TAG N GO

Delivering hardware at the edge.

RMS Hardware Specifications for Telco

Suppliers of market-leading **hardware solutions**, we have developed and partnered with an award winning hardware platform.

Our solutions are designed for situations where speed, quality and efficiencies matter.
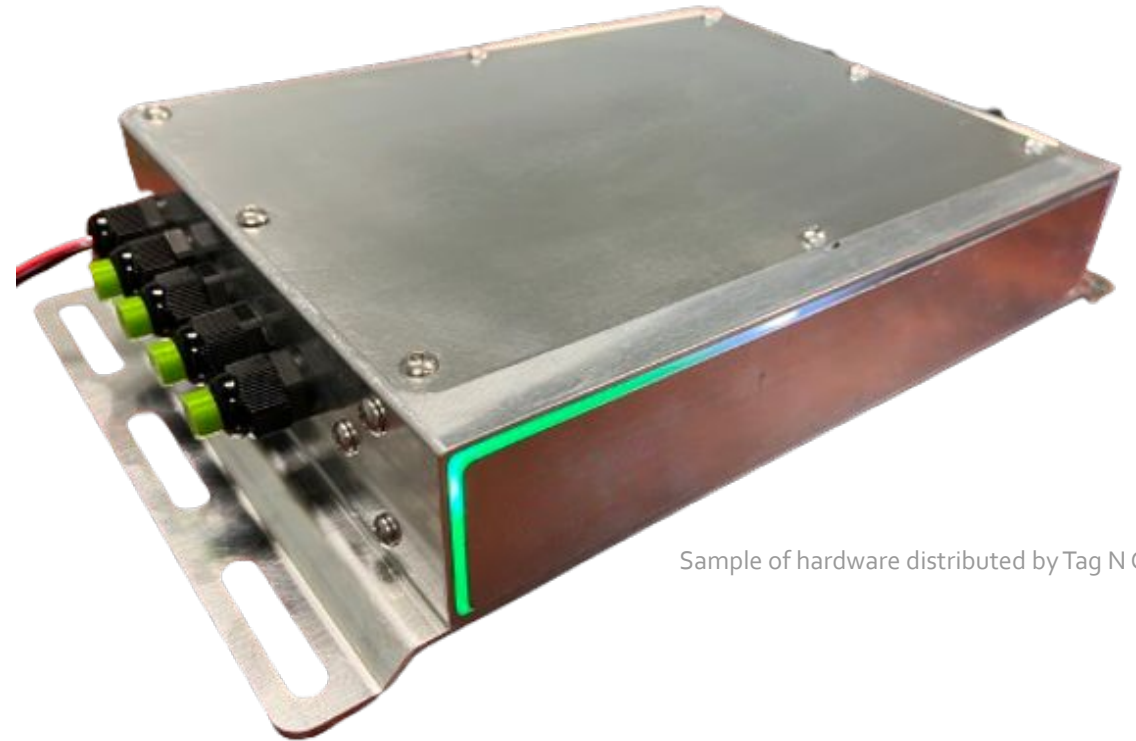
Sample of hardware distributed by Tag N Go.

An innovative RMS solution with an on-site Virtual Technician.

Discover operational issues and make changes to the required parts of your system without any human intervention.

Sample of hardware distributed by Tag N Go.

TAG N GO Established in 2012

Tag N Go allows for dynamic control of Power Assets through Smart Algorithms

Smart Hybrid control

Expected direct savings: $230k per 100 sites per year

Smart Autonomous Recovery

Expected direct savings: $51.5k per 100 sites per year

Dynamic Power Balancing

68% reduction in site downtime due to generator failure

PROBLEM

SOLUTION

PHASE 1

Due to crude or basic hybrid controls for the energy mix on site, voltage parameters are typically used for determining prioritisation of energy source to be used which results in energy and cost inefficiencies. This results in greater diesel usage and potential for shorter asset life.

Through the smart hybrid control algorithms, the sophistication of the prioritisation matrix of the energy source leads to greater efficiency of power production, leading to lower diesel usage and asset life longevity.

PHASE 2

Often, field technicians, to minimise site downtime, circumvent standard recommended operating procedures while restoring power at sites, resulting in significant damage to other equipment, particularly to battery storage.

