ISO 13400 (DoIP) Protocol-Stack
High-performant and exactly build for you
ISO 13400 (DoIP) compliant protocol stack
The Sontheim Diagnostic over Internet protocol (DoIP) stack is completely implementing ISO 13400. DoIP is specifying communication, especially for diagnostic purposes, within a vehicle based on and completely compatible to the existing Ethernet standard. The amount of electronic control units (ECU) within a system is growing rapidly. Besides an increasing volume of diagnostic data, especially flashing of new firmware, brings the capability of e.g. CAN-Bus to its limits. Therefore DoIP is utilizing the synergies, this broad band communication offers, based on a widely spread and standardized communication system. The diagnostic communication over IP supports the standardized service primitive interface as specified in ISO 14229-2.

Performant and modular software design
A performant programming and clearly defined interfaces are essentially important for the creation of protocol stacks. Due to our modular software design, using socket interfaces, our DoIP protocol stack can be easily integrated into your particular software and hardware architecture. The Sontheim protocol stacks were often ported on various hardware platforms and micro controllers, such as PowerPC, ColdFire MCF548x, Infineon XC 164CS, Atmel AT89C51CC03C ARM7 LPC2458, Star12, HC12.

Multi-application capable - Supporting ECU Firmware and Tester System
The DoIP protocol stack is able to handle different applications on the ECU and performing routing functionality. Besides an embedded ECU (Server) side implementation, also a PC-based Tester (Client) side DoIP protocol stack can be provided and be adapted to your particular Tester architecture. Using Sontheim DoIP protocol stack on both server and client side, assures a maximum of compatibility.

Due to our extensive experience in the development and adaption of protocol stacks, we could offer intensive support in DoIP stack integration.
A maximum support of DoIP mechanism and configuration possibilities

Our DoIP stacks are handling completely the following mechanism specified by ISO 13400:
- Vehicle Announcement Message/Vehicle Identification
- Diagnostic Power Mode
- Alive Check
- DoIP Entity Status

Furthermore the use of customer specific payload is supported by our DoIP Stack implementation. For a practical use, the protocol stack is configurable and providing mechanism for manufacturer specific routing options (Routing Activation).

Protocol Overview

For specific voting requirements and a customized solution, we provide you with a team of project workers and software specialists. If you are interested we are looking forward to your request!
We are looking forward to your enquiry. For a personal advice and detailed information please refer to our specialists: