

## Memory Requirements:

The Memory Requirement can vary according to the number of DTCs and number of PGNs required. Following is the standard memory requirements:

ROM - 15Kb

RAM - 3 Kb

## Applications of J1939 stack in Automotive:

J1939 software stack has been deployed globally for commercial vehicle applications. Following are the examples of such applications:

- Diesel powertrain applications
- In-vehicle networks for trucks and buses
- Fleet management systems
- Recreational vehicles like Caravans

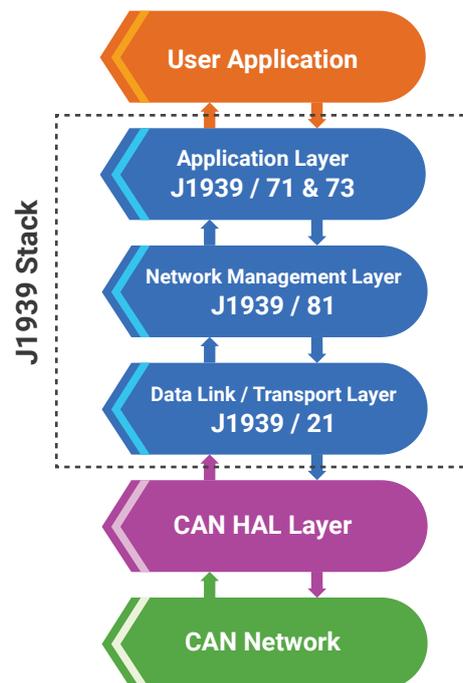
## Engagement Model and Overview:

Embitel offers this industry-wide proven and stable J1939 software the solution under a **one-time licensing fee model**. Under this model, **J1939 protocol stack can be reused for multiple production programs**.

Terms and conditions for business model of the stack is completely aligned with the specific requirements of the customer. We would love to chat over a coffee to discuss your project's requirements and vision. We have partnered with global OEM's and Suppliers for deployment of the stack in several production programs, across the US, Europe and India.

## J1939 Solution Package:

The software package includes set of APIs that facilitate the integration of the J1939 stack with the target application and CAN hardware. This J1939 solution is compliant with SAE J1939 standard and consists of the following layers:



## Features:

- Extended CAN identifier (29 bit)
- Bit rates of up to 250 Kbit/s
- Peer-to-peer Transport Protocol and Broadcast Announce Message(BAM)
- BAM for transmission of data more than 8 bytes
- Network management: Address claim and Address Management
- Defining of parameter groups(PGN)
- Configurable manufacturer specific PGNs and SPNs.
- Active diagnostic, previously active diagnostic and memory access.

## J1939 integration, testing and support services:

- Integration of the platform independent J1939 software stack solution with the target application.
- Development of APIs for integration with hardware platform and target application.
- J1939 Bootloader software for vehicle ECU reprogramming.
- Low-Level Device driver development for CAN.
- Conformance testing.
- Production testing or end-of-line testing using diagnostic tester tool.
- Post-production support after integration with the target application.

## J1939 stack configuration and customizations:

As per the business requirements of the customer, we support implementation of the following configurations:

- The configuration of Diagnostic Messages (DM), Diagnostic Trouble Codes (DTC) and Diagnostic Parameter Group definitions in J1939/73 Diagnostic Layer.
- The Configuration of Parameter Group Numbers (PGNs) and Suspect Parameter Numbers (SPNs) in J1939/71 Application Layer.
- The configuration of Algorithm based Address claim message, for establishing a connection between automotive ECU and the vehicle network in J1939/81 network management layer.
- The configuration of reprogramming sequence based on the end-user application.

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