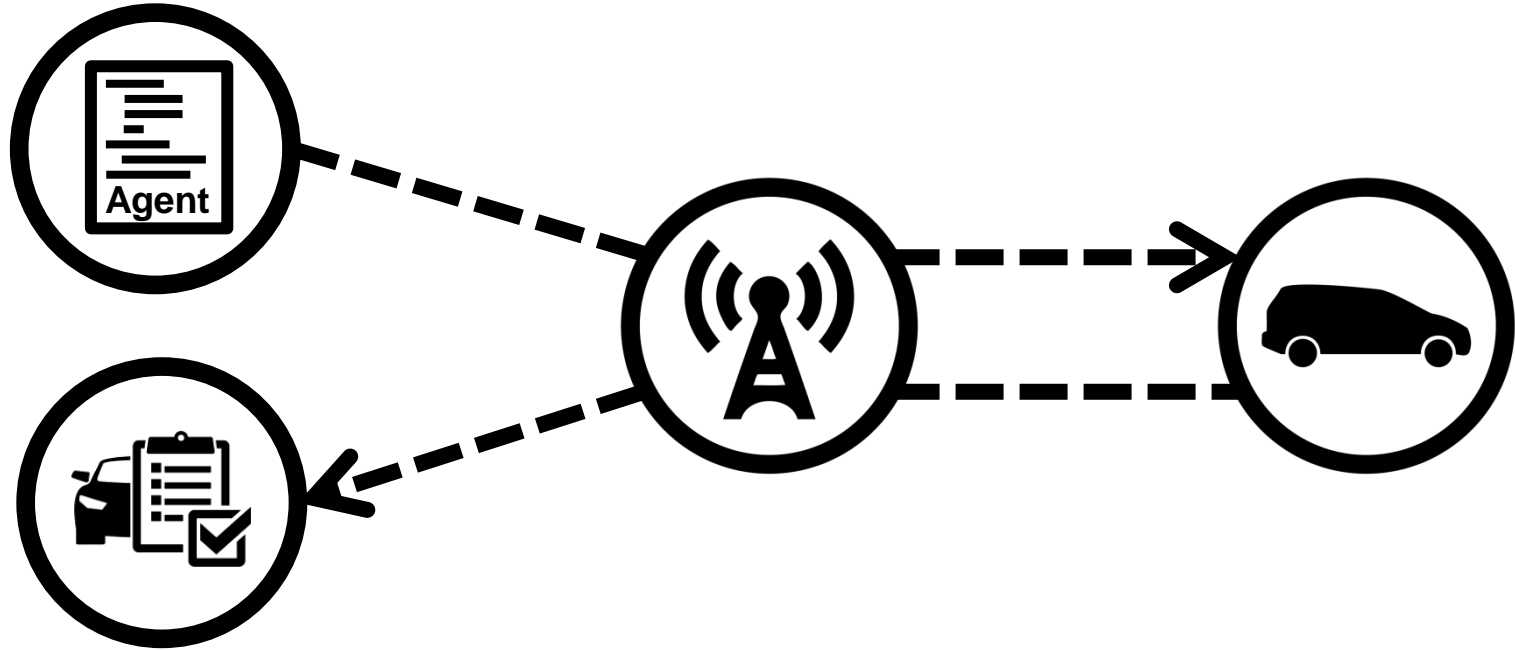# RVI - Dynamic Agents

# Purpose

Deploy remote probes
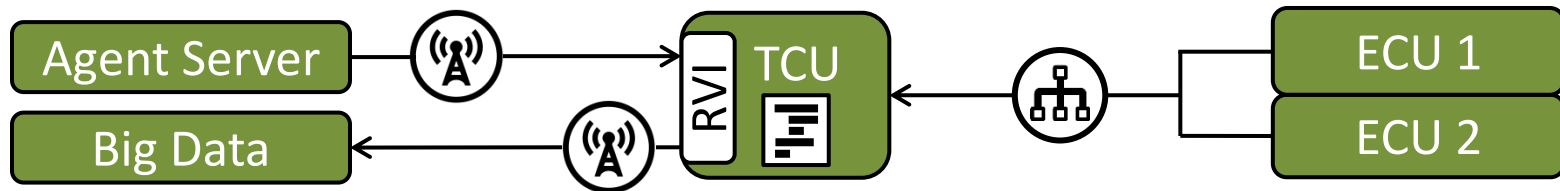
to monitor vehicles

and report results

# Overview



**Agent Server [Cloud]**
Distributes dynamic agents over the air, using RVI, to vehicle TCUs

**TCU [Head Unit]**
Executes dynamic agents in background to monitor ECU data streams
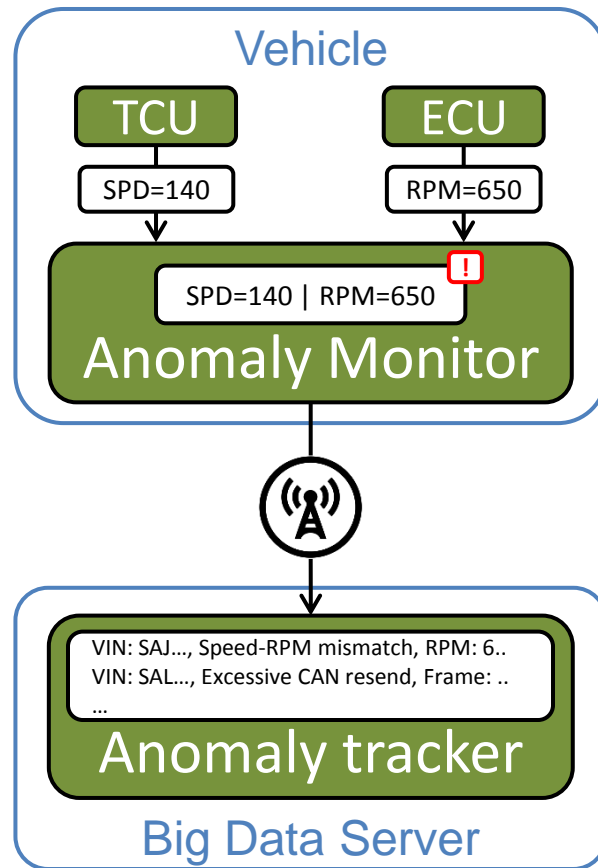
**Big Data [Cloud]**
Receives and analyses reports transmitted from dynamic agents through RVI

