

Fleet Management Towards Automated Vehicles

A Snapshot

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Agenda

- Legacy fleet management – a reminder
- Automated driving trends
- Fleet oriented automated driving types
- Robotaxis and CAAS
- CAAS FMS – A different type of fleet management
- CAAS fleet management – functional review



About Spotam



Auto-Tech



Legacy
Telematics



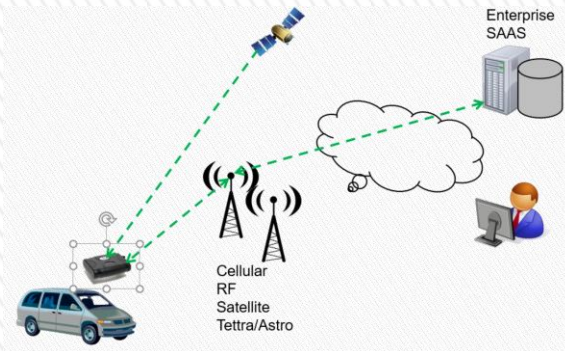
Mobility & ITS



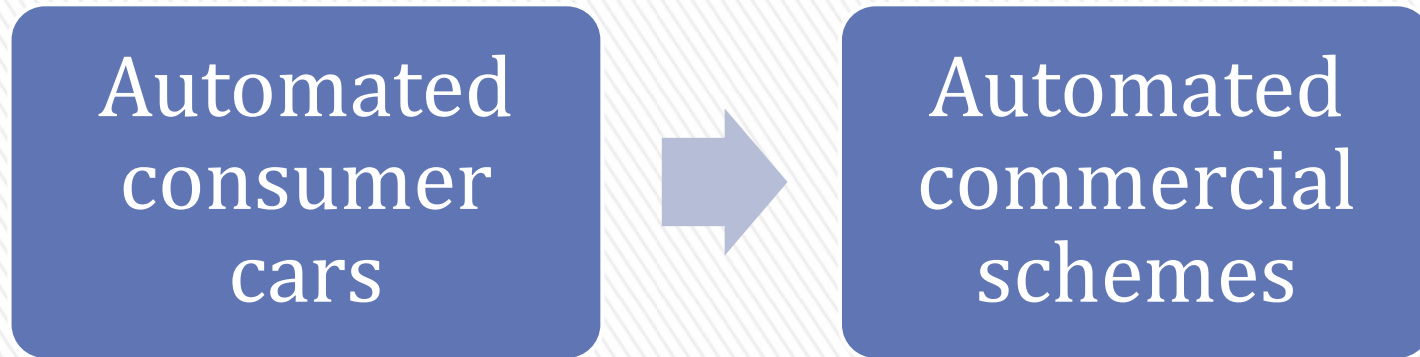
Automated
Driving

Legacy FM Systems

- Tracking
- Dispatch
- Fuel management
- Driver management
- Vehicle management
- Reports
- Alerts
- Mobile application
- Eco/safe driving
- Rout management
- Vehicle diagnostics
- Back office integration



Major Trial Trend



Fleet management becomes a key success factor

It is a different fleet management

Moving from supervision to action

Fleet Oriented Automated Driving



Robotaxis (CAAS)



Delivery vehicles



Platooning



Automated trucks



Shuttle bus

Robotaxi Trials



Daimler & Bosch



Nutonomy



Waymo One



GM Cruise



Dena & Nissan



Yandex

Robotaxis (CAAS)

- Unification of all forms of personal service transportation
- Ride share or exclusive ride
- Private section
- Business model: distance, mileage, sharing
- Lower cost – no driver expenses
- Simpler control (A to A, A to B)
- Better city and society:
 - Safer
 - Traffic efficiency (congestion, parking)
 - Less pollution
 - Economical savings (Personal efficiency)



CAAS Fleet Management

A Different Type Of Fleet Management

- Main differentiating factors:
 - No human presence in work flow
 - Mass quantities of vehicles & service providers
 - Special automated vehicle needs
- As a result:
 - Action mode vs. supervision mode (automated decisions & activations)
 - No compromise on CAAS features
 - Intensive optimizations on all fronts (all kinds of work flows in mass)
 - Remote maintenance & diagnostic services
 - Effective emergency services
 - Roaming and partnerships on the automation level
 - Expanded variety of in-vehicle sensors
 - Automated driving regulation compliance



AV-CAAS Fleet Management



Fleet Management

- Tracking
- Fuel management
- Vehicle management
- Alerts
- **Mobile app**
- Back office integration

Automated CAAS

- **Vehicle selection**
- **Dynamic pricing**
- Billing
- Reservation
- Check in/out/**pickup**
- CRM & service
- Registration
- **Consumer app**
- **Cyber protection**
- Passengers history
- **Data warehouse**
- **Reporting**

Maintenance

- Remote in-vehicle supervision
- Remote & predictive diagnostics
- Emergency detection
- Emergency remote driving
- Sensor & safety diagnostics
- Automatic field staff/ SP dispatching

Service Control

- Automatic dispatch
- Human override
- Max fleet availability
- Opt fleet utilization
- Route optimization
- Automatic work flow management
- Off streets parking management
- External data inclusion

Third Party API

- Roaming
- Service aggregation
- Inter networks cooperation agreements
- MAAS integration
- Third party's cooperation agreement

Real Life Examples

Optimize your service operation through

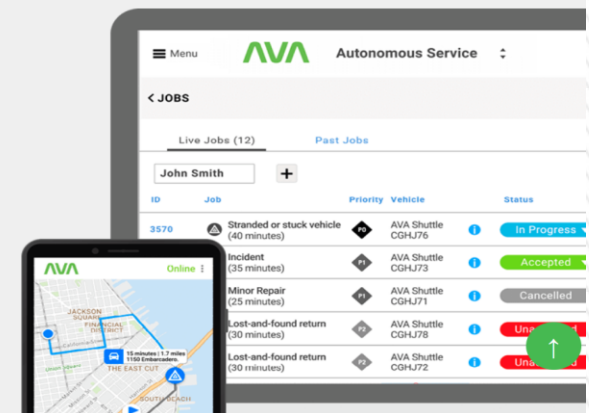


- Dynamic pricing and demand response to update your service based on foreseen or unforeseen weather/events/conditions
- High-status alert monitoring for your operations (State of Charge for Electric Vehicles or fuel level reporting)
- Autonomous vehicle integrity safety (antitheft notifications, software intrusion, etc)
- Metadata analysis based on vehicle utilization and track record/reports (based on graphics, statistics, vehicle scoring, heatmaps, spreadsheets and recommendations), depending on your deployment strategy

A system to match wits with your autonomous vehicles

From workflow management to real-time fleet management and automated alerts, Ridecell keeps your autonomous service running smoothly.

SEE RIDECELL IN ACTION



Thank You

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