VECTOR >

D-PDU API

Standardized Vehicle Communication over D-PDU API (ISO 22900-2)

What is a D-PDU API?

The D-PDU API is a programming interface, standardized in ISO 22900-2, for accessing a Vehicle Communication Interface (VCI).

D-PDU API abstracts from the underlying VCI, especially from implementation of the communication protocol.

As a result, an application which is based on a D-PDU API can be created independently of the VCI and in particular without a dedicated implementation of the communication protocol.

Overview of Advantages

Use of existing hardware

Already existing Vector network interfaces can easily be extended with the D-PDU API and are immediately ready for appropriate applications.

Optimal performance

The D-PDU API from Vector uses the flexibility and features of the powerful Vector network interfaces. Therefore, it offers optimal performance for your applications.

Simultaneous communication

The D-PDU API can share one channel of the Vector network interfaces with other Vector tools. So a customer-specific application can access the bus over the D-PDU API, while for example CANoe, CANalyzer and/or CANape run measurement or analysis tasks on the same channel. This eases for example also the troubleshooting in D-PDU API based applications.

Cost-effective solution

Vectors D-PDU API is a cost-effective solution especially for OEMs and suppliers who already use the Vector network interfaces and who are additionally use or develop ISO 22900-2-based applications. Therefore, the Vector bus interfaces can also be used for customer-specific diagnostic and flash applications. An additional VCI hardware is no longer required.

Application architecture
with use of the
D-PDU API
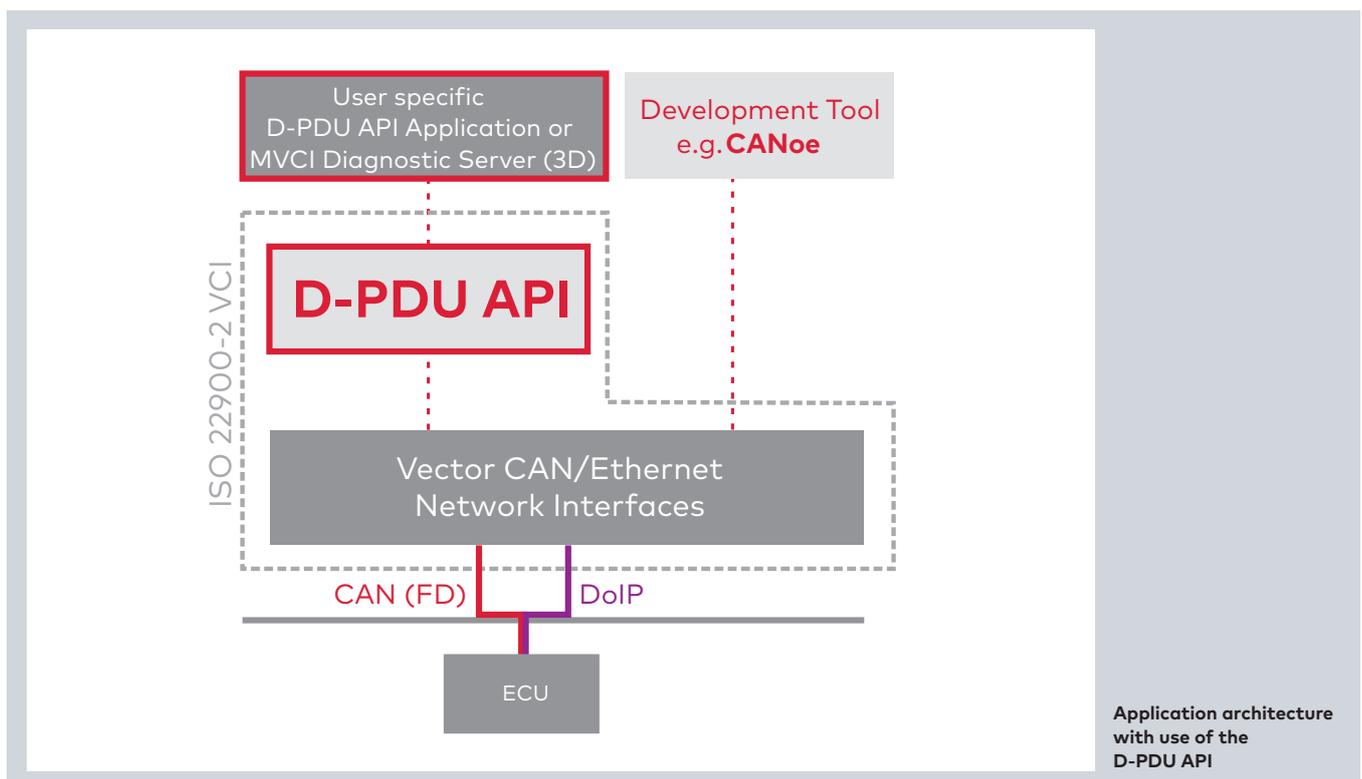
Functions

Supported bus systems:

> CAN, CAN FD, Ethernet (DoIP)

Supported standard:

> ISO 22900-2:2017

Supported ISO 22900-2 protocols:

> ISO UDS on CAN (ISO_15765_3_on_ISO_15765_2)

> KWP2000 on CAN (ISO_14230_3_on_ISO_15765_2)

> ISO RAW CAN (ISO_11898_RAW)

> ISO OBD on CAN (ISO_OBD_on_ISO_15765_4)

> ISO UDS on DoIP (ISO_14229_5_on_ISO_134000_2)

Multi Channel Support:

Supports up to 8 CAN/CAN FD channels on one Vector network interface (e.g. VN7572 or VN8970).

Application Areas

The D-PDU API from Vector is used in the field of ECU development and diagnostics to create various OEM-specific applications such as diagnostic testers. 32-bit or 64-bit applications can be developed flexibly and efficiently based on the 32-bit or 64-bit library. It lets developers focus on the application logic.

In addition, the D-PDU API enables the use of Vector network interfaces in applications that are based on an ISO 22900-3 conformant diagnostic server.

Supported Network Interfaces

> The Vector D-PDU API library can be used with the Vector CAN and Ethernet network interfaces.

More information: www.vector.com/d-pdu_api_en