eMOBILITY HILS VAAS

Overview
Use case: 48V-12V DC-DC Converter ECU Validation for an Automotive Supplier

INPUTS FROM CUSTOMER
- Requirement specifications – SW, Diagnostics, and Network
- Communication files – DBC, A2L, etc.
- Device transmittal and I/O Characteristics
- Flashing procedure and associated tools
- Technical Safety Requirements
- DUT

HILS REUSABLE ITEMS
- Test Automation framework
- Generic test cases
- HILS HW
  - IO Cards
  - Power supply
  - FIU, Loads, etc.
- HILS SW
- Sensing circuits

HILS MODIFICATION
- Communication/ Rest bus simulation
- HILS Harness and IO model
- Tier one specific Test cases

DELIVERABLES
- Final test cases, reports, bugs
- Updated plant models
- Log files

Savings due to e-Mobility Framework
- HILS set up and validation time for one SW drop: 50% savings due to re-usable modules
- Percentage of reuse: Test cases (40%), Plant models (50%), and Test automation framework (90%)

Updated eMobility HILS based on new requirements and ECU specifications from customer

Savings due to e-Mobility HILS
- HILS HW cost: 74% Cost savings due to usage cost alone (against new HILS set up at customer site)