



Towards Automotive IoT and Edge

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A futuristic city street scene featuring a sleek, dark autonomous vehicle in the foreground. The road is marked with glowing blue lines, and other vehicles are visible in the distance. A parking sign with a 'P' is on the left side of the road.

Autonomous

A futuristic city street scene featuring a sleek, dark electric vehicle in the foreground. The car is shown with glowing yellow energy lines flowing through its body, indicating its electric power source. Other vehicles are visible in the background.

Electric

Technology innovation × Social change

A futuristic city street scene at night, featuring a sleek, dark vehicle in the foreground. The vehicle is surrounded by glowing blue lines and a network of connections, symbolizing its connectivity to other vehicles and infrastructure.

Connected

A futuristic city street scene at night, featuring a sleek, dark vehicle in the foreground. The vehicle is surrounded by glowing blue lines and a network of connections, symbolizing its connectivity to other vehicles and infrastructure. A person is walking on the sidewalk, and a red car is visible in the background.

Shared & Services

IoT – Edge – Cloud Overview

IoT Devices

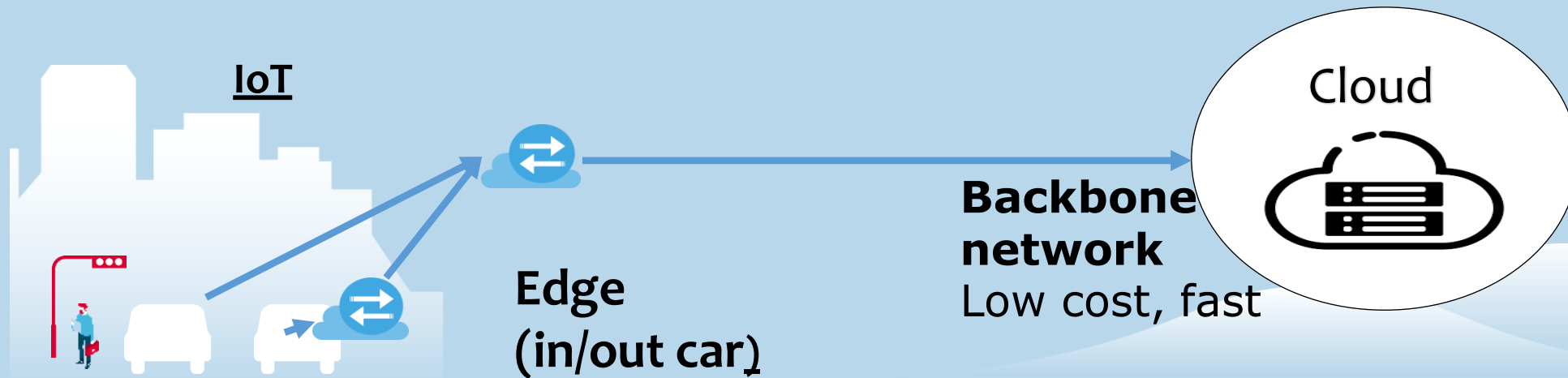
- Lots of **sensors** & **actuators**
- **Limited** computing
- **Limited** power, networking, storage

Edge Computing:

- **Local** computing
 - Faster response
- **Local** data only
- Less data to cloud (privacy)

Cloud Computing

- On demand & **adaptive**
- Fully **managed** HW, SW, reliability, security
- **Economies of scale** regarding HW/energy/maintenance/utilization



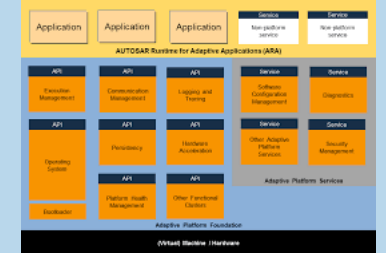
Systems & open Platforms



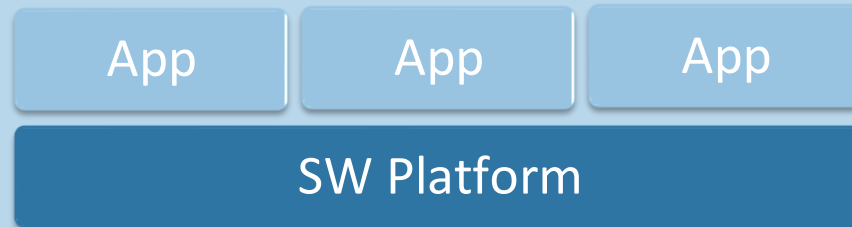
Integration-oriented System

AUTOSAR

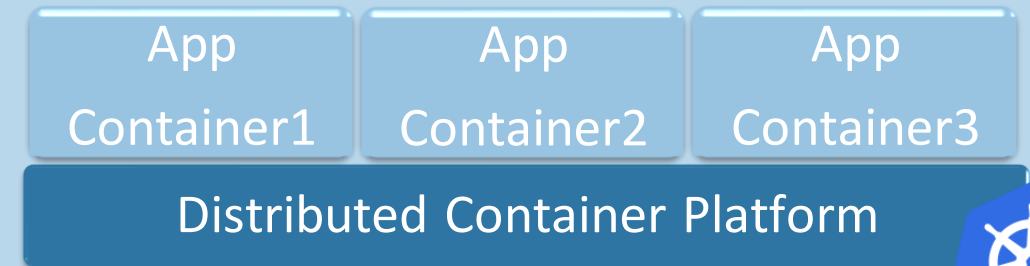
Classic & Adaptive



Standardized Architecture & Components



Successful platforms
let others innovate on top



Containers for deployment and management:
“Microservices” – lightweight virtualization

Google, Inc, <https://github.com/kubernetes/kubernetes/blob/master/logo/LICENSE>

DENSO

Crafting the Core