

Virtual Vehicle Application

BCX Challenge 1



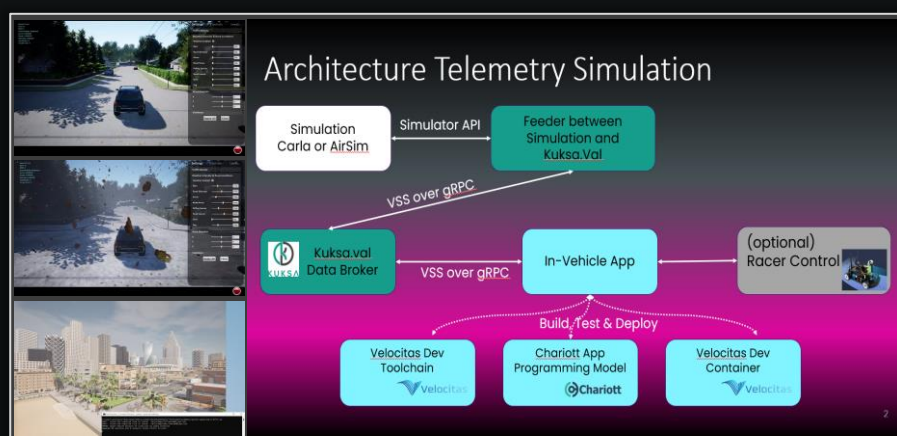
Goal of the challenge:

- › Leveraged virtualized environments to generate vehicle telemetry data and use it to integrate with software-defined vehicle frameworks to build next-generation in-vehicle applications.

Example hacks:

- › Physical to Virtual test of In-Vehicle functions
- › Virtual to Physical In-Vehicle Gaming

Example architecture:



Data source & actuators:

Simulation Tooling

- Carla: [CARLA Simulator](#)
- Airsim: <https://github.com/microsoft/AirSim>

Device (optional)

- PiRacer (based on Jetson Nano)

Projects involved:

- **Chariott**: Application Programming Model
- **Kuksa**: Data Feed Broker
- **Velocitas**: Development Toolchain for containerized in-vehicle applications