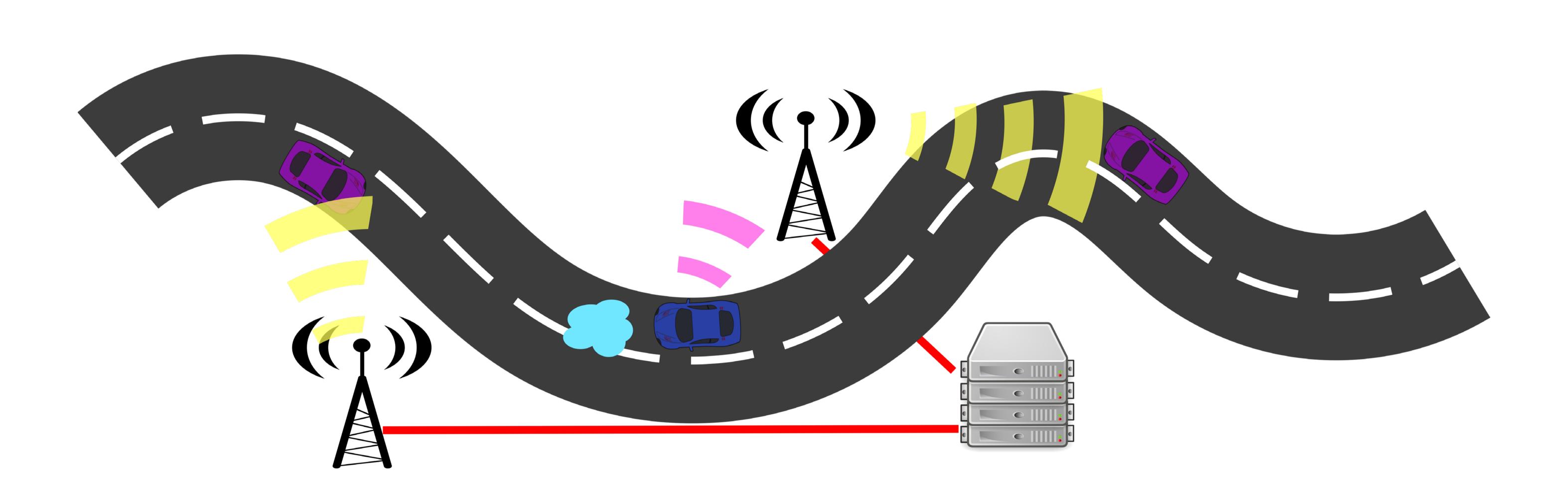


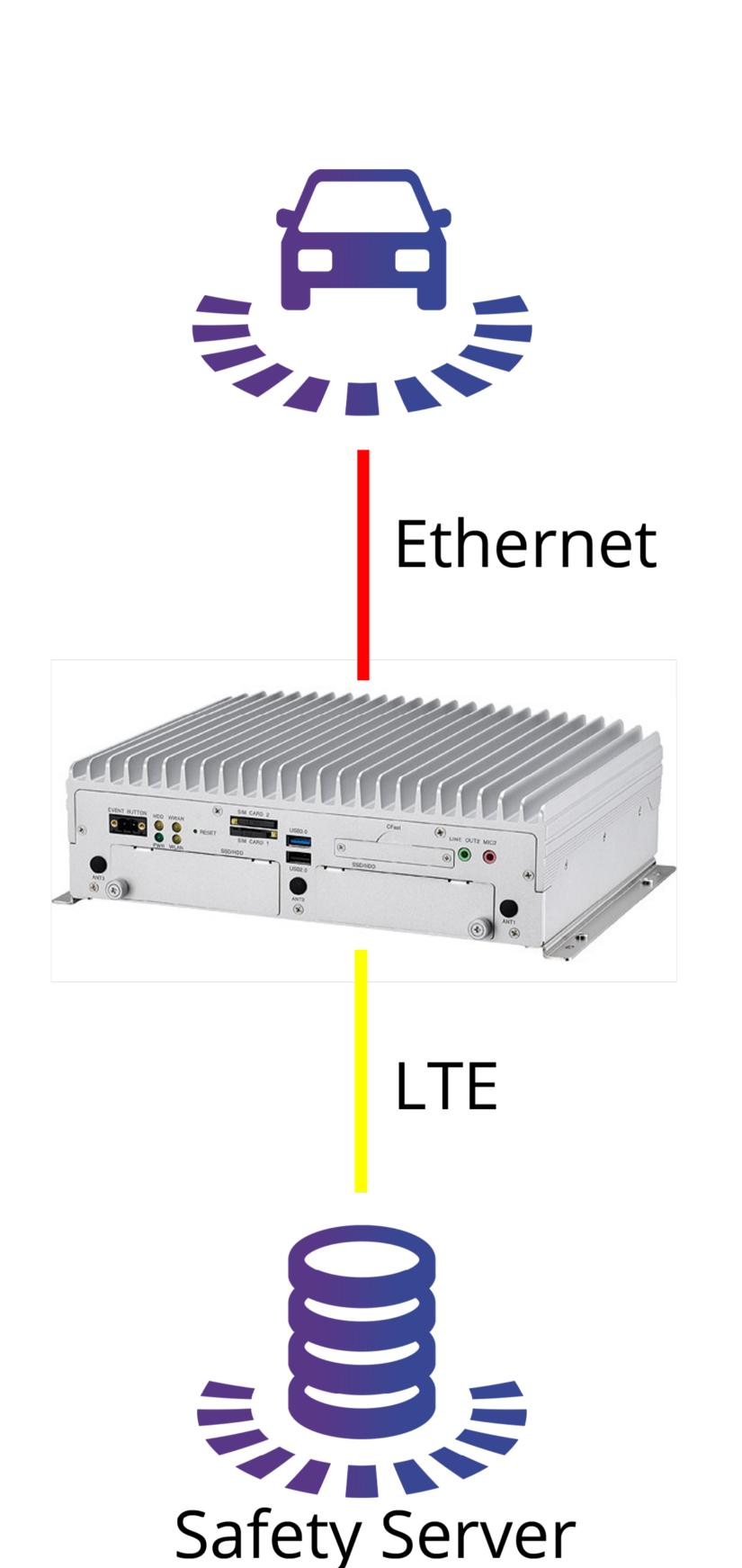


## Data Traffic from a Vehicle's Point of View



## FLOW OF THE COMMUNICATION SYSTEM

- The frontend captures data with onboard sensors (AP2) and sends the data to the AP1-Box via Ethernet.
- The AP1-Box receives data to forward it to the Safety Server.
  - For reasons of efficiency, only data containing dynamic events is sent immediately.
  - Data containing static information is buffered until the buffer limit is reached or a specific time period is expired.
  - In addition, the quality parameters of the LTE connection like SINR, throughput, speed and position of the vehicle are meassured and sent to the Safety Server for aggregation.
- The AP1-Box takes care of providing the data from the Safety Server to the AP2 system.



## PROTOCOL STACK

Seperate protocol for static messages

HTTP

MQTT

Transport Layer Security (TLS bzw. SSL)
(session layer)

Transmission Control Protocol (TCP)
(transport layer)

Internet Protocol (IP)
(network layer)

LTE 4G
(data link & physical layer)



