

## Memory Requirements

The actual memory requirement for UDS protocol stack depends on the number of configurations required by the customer. However, the standard memory requirement is as follows:

ROM - 15Kb

RAM - 3 Kb

## Application of UDS Stack in Automotive Use Cases

As a unified diagnostic protocol, UDS finds its application in all kinds of passenger vehicles; essentially for off-board diagnostics.

Being a quite versatile protocol, UDS has an array of services (functions) that help in performing several tasks including fault diagnostics, automotive ECU reprogramming and remote diagnostics of the vehicle.

## Features

- Hardware/Platform-independent
- Light-weight/Low-footprint UDS stack, designed in MISRA C compliant code
- Compatible with both RTOS and non-RTOS embedded systems
- Transport layer (ISO-15765) can handle data of more than 8 bytes
- UDS protocol Services can be included or excluded based on the project's requirements

## Engagement Model and Overview

UDS Software Stack, designed and developed by our experienced automotive team, is a ready-to-deploy, stable and **pre-tested solution**. UDS protocol stack has helped our global customers to reduce ECU product development cost and time

We offer this Unified Diagnostic Services (UDS) protocol stack under a **one-time licensing fee model**.

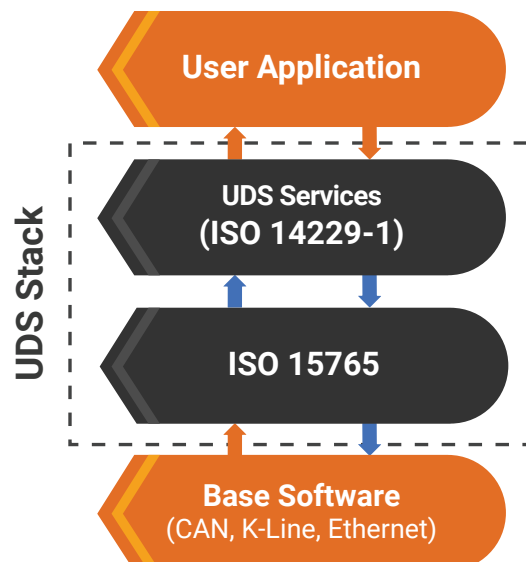
### Benefits of this engagement model for our customers:

- As a customer, **you own the IP rights** of the software as well as **the source code** of the UDS protocol stack
- **Re-usability:** With access to source code and IP rights, our customers enjoy the freedom to integrate the UDS software stack across different **product lines**.

## UDS Stack Solution Package

The UDS protocol stack offers a set of APIs to facilitate communication between the low level software and the application software.

As UDS protocol is hardware independent, this communication can be over CAN, K-Line, Ethernet etc. The UDS Stack solution is compliant with **ISO-14229** and **ISO 15765** standards and consists of following layers:



## UDS Stack Integration, Testing and Support Services

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- Integration of UDS Stack with low-level drivers (Flash Driver, MCU, Timer etc) and with Application Software
- Data Identifier (DID) and parameter configuration according to the project's requirements
- UDS protocol Base software and Bootloader development
- Complete testing including Unit testing, Integration testing, Whitebox and Black-box testing, CAPL script for reprogramming
- Full documentation including HLD (High-level document), LLD (Low-level document), and SRS (Software Requirement Specifications)

## Get in touch with Our Team

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**Aneesh Adkadam**

BUSINESS UNIT HEAD  
Automotive

[sales@embitel.com](mailto:sales@embitel.com)



**Kuldeep Singh**

BUSINESS MANAGER  
Automotive - Europe

[kuldeep.s@embitel.com](mailto:kuldeep.s@embitel.com)