Basic Flow

Device

T Remote Eye Broker

8.Response the Result

7.RPC Request

6.Publish Ack

5.Publish Message

4. Subscription Ack

3.Subscribe the Topic for RPC

2. connection Ack

1.Request Connection

1.Request Connection

1. Authentication

- Predefined after provisioned user id   
ex) gKoCfu9KBbdNRPBRIV1u

- No Password   
ex) gKoCfu9KBbdNRPBRIV1u

- Client ID – Device Serial Number

2.Connection Ack

1. Authentication Success

2. Authentication Fail

3.Subscription For RPC

*1. Subscriotion Success*

2. Subscriotion Fail

4. Special Sequence

1. Trip and TDR Sequence

T Remote Eye Broker

Device

Confirm Trip

Publish Trip

Ignition Off

Publish TDR

Ignition ON

Publish TDR

2. GPS and Network Hello

T Remote Eye Broker

Device

Network Activation

GPS Hello

GPS Locked and Ignition On

Network Hello

2. Firmware update and Car DB Update

GPS Locked and Ignition On

Send Update Info

Firmware Request/Car DB Request

FW/ Car DB Check

T Remote Eye Broker

Device

5.Publish Information

1. DriveSec. aka TDR(Tracked Driving Record)

|  |  |
| --- | --- |
| Description | Send the Sensor Information To Broker on realtime. |
| Token | v1/devices/me/telemetry |
| Method | publish |
| Sample Publish | |
| Body | {"type": 1, "payload": {"distance": 1043, "bVolt": 1, "yaw\_rot": 0, "course": 10, "engTemp": 99, "engload": 10, "lon": 12688242, "fuelS": 100, "ts": 1501746441, "gVal": 1, "acc\_xy": 0, "fc": 61, "tps": 10, "lat": 3755148, "encoded": 0, "tid": 37, "rpm": 883, "speed": 10, "s\_mark": 0}, "ts": 1501746441} |

2. Trip

|  |  |
| --- | --- |
| Description | Send the Summarized Information To Broker after ignition off |
| Token | v1/devices/me/telemetry |
| Method | publish |
| Sample Publish | |
| Body | {"type": 2, "payload": {"sudden\_mark\_decel": 0, "co2PerKm": 0, "t\_lon": 12688915, "dtcType": "e", "max\_accel": 0.939372713, "ecoTime": 0, "t\_lat": 3754732, "iTime": 0, "max\_rot": 0.479425539, "engTempMax": 0, "etime": 1501115390, "max\_decel": 0, "accelTime": 0, "tpsMax": 10, "co2Mass": 0, "tid": 37, "dtcCode": "P0101", "rTime": 0, "oSpeedTime": 0, "warmTime": 0, "h\_lon": 12688242, "avgSpeed": 146.0, "h\_lat": 3755148, "fcEffi": 0, "fcMass": 27.083333333333332, "stime": 1501115378, "sudden\_mark\_rot": 0, "distance": 0, "maxSpeed": 63, "sudden\_mark\_accel": 0, "fCutTime": 0}, "ts": 1501746453} |

3. GPSHello

|  |  |
| --- | --- |
| Description | Send the GPS and Time information To Broker on GPS Locked State |
| Token | v1/devices/me/telemetry |
| Method | publish |
| Sample Publish | |
| Body | {"type": 4, "payload": {"lat": 3754839, "lon": 12710136, "time\_zone\_shift": 540}, "ts": 1501746501} |

3. Network Hello

|  |  |
| --- | --- |
| Description | Send the Device information To Broker after Igntiion on and Network Activation |
| Token | v1/devices/me/telemetry |
| Method | publish |
| Sample Publish | |
| Body | {"type": 5, "payload": {"cardb\_name": "CombinedFileEncrypt 10001 PERMANENT DTC", "network\_id": "A000001", "complied\_version": "2017/01/06", "lon": 0, "fw\_version": "vonsimul-01.01", "time\_zone\_shift": 0, "lat": 0, "obd2\_supported\_result": "FF01FF01"}, "ts": 1501746532} |

4. Firmware Request

|  |  |
| --- | --- |
| Description | Send the Firmware chunk Request if the device need Firmware Update or received Send Update Info |
| Token | v1/devices/me/telemetry |
| Method | publish |
| Sample Publish | |
| Body | {"type": 6, "payload": {"cardb\_name": "CombinedFileEncrypt 10001 PERMANENT DTC", "network\_id": "A000001", "complied\_version": "2017/01/06", "lon": 0, "fw\_version": "vonsimul-01.01", "time\_zone\_shift": 0, "lat": 0, "obd2\_supported\_result": "FF01FF01", "device\_id": "A000001"}, "ts": 1501746579} |

5. Car DB Request

|  |  |
| --- | --- |
| Description | Send the Car DB chunk Request if the device need Car DB Update or received Send Update Info |
| Token | v1/devices/me/telemetry |
| Method | publish |
| Sample Publish | |
| Body | {"type": 7, "payload": {"network\_id": "A000001", "obd2\_supported\_result": "FF01FF01", "cardb\_name": "CombinedFileEncrypt 10001 PERMANENT DTC", "device\_id": "A000001"}, "ts": 1501746628} |

