Use Cases for Computing-Aware Intelligent Transportation Systems

(draft-jeong-cats-its-use-cases-00)

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Motivation of this Draft

- draft-jeong-cats-its-use-cases-00
  - This draft is intended to give two concrete use cases to CATS Use Cases Draft in terms of ITS:
    - draft-ietf-cats-usecases-requirements-03

- Two ITS Use Cases in this Draft
  - Context-Aware Navigation Protocol (CNP)
  - Edge-Assisted Cluster-Based MAC Protocol (ECMAC)
Introduction: Software-Defined Vehicle (SDV)

Related Work: AUTOSAR (AUTomotive Open System ARchitecture)

[AUTOSAR Classic Platform] https://www.autosar.org/standards/classic-platform

Related Work: Eclipse SDV

[Source] https://sdv.eclipse.org/
Vehicular Network Architecture

Use Case 1: Context-Aware Navigation Protocol

- **Context-Aware Navigation Protocol (CNP)**
  - CNP provides autonomous vehicles with automatic maneuver control for accident avoidance through Vehicular Cloud.

Use Case 2: Edge-Assisted Cluster-Based MAC Protocol

- **Edge-Assisted Cluster-Based MAC Protocol (ECMAC)**
  - ECMAC provides reliable, timely communications with vehicles for safe driving through Vehicular Cloud.

Next Steps

- This draft can enrich Section 4.2 (Computing-Aware Intelligent Transportation) in CATS Use Cases Draft:

- I would like to ask the CATS WG to consider this draft to be merged into the CATS Use Case Draft.

- If the authors of the CATS Use Case Draft agree on my request, I will work on merging with them.