

Topic: COVESA Proposal

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Background - What is COVESA?

COVESA (Connected Vehicle Systems Alliance) is an open, collaborative and impactful technology alliance, accelerating the full potential of connected vehicles. Go to <https://www.covesa.global/> to find out more.

Framing Question

How can we increase the travel range in EV for fixed battery capacity?

Insights

- SOC (State Of Charge) is an indication of the remaining charge present in the battery. Under a power demand, ability of battery to supply required power can be estimated based on the SOC state information. With known battery states and the power supply capability, the maximum distance covered by the car can be estimated.
- Power consumption in EV can be optimized by limiting the power usage of auxiliary loads and optimizing battery utilization over time
- Identify power optimization scenarios for different loads (Display, Speakers, windows etc.) for all possible scenarios

Product Vision

- At different critical SOC conditions (Ex: 20%, 15% 10% etc), the system load and vehicle usage scenarios shall be optimized. The optimization shall be efficient usage of battery power to increase the travel range.
- The optimization solutions shall be defined and documented. In addition, few safety critical feature optimization shall be defined with user authorization advisory messages
- The optimization solution document shall be used as reference guide for all electronic loads in the car

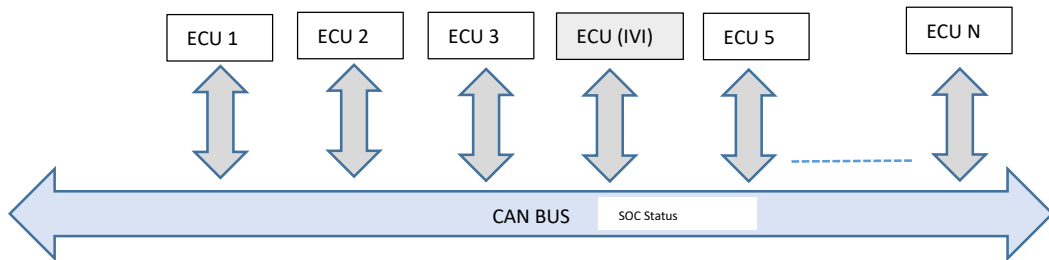
Mobis Project Proposal

- Mobis would like to initiate and lead a dedicated EV power optimization Interest group within COVESA
- An initial seeding project aims at :
 1. Develop standard specification for power optimization
 2. Demonstrate features/scenarios by POC
- Mobis would like to lead this project if other OEMS participate in defining/improving the guidelines for multiple ECU's

TO BE KEPT WITHIN COVESA
High Level Concept:

Date Revised: 23.08.2022

Step 1: Identify the ECU controlling the electronics loads in EV



Step2: Identify the non-safety user critical scenarios. Define the

Optimization solutions at different SOC levels and apply in the ECU logic

Step 3: Perform POC and furnish the absolute power savings for reference
by different platforms

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Date Issued: 23.08.2022
Date Revised: 23.08.2022