6.RPC Information

1.Reset

|  |  |
| --- | --- |
| Description | Receive the RPC Request on Device Reset from Server and Response the Result to Server |
| Method | Request/Response |
| Sample Request | |
| Request Token | v1/devices/me/rpc/request/{Requet\_id} |
| Body | {"method":"reset","params":{"Immediate":"true"}} |
| Sample Response | |
| Response Token | v1/devices/me/rpc/response/{Requet\_id} |
| Body | {"additionalInfo": {}, "results": "0"} |

2. Beep

|  |  |
| --- | --- |
| Description | Receive the RPC Request on Device Beep Sound from Server and Response the Result to Server. |
| Method | Request/Response |
| Sample Request | |
| Request Token | v1/devices/me/rpc/request/{Requet\_id} |
| Body | {"method":"beep"} |
| Sample Response | |
| Response Token | v1/devices/me/rpc/response/{Requet\_id} |
| Body | {"additionalInfo": {}, "results": "0"} |

3. Device Serial

|  |  |
| --- | --- |
| Description | Receive the RPC Request on Device Serial Number from Server and Response the Result to Server. |
| Method | Request/Response |
| Sample Request | |
| Request Token | v1/devices/me/rpc/request/{Requet\_id} |
| Body | {"method":"serial","params":{}} |
| Sample Response | |
| Response Token | v1/devices/me/rpc/response/{Requet\_id} |
| Body | {"additionalInfo": {"serial": "A00001"}, "results": "0"} |

4. Get TDR

|  |  |
| --- | --- |
| Description | Receive the RPC Request on Last offseted Stored TDR from Server and Response the Result to Server |
| Method | Request/Response |
| Sample Request | |
| Request Token | v1/devices/me/rpc/request/{Requet\_id} |
| Body | {"method":"gettdr","params":{"lastoffset":"-1"}} |
| Sample Response | |
| Response Token | v1/devices/me/rpc/response/{Requet\_id} |
| Body | {"additionalInfo": {"tdr": {"distance": 0, "bVolt": 0, "yaw\_rot": 0, "course": 0, "engTemp": 0, "engload": 0, "lon": 0, "fuelS": 0, "ts": 0, "gVal": 0, "acc\_xy": 0, "fc": 0, "tps": 0, "lat": 0, "encoded": 0, "tid": 0, "rpm": 0, "speed": 0, "s\_mark": 0}}, "results": "0"} |

5. Get Trip

|  |  |
| --- | --- |
| Description | Receive the RPC Request on Last offseted Stored Trip from Server and Response the Result to Server |
| Method | Request/Response |
| Sample Request | |
| Request Token | v1/devices/me/rpc/request/{Requet\_id} |
| Body | {"method":"gettrip","params":{"lastoffset":"-1"}} |
| Sample Response | |
| Response Token | v1/devices/me/rpc/response/{Requet\_id} |
| Body | {"additionalInfo": {"trip": {"sudden\_mark\_decel": 0, "co2PerKm": 0, "t\_lon": 0, "dtcType": 0, "max\_accel": 0, "ecoTime": 0, "t\_lat": 0, "iTime": 0, "max\_rot": 0, "engTempMax": 0, "etime": 0, "max\_decel": 0, "accelTime": 0, "tpsMax": 0, "co2Mass": 0, "tid": 0, "dtcCode": 0, "rTime": 0, "oSpeedTime": 0, "warmTime": 0, "h\_lon": 0, "avgSpeed": 0, "h\_lat": 0, "fcEffi": 0, "fcMass": 0, "stime": 0, "sudden\_mark\_rot": 0, "distance": 0, "maxSpeed": 0, "sudden\_mark\_accel": 0, "fCutTime": 0}}, "results": "0"} |

6. Radio Usage

|  |  |
| --- | --- |
| Description | Receive the RPC Request on Radio Usage Statistics from Server and Response the Result to Server |
| Method | Request/Response |
| Sample Request | |
| Request Token | v1/devices/me/rpc/request/{Requet\_id} |
| Body | {"method":"getrusage","params":{"from":"2016-07-31","to":"2017-07-31"}} |
| Sample Response | |
| Response Token | v1/devices/me/rpc/response/{Requet\_id} |
| Body | {"additionalInfo": {"rusage": {"receved": 0, "stime": 0, "sent": 0, "etime": 0}}, "results": "0"} |

7. Stop Push

|  |  |
| --- | --- |
| Description | Receive the RPC Request to stop MQTT Message from Server and Response the Result to Serve |
| Method | Request/Response |
| Sample Request | |
| Request Token | v1/devices/me/rpc/request/{Requet\_id} |
| Body | {"method":"stoppush"} |
| Sample Response | |
| Response Token | v1/devices/me/rpc/response/{Requet\_id} |
| Body | {"additionalInfo": "", "results": "0"} |

