**MQTT:**

**Sending alerts/states:**

Format of alarms/source:

{

“System Info” : {

“Unique ID”: 0x3428752354236787

“Time stamp”: in UTC

},

"source": {

"sourceIdentification": 1,

"startTime": "02:41:30",

"endTime": "02:41:30"

},

"alarms": {

"frequency": 0,

"overload": 0,

"phaseLoss": 0,

"fuelTampering": 0

}

}

**Sending of Data:**

Format of Data:

Interval can be set according to server. Minimum 1second

{

“System Info”: {

“Unique ID”: 0x3428752354236787

“Time stamp”: in UTC

},

"sourceRelatedProperties": {

"V1": 230.5,

"V2": 229.8,

"V3": 231.0,

"I1": 10.2,

"I2": 9.8,

"I3": 11.1,

"P1": 2.3,

"P2": 2.2,

"P3": 2.5,

"energy": 150.75,

"frequency": 50.0

},

"source": {

"sourceIdentification": 2,

"startTime": "02:41:30",

"endTime": "03:00:00"

},

"alarms": {

"frequency": 0,

"overload": 1,

"phaseLoss": 0,

"fuelTampering": 1

},

"fuel": {

"fuelLevel": 75,

"fuelConsumption": 60,

"refuelingStartTime": "02:00:00",

"refuelingEndTime": "02:30:00"

},

"battery": {

"batteryLevel": 85,

"batteryChargeStartTime": "01:00:00",

"batteryChargeEndTime": "02:00:00"

},

"IDs": {

"fuelTankID": 123456789,

"generatorID": 987654321,

"batteryID": 192837465

},

"temperatureAndHumidity": {

"temperature": 25.5,

"humidity": 60.2

}

}

**Commands:**

Important: For reception the broker should have ability to retain commands on its side.

Server establishes the link first by sending commands.

Set commands:

setFuelTankID: 500

Reply: ACK/NACK

setGeneratorID: 200

Reply: ACK/NACK

setBatteryID: 100

Reply: ACK/NACK

setTimedate: (In UTC)

Reply: ACK/NACK

setDataInterval: (Value will be in seconds)

Reply: ACK/NACK

Get commands:

getFuelTankID

Reply: FuelTankID: 500

getGeneratorID

Reply: GeneratorID: 200

getBatteryID

Reply: BatteryID: 100

getTimedate

Reply: Timedate: UTC

getDataInterval

Reply: DataInterval: (Value will be in seconds)