**Intermodal User Apps**

App including backend system collects passenger requests and calculates transport recommendations in real time, solving the first and last mile and offer smooth and efficient trips including all modes of transportation.

---

**Shared Autonomous Mobility**

**AD-DRT Bus Shuttle System**

siemens.com/autonomousdriving

---

**Cloud-based Mobility Management System**

Includes different management systems, processes and interfaces for the operation of autonomous shuttles such as a shuttle management, dashboards, incident handling and emergency monitoring.

---

**Fleets of AVs**

Consists of autonomous bus shuttles provided by partners tailored to the needs of public transport on public roads.

---

**Road-side Services**

Road-side services (intelligent infrastructure) enhance environmental perception by providing real-time road status information to facilitate safe and efficient driving.

---

**Intermodal User Apps**

App including backend system collects passenger requests and calculates transport recommendations in real time, solving the first and last mile and offer smooth and efficient trips including all modes of transportation.

---

*) AD-DRT = Autonomous Driving Demand Responsive Transport

---
Key benefits

Transport System Improvements
Road-side services support autonomous shuttle with additional valuable information in order to:
• Improve functional safety of the system by achieving a safety integrity level (up to SIL 3)
• Enable and optimize the overall performance of the vehicle speed, which should lead to 50 km/h without a safety driver
• Integrate vehicles in existing public transport offerings because of higher speed including the optimization of a vehicle’s behavior
• Increase the availability of shuttles for higher asset utilization and overall transport efficiency

~90% road accidents can be avoided by using autonomous vehicles (McKinsey)

Safety & Homologation
• Redundancy and enhanced environmental perception leads to higher safety and road efficiency
• AD-DRT system is vehicle agnostic, independent from any vehicle supplier
• Digital twin simulation with Simcenter Prescan allows fast and resource-saving verification and validation within the development
• Faster system homologation aspected due to two out of two logic (two sources for driving decision making: vehicle and road-side services)

Cloud-based Mobility Management System
One software suite for the entire operation of AV shuttles:
• Software as a service: Flexible and scalable implementation
• Open communication protocol enables vehicle manufacturers for easy integration
• Standardized interfaces and connectivity to 3rd party systems

~90% road accidents can be avoided by using autonomous vehicles (McKinsey)

Expected 50% faster homologation process compared to systems without road-side services (Siemens Mobility)

Published by
Siemens Mobility GmbH
Otto-Hahn-Ring 6
81739 Munich, Germany
contact.mobility@siemens.com
TH 166-200109

Subject to changes and errors. The information given in this document only contains general descriptions and/or performance features which may not always specifically reflect those described, or which may undergo modification in the course of further development of the products. The requested performance features are binding only when they are expressly agreed upon in the concluded contract.