



**MECH5**

Delivering  
Any Car Data,  
Anywhere,  
Anytime

# The Connected Car Conundrum

The global Connected Car market is set to triple to £39 Billion by just 2018, but the vast majority of current connected car business models currently rely on outdated OBD communications standards from 1996 (SAE J1979) for their data acquisition.

- Under these old standard OBD protocols, access to a car's electronic control units (ECUs) is limited to generic engine only emissions related data guided by EU and US environmental pollution legislation.
- These OBD standard protocols are thus unable to provide access to any other ECUs within the vehicle such as: dashboard, service, infotainment, brakes, traction control, safety, body control, autobox, steering, suspension, immobilizer, etc.
- As modern vehicles can often contain 30 ECUs or more, it is clearly a massive disadvantage not to be able to access ALL of those ECUs to retrieve ALL the OEM specific data and functions carried within.

A wide range of companies are trying to develop various different business models, which require services that rely on extensive data from ECUs throughout the vehicle. The generic OBD method just can't be used for this purpose.

Despite this huge market potential, and because of the current limitations described above, existing aftermarket telematics offerings are struggling to provide adequate solutions.



# The Connected Car Solution

Based on 20 years' worth of automotive engineering expertise, Nebula Systems' secure cloud based, real time, vehicle data analytics platform (MECH5®) offers remote access to any data stream from, and in some cases control of, any ECU from virtually any car.

Our platform addresses the conundrum by using manufacturer specific communication protocols, enabling remote access to anywhere between 100 to 1000 times more data than most competitive offerings. Our solution is thus an essential facilitator of the Connected Car 'Ecosystem', because it delivers the widest possible range of data and thus enables a myriad of monetisable applications including, but not limited to:

- Vehicle data insight
- Complete vehicle health checks
- Remote servicing
- Performance enhancement
- Usage monitoring (driver behaviour)
- Vehicle network security
- Remote activation of components



## How MECH5 Works:

MECH5 works via a small Vehicle Communication Interface (VCI) or telematic dongle which plugs into the vehicle's diagnostic socket. It then connects securely to the cloud via our X-Link comms app, using either GSM (when using a telematic dongle) or through a Smartphone via Bluetooth (when using our own SCAN4/5 VCI or another providers hardware)

## Flexibility is embedded within our platform:

- *MECH5 is hardware agnostic* - allowing us to work with multiple Bluetooth or GSM vehicle interfaces (including our own),
- *MECH5 is OS agnostic* – built in pure HTML5, operators can use any web connected device with a browser, Apple iOS, Android or Windows
- *MECH5 access* – flexibility for the business partner or client by enabling different data access methods: mobile apps, white label web applications, API to a client's back end systems or straightforward licensing.

**Our clients can take as much or as little data and functionality from MECH5 as they wish**



## Business Use Cases:

**Usage Based Insurance** (Driver behavior): actual odometer, speed, gear selected, turn Signals, steering wheel position, volume of Infotainment

**Fleet Management:** odometer, fuel level, service Information (time/distance), battery health, tyre pressure, fluid levels, remote diagnostics and reset

**Roadside Recovery:** OEM diagnostic fault codes, live data, activation of components, OTA coding

**Car Rental:** VIN, odometer, fuel Level, service information (time/distance), battery health, tyre pressure, fluid levels, remote diagnostics and reset

