GENIVI Spring 2016 AMM Demo Plan Details

Meeting Notes

genivi-ocf - 19 May - meeting notes

genivi-ocf - 13 May - meeting notes

genivi-ocf call - 15 April - meeting notes

genivi-ocf call - 8 April - meeting notes

genivi-ocf call - 1 April - meeting notes

genivi-ocf call - 23 March - meeting notes

genivi-ocf call - 18 March - meeting notes

genivi-ocf call - 11 March - meeting notes

genivi-ocf call - 4 March - meeting notes

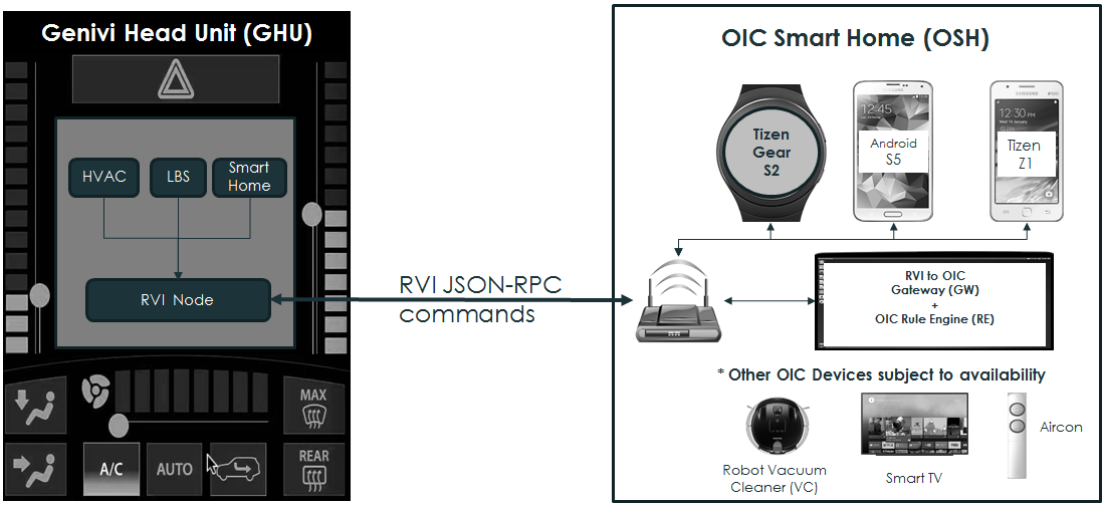
genivi-oic call - 19 February - meeting notes

genivi-oic call - 12 February - meeting notes

genivi-oic call - 5 February - meeting notes

GENIVI+OCF Joint Demo Setup

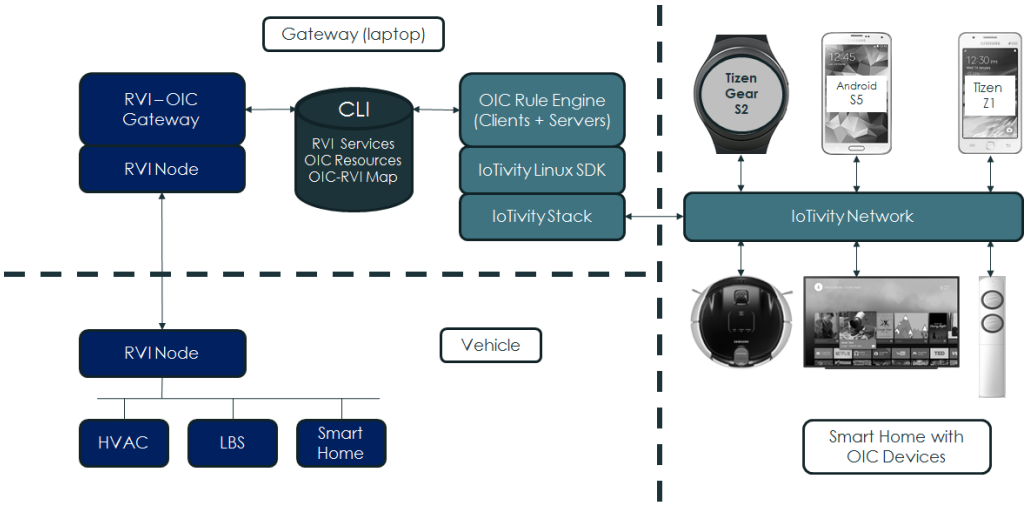
The following diagram illustrates the joint demo scenario.



Demo Outline

1. The Genivi Head Unit will use Remote Vehicle Interface (RVI) node to send the JSON payload to the home gateway.
2. The home gateway runs the peer RVI nodeand translates the JSON-RPC to OCF compliant payload.
3. Depending on the scenario the home gateway routes the message to the appropriate home devices.
4. Communication from the home devices to Genivi Head Unit is also supported by the Gateway.

