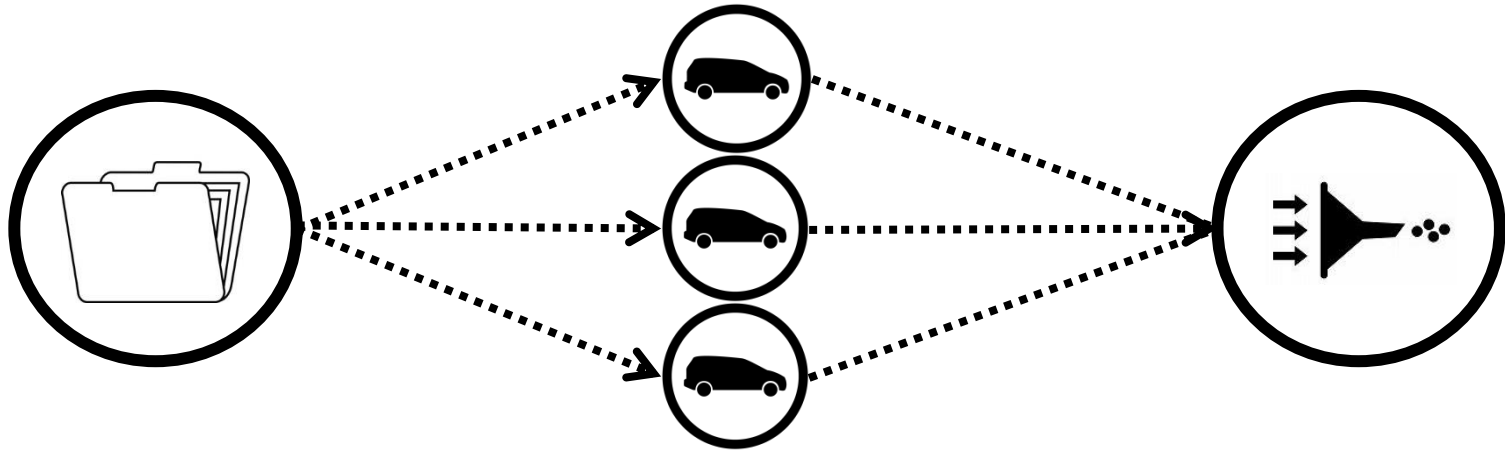


RVI Dynamic Agents



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Purpose

To create a dynamic agent that runs in the background completely separate from all other processes given a specific task until the expiration date of the agent.



Case by Case Agents

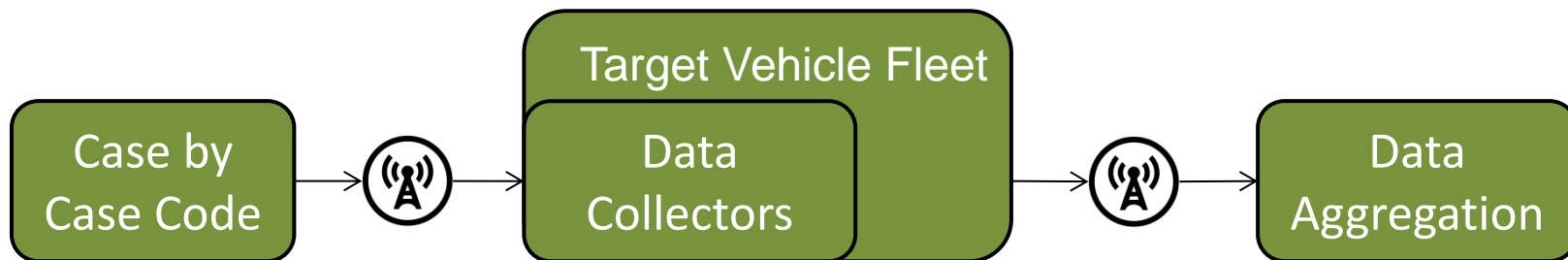


Any RVI Enabled Vehicle



Unified Data Logging

Overview



Script loader and vehicle targeting

Web launcher to specify what code to send along with how long and who to send to

Data collectors on the fleet[Raspberry Pi]

Receives code and runs independently of all other services and reports if needed

Receive and process data[Big Data Logging]

Will either process data in vehicle or send to backend server for data aggregation

Case 1 : Geofencing

Launch agent to send geofence agent with specific perimeter

RVI backend server pushes code to remote client

Agent runs in background and continuously monitors GPS position

If out of bounds detected, start GPS data logging to backend and notify

Case 2 : Fleet Issues

Launch agent to detect specific reported problem.
ex: TPS + ABS both active

RVI backend server pushes code to car models in question

Agent runs in background and monitors TPS + ABS signals

If both signals are triggered at the same time, start complete data logging

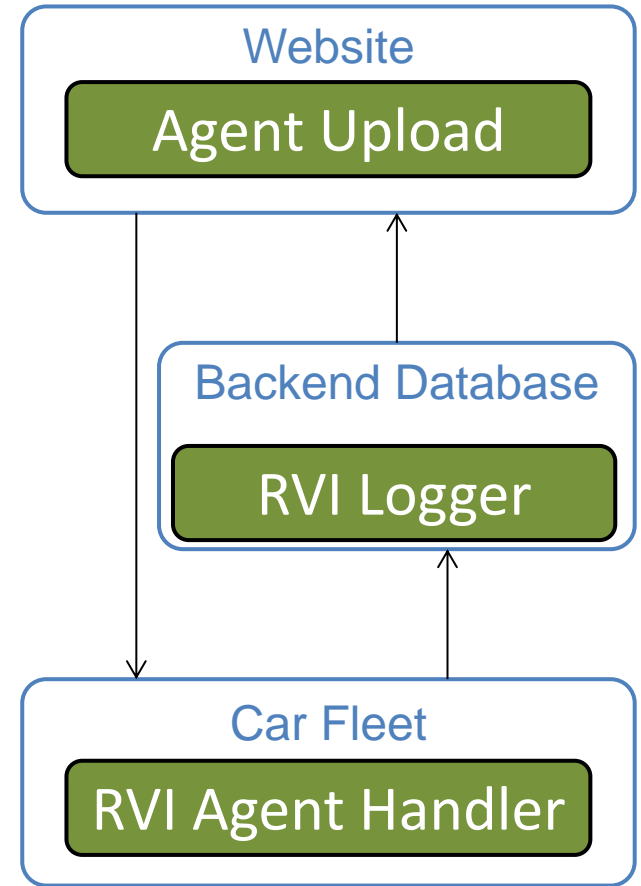
Backend Loader/Server

Code is uploaded to database to be distributed to target cars and time limit to run code is set.

Server calls an RVI service from all the available connected devices that have been selected.

Agent is transferred to client through service calls.

Agent stays and runs on client until expiration date, reporting back to backend database server if needed.



Vehicle

Agent Package

Register service for dynamic agents onto local RVI.

RVI backend sends signal to download new agent through set up service call.

Download agent and store code in separate temporary local directory.

Code runs until expiration date and interfaces with car as needed.

Send data to backend server if needed and send shutdown signal to server.

RVI

Agent Handler

Independent
Temporary Storage

Independent
Process Run Time

Virtual Environment

Raspberry Pi /
Connected Device

Thank You

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