**Car Sharing:** OEM diagnostic fault codes, live data, activation of components, OTA coding

**Fuel Rewards:** fuel level, odometer

**Market Research:** infotainment usage (FM/AM frequency, bluetooth streaming, CD/DVD, phone in use)

**Franchised OEM dealers:** OEM diagnostic fault codes, live data, activation of components, OTA coding

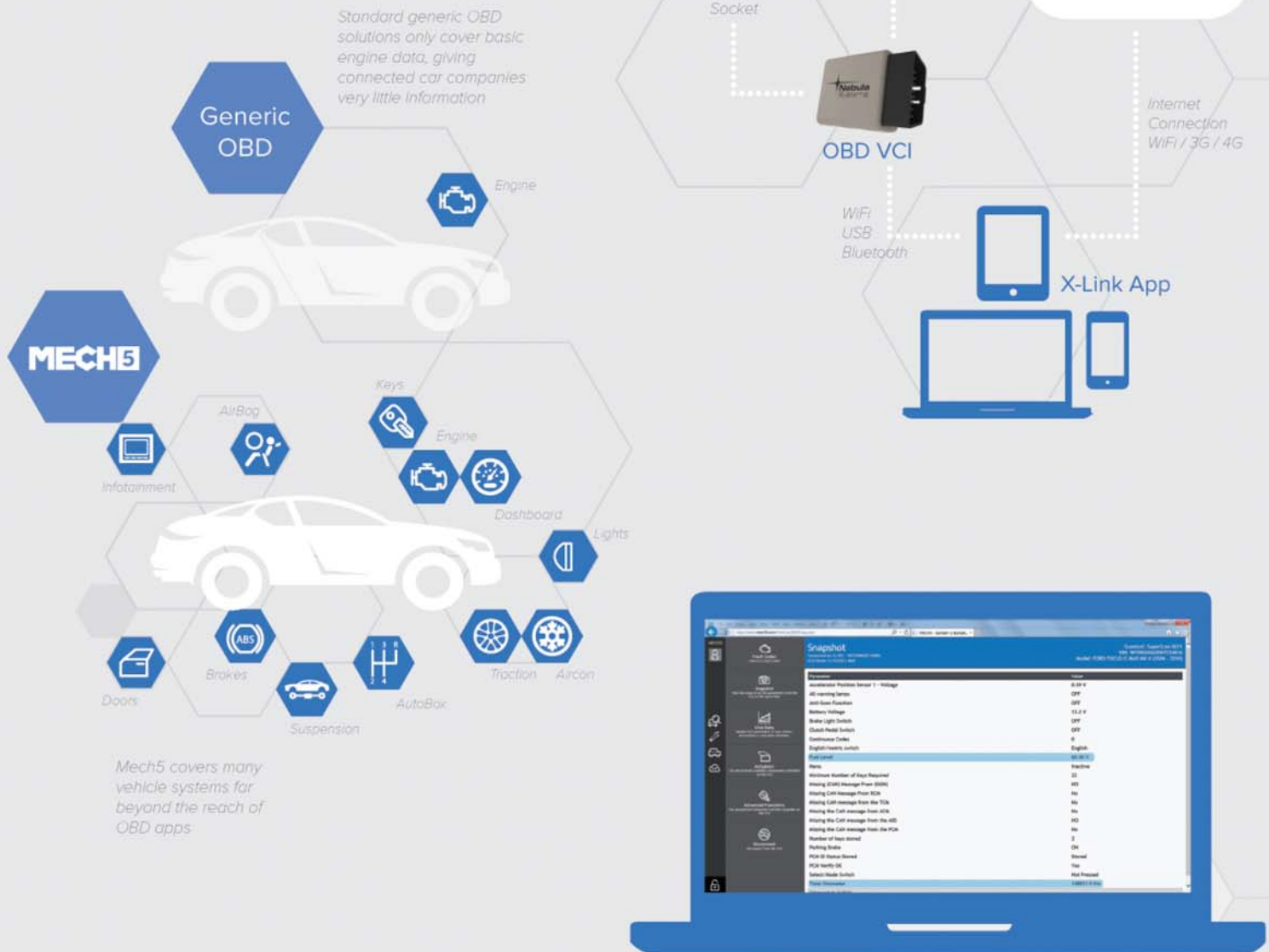
**Independent Garages:** OEM diagnostic fault codes, live data, activation of components, OTA coding

**Government:** road usage/road taxation – odometer, car occupation, speed

**Weather Forecasting:** outside temperature, fog lights ON/OFF, windshield wipers ON/OFF, ice warning alert ON/OFF

## How MECH5 works

### The simple difference between OBD generic and MECH5 data access



MECH5 screenshot highlighting Fuel Level & Odometer data

### About Nebula Systems

Nebula Systems Ltd, is a UK company formed by the founders of DEC Automotive (decautomotive.com.ar), a world leader in automotive diagnostic systems development and Maverick Technology (mavericktechnology.co.uk), one of the UK's leading aftermarket diagnostic tool distributors. We have a combined experience in scantool development of over 20 years.

We are a small but very passionate bunch of people whose ultimate goal is to develop cloud based technology that will revolutionize the automotive diagnostics and telematic markets.

### Investment Opportunity

Nebula Systems is a growing startup and we are always interested to hear from parties that may wish to learn more about investing with us. Please email us at [invest@nebulasystems.com](mailto:invest@nebulasystems.com) if you have an interest in this area.

Please CONTACT US for more information  
If you would like to know more about MECH5 or have a complete remote demonstration, please get in touch with us and we would be happy to help

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