# Use case: Health Monitor

Anomaly monitor agent reads data from vehicle buses

Any anomalous data detected by the agent is reported to the big data server

Big data server profiles all incoming data to generate failure trends and analysis

**Vehicle**

TCU

ECU

SPD=140

RPM=650

SPD=140 | RPM=650 !

Anomaly Monitor

VIN: SAJ…, Speed-RPM mismatch, RPM: 6..
VIN: SAL…, Excessive CAN resend, Frame: ..
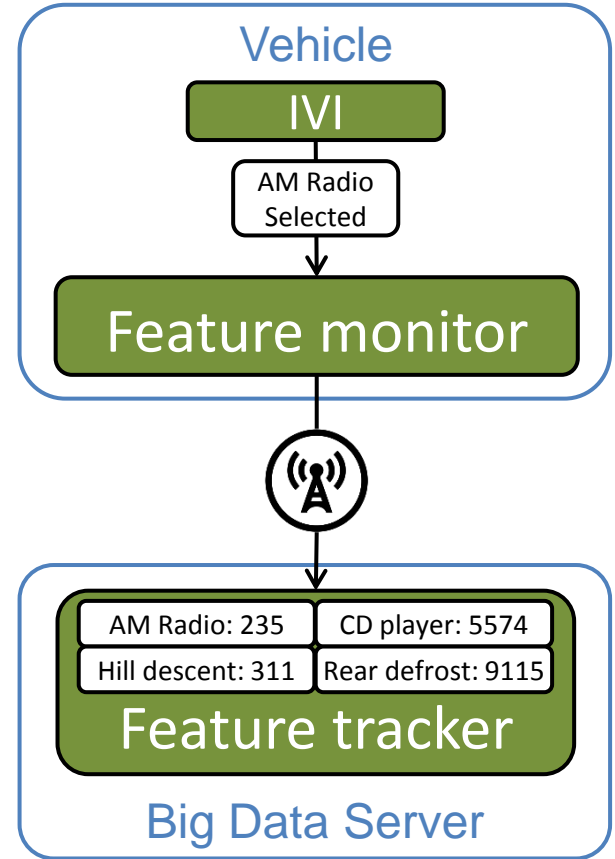…

Anomaly tracker

Big Data Server

# Use case: Feature usage

Feature monitor records all in-cabin feature usage

Periodic reports are sent by the feature monitor to the big data server

Feature tracker compiles report of fleet-wide feature usage

**Vehicle**

IVI

AM Radio Selected

Feature monitor

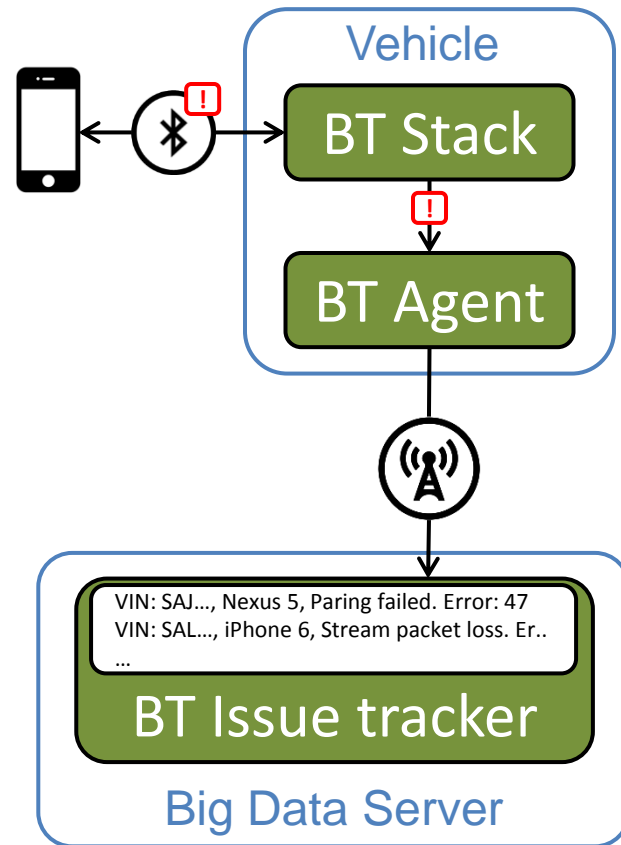| AM Radio: 235 | CD player: 5574 |
| Hill descent: 311 | Rear defrost: 9115 |

Feature tracker

**Big Data Server**

# Use case: BT issue tracker

Bluetooth issue agent monitors pairings, streaming, and other possible failure points in the IVI BT stack

Any BT error is logged with circumstances and equipment ID

Error reports are transmitted to backend server for further analysis and bug fixes

**Vehicle**

**BT Stack**

!

!

**BT Agent**

VIN: SAJ…, Nexus 5, Paring failed. Error: 47
VIN: SAL…, iPhone 6, Stream packet loss. Er..
…

**BT Issue tracker**

**Big Data Server**

# Thank You

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