



# CASTEL *APJ* Product Introduction



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# ① 【 API Product Overview 】

## What is Gateway API?

CASTEL's Gateway API is a set of application programming interfaces , it can helps to build rich , interactive business applications based on the OBD data .

## Working Theory

Gateway API access to the OBD device via TCP protocol , and converts the data between the OBD device and the application layer.

## Operating Environment

Both support Windows and Linux platform



# ① 【 API Product Overview 】

## What Castel API can be done?

No need to spend your effort to understand the OBD underlying data processing , internal work details and OBD communication protocol . This API allows you to simplify the development process while building your own service platform , and focus on the application of the OBD data processing .

## How to use Castel API?

The API provides a standard C language interface to the windows/Linux , to send and receives OBD data by requesting a few index please refer to user guide (Details please refer to user guide)



## ② 【 API Product Overview 】

### OBD interfacing

- **Initialization HGAPI**
- **Anti- initialization HGAPI**
- **Start to accept the OBD connection**
- **Close the OBD monitor port**

This feature is initialized via the API as well as anti-initialized to authenticate and access to OBD device .





## ② 【 API Function Introduction 】

### OBD Event-triggered Function

#### ➤ Event-triggered

When OBD is connected normally, and uploaded the underlying data, API converts and triggers data based on different types of data. The service platform can use the related data to build an application.



## ② 【 API Function Introduction 】

### OBD Configuration Management

- Add OBD information data
- Delete OBD information data
- Request the number of OBD in the HGAPI
- Request HGAPI OBD information
- Inquiry the online No.s of OBD device



It achieves the API database maintenance and management (Delete and inquiry OBD information) .

## ② 【 API Function Introduction】

### OBD command sending

- Send OBD command
- Request the current location of OBD

1、 It controls the data uploading from OBD, for example alarm parameters configuration, PIDs uploading etc.

2、 Inquiry vehicles  
(Request OBD current location).





### ③ 【 OBD Support Data 】

#### Data Instructions

- ➡ OBD devices supports data reading from the vehicles, including RPM, VSS, temperature, DTCs, alarm, emissions etc, the specific data which needs to be monitored can be selected, maximum 10 PIDs are allowed to monitored once.
- ➡ Data upload interval time is configurable from 10s to 60s.
- ➡ OBD supports 80 types of PIDs reading, but usually each vehicle only supports part of them
- ➡ Technical details please refer to the user guide of API



## ④ 【 Data Security of HGAPI 】

- ID register: Operators are required to register CASTEL's OBD IDs to service platform 1st, HGAPI request the ID list from service platform, HGAPI only accept data from those authenticate devices which have been registered in the service platform
- Login verify:HGAPI requires OBD devices to do login verify before sending data, the OBD device should send data as per of HGAPI's request



## ④ 【 Data Security of HGAPI 】

- Fixed upload pack verify: The pack verify including protocol header, time, device ID, data length, Verify code, protocol type and protocol details etc.
- Connection policy: The connection way between HGAPI and OBD are long term connections based on Socket.
- Repeated data detecting: HGAPI detects if the authenticate OBD devices are sending repeated data, it will filter those data which have been uploaded to the server already





# Thank you!



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