GENIVI+OCF Gateway Concept



Gateway Details

1. The gateway only serves as a temporary implementation for proof of concept.
2. The Home Gateway(RVI-OCF) consists of an RVI node and an OCF Client+Server combination.
3. Configuration files to change the attributes of resources hosted by RVI and OCF.
4. The gateway will also host a simple rule engine that helps address the needs of some of the demo scenarios.
5. IoTivity 1.0.0 will be used for OCF gateway and devices.
6. RVI version to be decided by JLR.

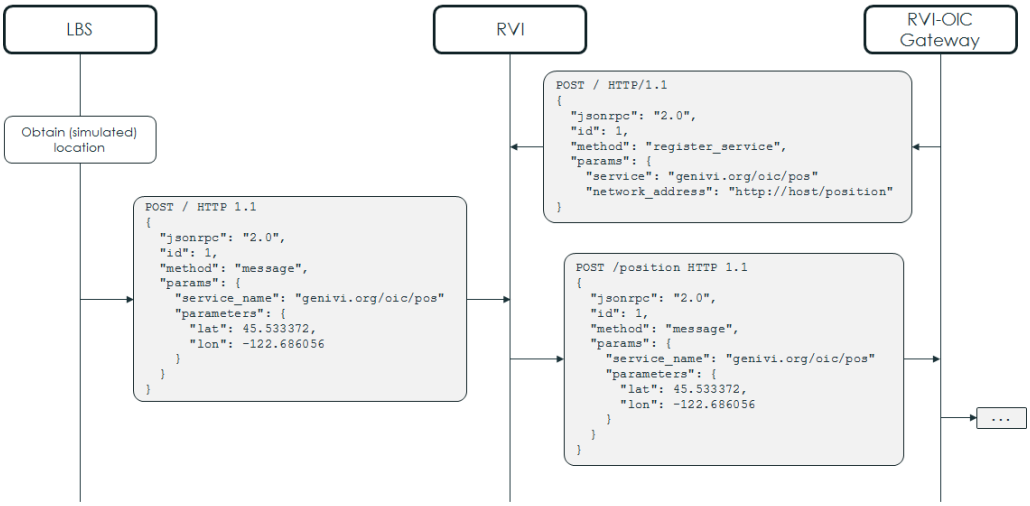
Demo Scenarios

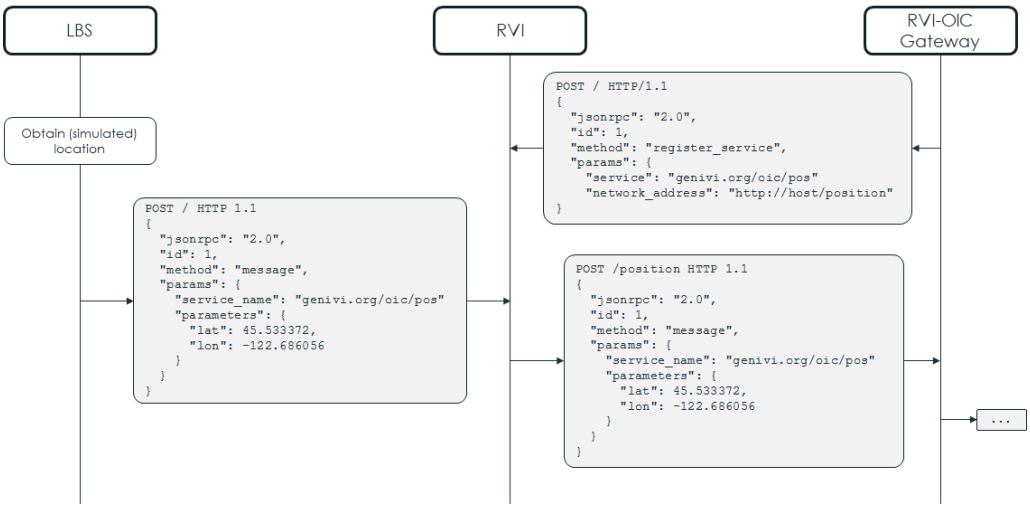
Assumptions

1. All devices are connected to the same Wi-Fi Access Point
2. GHU speaks to GW in P2P mode
3. No external cloud service interaction is necessary
4. Smartphones will sometimes behave as OCF client/server based on scenario
5. IoTivity and OCF are used interchangeably, based on the context – but mean the same thing
6. ‘iotivity’ will be used in implementation detail.
7. ‘OCF’ will be used while explaining concept.

