub> service for its customers. The company implements innovative tailored transport logistics solutions throughout Europe.

Using the PTV xServer, it became the first logistics company to provide its customers with cost-free monthly CO<sub>2</sub> accounts.



SCH  
schachermayer

One of Europe's most contemporary high-performance distribution centres houses 110,000 different high-quality items. For Schachermayer Großhandelsgesellschaft m. b. H., customer service is key: 97% of all catalogue items are held in stock and can be delivered within a maximum of 48 hours. Daily transportation of 180 tons of goods, both in Austria and abroad, are a challenge for their trip planning. It's a comfort to know that Schachermayer can rely on PTV Smartour.

PTV SMARTOUR  
the mind of movement



## Why PTV MaaS Operator?

- World is moving from car ownership to on-demand mobility
- Cities and fleet operators want to focus on core business and not re-inventing the wheel for core technology
- Next step after using PTV MaaS Modeller → simulate first then bring to an operational level
- Combine PTV Know-how in traffic and optimisation

