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
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

Feature tracker

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

Big Data Server
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.

Use case: BT issue tracker

- Vehicle
  - BT Stack
  - BT Agent
- Big Data Server
  - BT Issue tracker
  - VIN: SAJ..., Nexus 5, Paring failed. Error: 47
  - VIN: SAL..., iPhone 6, Stream packet loss. Er...