#1 : Car Location Notification & Update

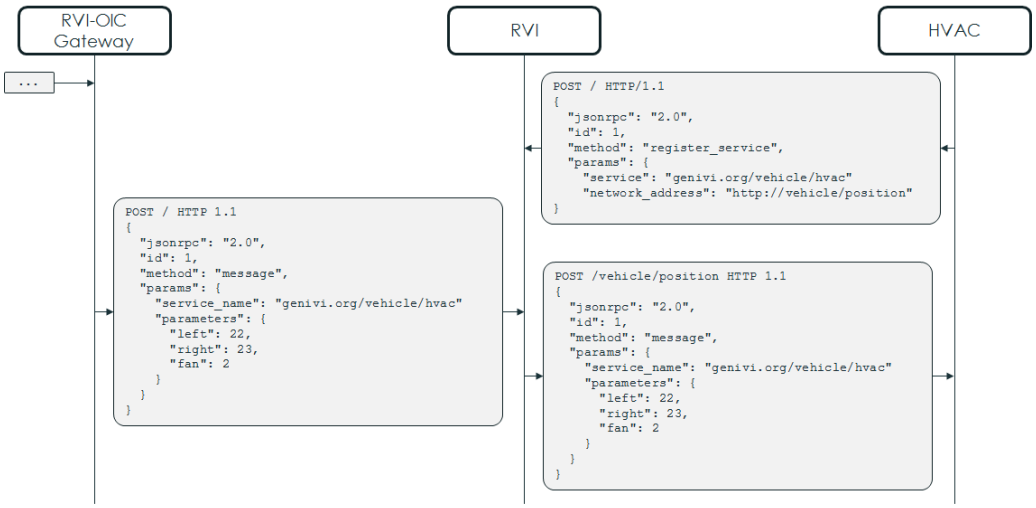
1. Car shares its GPS coordinates to the OCF g/w via RVI.
2. G/W sends location update to OCF Rule Engine (rule engine throttles location updates)
3. OIC Rule Engine checks the configured rule and does OCF ‘POST’ to
    a. Z1 OCF resource - Z1 shows map with location of the car.
    b. TV OCF resource – TV shows a notification.
    c. S2 OCF resource – S2 shows a notification.
4. Repeat 1-3 by sending different GPS coordinates from the car.

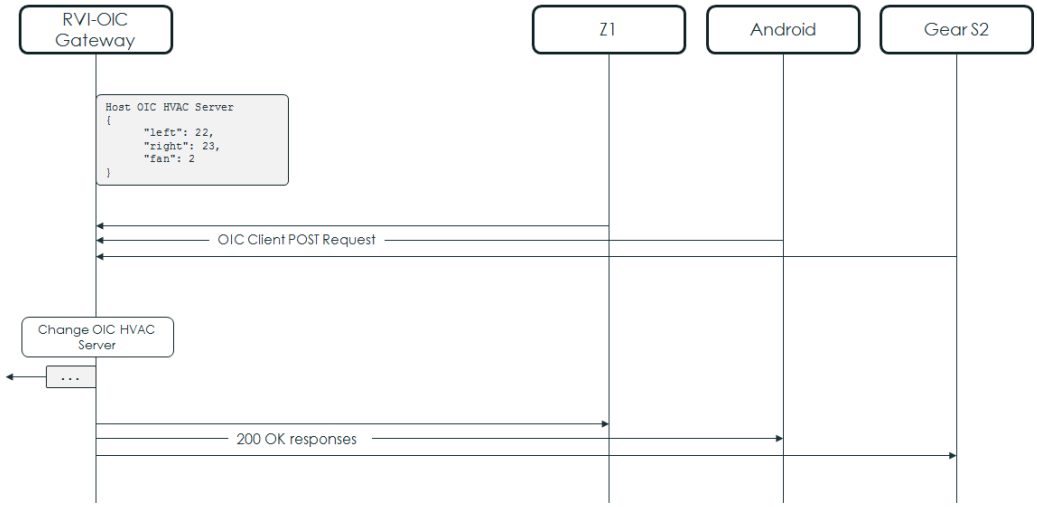




#2 : HVAC Control from OCF Device

1. OIC device presents a UI for HVAC Control
2. User select a HVAC Control and Value, using the UI, to the G/W hosted OCF HVAC resources
3. G/W sends RVI commands to the GHU.
4. GHU takes the appropriate HVAC actions.
    a. TV observes G/W hosted OCF resources – notifications are posted
    b. S5 observes G/W hosted OCF resources – notifications are posted
    c. S2 observes G/W hosted OCF resources – UI updated