8. Send Firmware chunk

|  |  |
| --- | --- |
| Description | Receive the Firwmare Chunk from Server and Response the Result to Server |
| Method | Request/Response |
| Sample Request | |
| Request Token | v1/devices/me/rpc/request/{Requet\_id} |
| Body | {"method":"sendfwchunk","params":{"total\_size":512348,"chunk\_size":128,"chunk\_index":1,"payload":"MFIXX23"}} |
| Sample Response | |
| Response Token | v1/devices/me/rpc/response/{Requet\_id} |
| Body | {"additionalInfo": {}, "results": "0"} |

9. Send Car DB Chunk

|  |  |
| --- | --- |
| Description | Receive the RPC Request on Device Beep Sound from Server and Response the Result to Server. |
| Method | Request/Response |
| Sample Request | |
| Request Token | v1/devices/me/rpc/request/{Requet\_id} |
| Body | {"method":"sendcardbchunk","params":{"total\_size":512348,"chunk\_size":128,"chunk\_index":1,"payload":"MFIXX23"}}  {"additionalInfo": "", "results": "0"} |
| Sample Response | |
| Response Token | v1/devices/me/rpc/response/{Requet\_id} |
| Body | {"additionalInfo": {}, "results": "0"} |

10. Get Security Level

|  |  |
| --- | --- |
| Description | Receive the RPC Request on Device Beep Sound from Server and Response the Result to Server. |
| Method | Request/Response |
| Sample Request | |
| Request Token | v1/devices/me/rpc/request/{Requet\_id} |
| Body | {"method":"getSecuritylevel"} |
| Sample Response | |
| Response Token | v1/devices/me/rpc/response/{Requet\_id} |
| Body | {"additionalInfo": {}, "results": "0"} |

11. Set Security Level

|  |  |
| --- | --- |
| Description | Receive the RPC Request on Device Beep Sound from Server and Response the Result to Server. |
| Method | Request/Response |
| Sample Request | |
| Request Token | v1/devices/me/rpc/request/{Requet\_id} |
| Body | {"method":"setSecuritylevel","params":{"level":"1"}} {"additionalInfo": "", "results": "0"} |
| Sample Response | |
| Response Token | v1/devices/me/rpc/response/{Requet\_id} |
| Body | {"additionalInfo": {}, "results": "0"} |

12. Clear All Data

|  |  |
| --- | --- |
| Description | Receive the RPC Request to clear trip data and TDR data from Server and Response the Result to Server |
| Method | Request/Response |
| Sample Request | |
| Request Token | v1/devices/me/rpc/request/{Requet\_id} |
| Body | {"method":"clearAllData"} |
| Sample Response | |
| Response Token | v1/devices/me/rpc/response/{Requet\_id} |
| Body | {"additionalInfo": "", "results": "0"} |

13. Get GPS Key

|  |  |
| --- | --- |
| Description | Receive the RPC Request on GPS Key (AES128bit) from Server and Response the Result to Server |
| Method | Request/Response |
| Sample Request | |
| Request Token | v1/devices/me/rpc/request/{Requet\_id} |
| Body | {"method":"getGPSKey"} |
| Sample Response | |
| Response Token | v1/devices/me/rpc/response/{Requet\_id} |
| Body | {"additionalInfo": {"gpskey": "AXSDM4354545DFDFDFDFDFDFDF"}, "results": "0"} |

14. Send Update Info

|  |  |
| --- | --- |
| Description | Receive the RPC Request on necessity of update(FW,Car DB) from Server and Response the Result to Server |
| Method | Request/Response |
| Sample Request | |
| Request Token | v1/devices/me/rpc/request/{Requet\_id} |
| Body | {"method":"sendUpdateInfo","params":{"type":"fw"} |
| Sample Response | |
| Response Token | v1/devices/me/rpc/response/{Requet\_id} |
| Body | {"additionalInfo": "", "results": "0"} |

15. Get Device Info

|  |  |
| --- | --- |
| Description | Receive the RPC Request on Device Info from Server and Response the Result to Server |
| Method | Request/Response |
| Sample Request | |
| Request Token | v1/devices/me/rpc/request/{Requet\_id} |
| Body | {"method":"reset","params":{"Immediate":"true"}} |
| Sample Response | |
| Response Token | v1/devices/me/rpc/response/{Requet\_id} |
| Body | {"additionalInfo": {"device": {"network\_id": 0, "complied\_version": 0, "cardb\_name": 0, "fw\_version": 0, "obd2\_supported\_result": 0}}, "results": "0"} |

16.Get Vehicle info

|  |  |
| --- | --- |
| Description | Receive the RPC Request on Stored Vehicle Info from Server and Response the Result to Server |
| Method | Request/Response |
| Sample Request | |
| Request Token | v1/devices/me/rpc/request/{Requet\_id} |
| Body | {"method":"getVinfo"} |
| Sample Response | |
| Response Token | v1/devices/me/rpc/response/{Requet\_id} |
| Body | {"additionalInfo": {"vinfo": {"cylNo": 0, "vol": 0, "vin": "", "hybrid": 0, "fuel": 0, "modelcode": 0}}, "results": "0"} |