

# RVI – V2X Board



# Technical Purpose



Send data from any vehicle



over the air

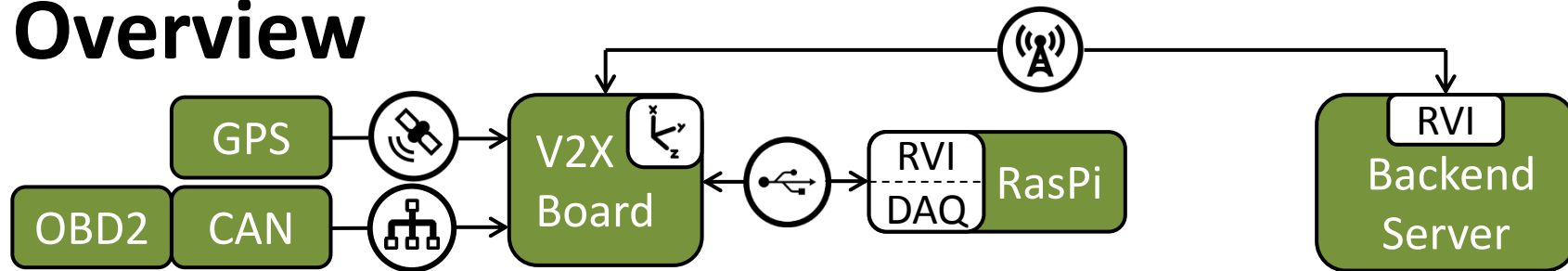


to the outside world

# Strategic Purpose

***Bring the creativity of the startup community to the OEMs by providing a consumer-grade development platform closely linked to the automotive eco system***

# Overview



## V2X Board [OSS Hardware by JLR]

Integrates GPS, CAN, OBD-II, 2G/3G, and accelerometer data into a single USB connection

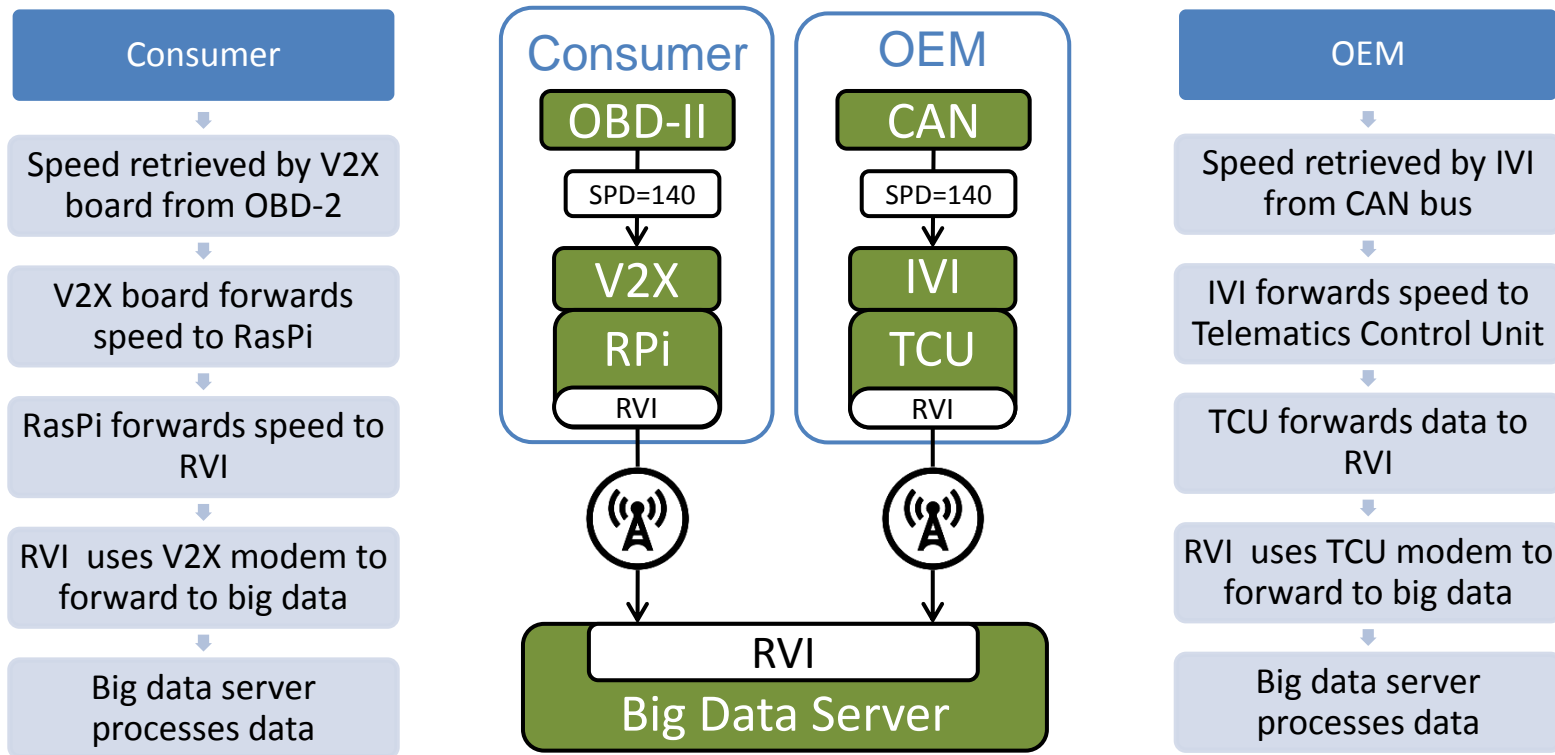
## Raspberry Pi

Data Acquisition from V2X board. V2X board M2M modem used to communicate with backend

## Backend Server

Receives and analyses reports transmitted from RasPi / V2X board combination

# Comparing two stacks



# Feature Benefits

2G/3G Modem	<ul style="list-style-type: none"><li>• Provides communication to the outside world</li></ul>
GPS	<ul style="list-style-type: none"><li>• Provides positioning for on-board apps</li></ul>
Accelerometer	<ul style="list-style-type: none"><li>• Aids navigation and situational awareness</li></ul>
Single USB connection	<ul style="list-style-type: none"><li>• Clean data pipe and power between V2X and Raspberry Pi</li></ul>
Power Management	<ul style="list-style-type: none"><li>• V2X board can wake up Raspberry Pi at a specific time, on OBD-II activation, or on a received SMS</li></ul>
Open Source and Hardware	<ul style="list-style-type: none"><li>• All hardware design and associated software is open source licensed</li></ul>

# Package content

V2X Board with SIM	<ul style="list-style-type: none"><li>• Turn-key system with mobile subscription</li></ul>
RasPi RVI	<ul style="list-style-type: none"><li>• Specific RVI configured to use M2M modem of V2X board</li></ul>
Python Libraries	<ul style="list-style-type: none"><li>• RasPi libraries enabling python-based RVI services to interact with V2X board</li></ul>
Sample RasPi Service	<ul style="list-style-type: none"><li>• Sample service to read OBD-II data and export it, real time, to the backend server</li></ul>
Backend Server Account	<ul style="list-style-type: none"><li>• Pre-provisioned account to receive V2X-originated data</li></ul>
Sample Android app	<ul style="list-style-type: none"><li>• Android app to retrieve and display real-time V2X data from backend server</li></ul>

# Thank You

Magnus Feuer

Lead System Architect – Open Software Initiative  
mfeuer@jaguarlandrover.com  
+1-949-294 7871

