Architectural Block Diagram of Vehicle tracking using SIGFOX and IRIDIUM Satellite Module

VEHICAL 1 / MQTT PUBLISHER

SENSORS(GPS NEO-6E, MPU6050)

COMMUNICATION MODULE(SIGFOX LPWAN, IRIDIUM Module, Satellite Communication)

VEHICAL 2 / MQTT PUBLISHER

SENSORS(GPS NEO-6E, MPU6050)

COMMUNICATION MODULE (SIGFOX LPWAN, IRIDIUM Module, Satellite Communication)

AI – Based backup

Connectivity monitor (Decision tree autoencoder)

Position Estimator (Kalman Filter)

Reconnection predictor (Long short term memory)

SIGFOX LPWAN

IRIDIUM SATELLITE COMMUNICATION

Base Station

Satellite Constellation

Cloud API (Rest API or HTTP)

Ground Station

MQTT Broker

Subscriber Client / Web Application / Dashboard