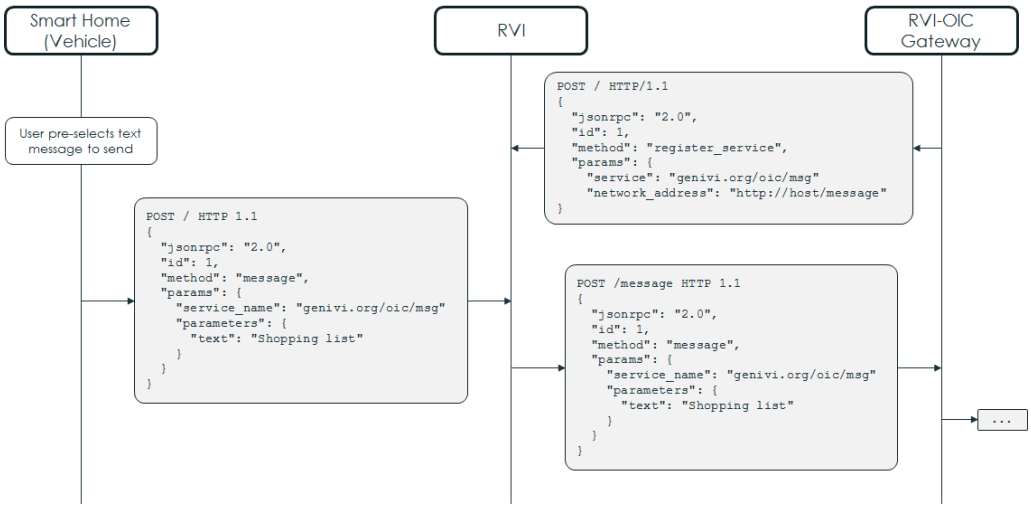


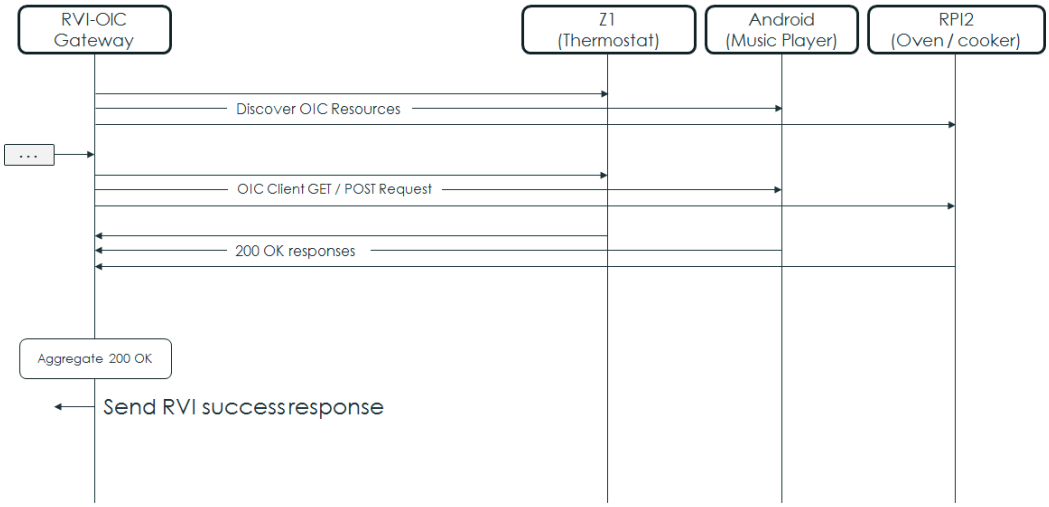
#3 a : “Coming Home” Scenario

1. Vehicle sends a pre-configured “text” string to the OCF g/w via RVI. (ex: “Coming Home”)
2. G/W sends the string to OCF Rule Engine
3. OIC Rule Engine checks the configured rule and does OCF ‘POST’ to
    a. Z1 OCF resource - Z1 thermostat mimics setting home temperature.
    b. VC starts a scheduled cleanup (optional)
    c. AC starts to set the ideal air circulation (optional)
    d. Humidifier(simulated) is started
    e. Music player starts playing music (Can be done in Android Device)
    f. Electric Cooker starts heating food (simulated)

#3 b : “Smarthome Device Status” Scenario

1. Vehicle sends a pre-configured “text” string to the OCF g/w via RVI. (ex: “SmartHome Device Status”)
2. G/W sends the string to OCF Rule Engine
3. OCF Rule Engine checks the configured rule and does OCF ‘GET’ to
    a. S5 OCF resource – S5 mimics a fridge and sends missing grocery list.
    b. VC reports air filter status(optional / simulated)
    c. Other resources could be simulated as well (needs discussion).





Sample proof of concept on GDP