Due to ageing, lack of maintenance, battery charge current limiting response time and higher installed rectifier capacity than diesel generator capacity, diesel generators overload on start-up unable to sustain or provide the power demand

Automated recovery process programmed within the IQM, following standard operating procedures, to allow for shortest possible restoration time, minimizing downtime without damage to equipment.
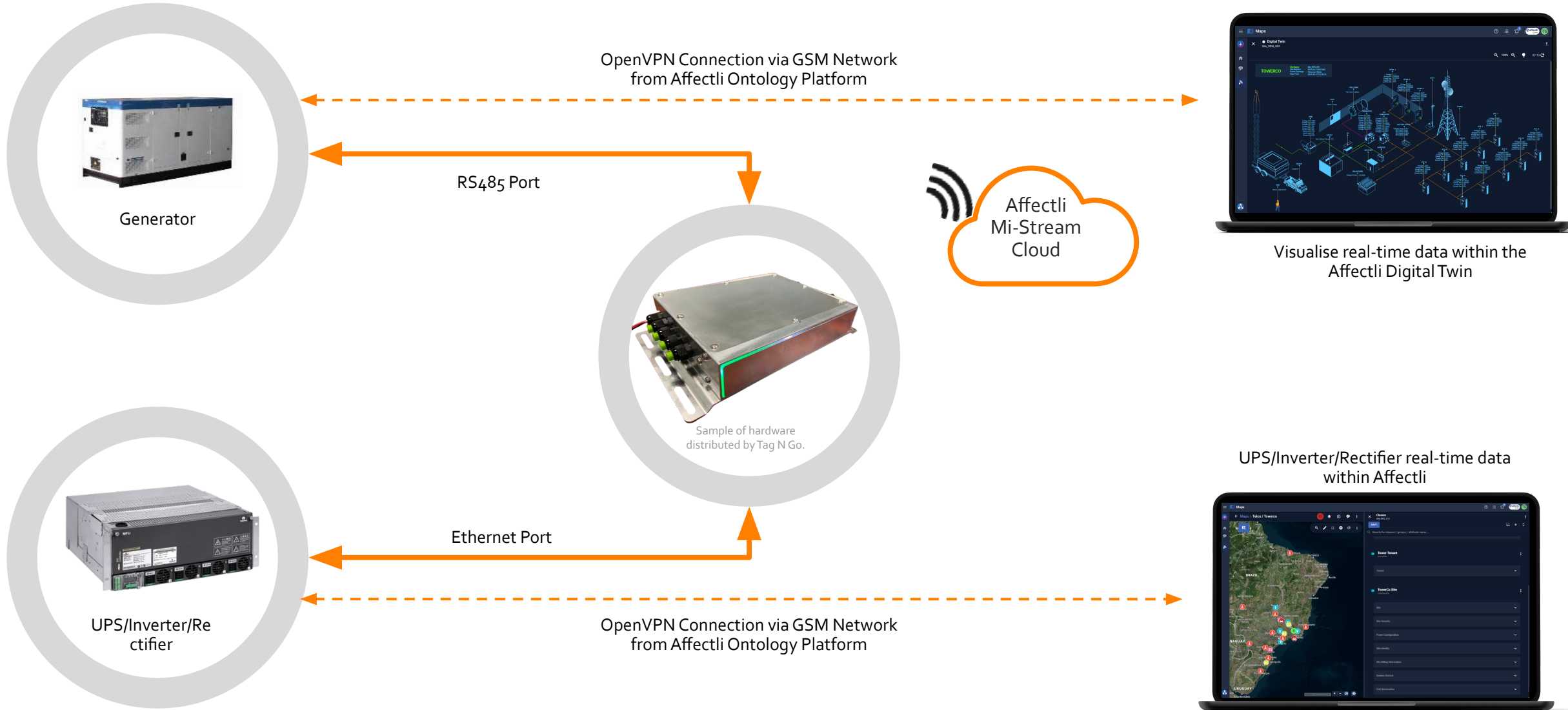
Diesel generator vitals monitoring and trending, by IQM controller software, anticipates potential reduction in power production capacity of diesel generator and makes micro adjustments to rectifier, inverter and battery BMS (in case of Li-ION batteries) settings thus preventing engine stalling and downtime.

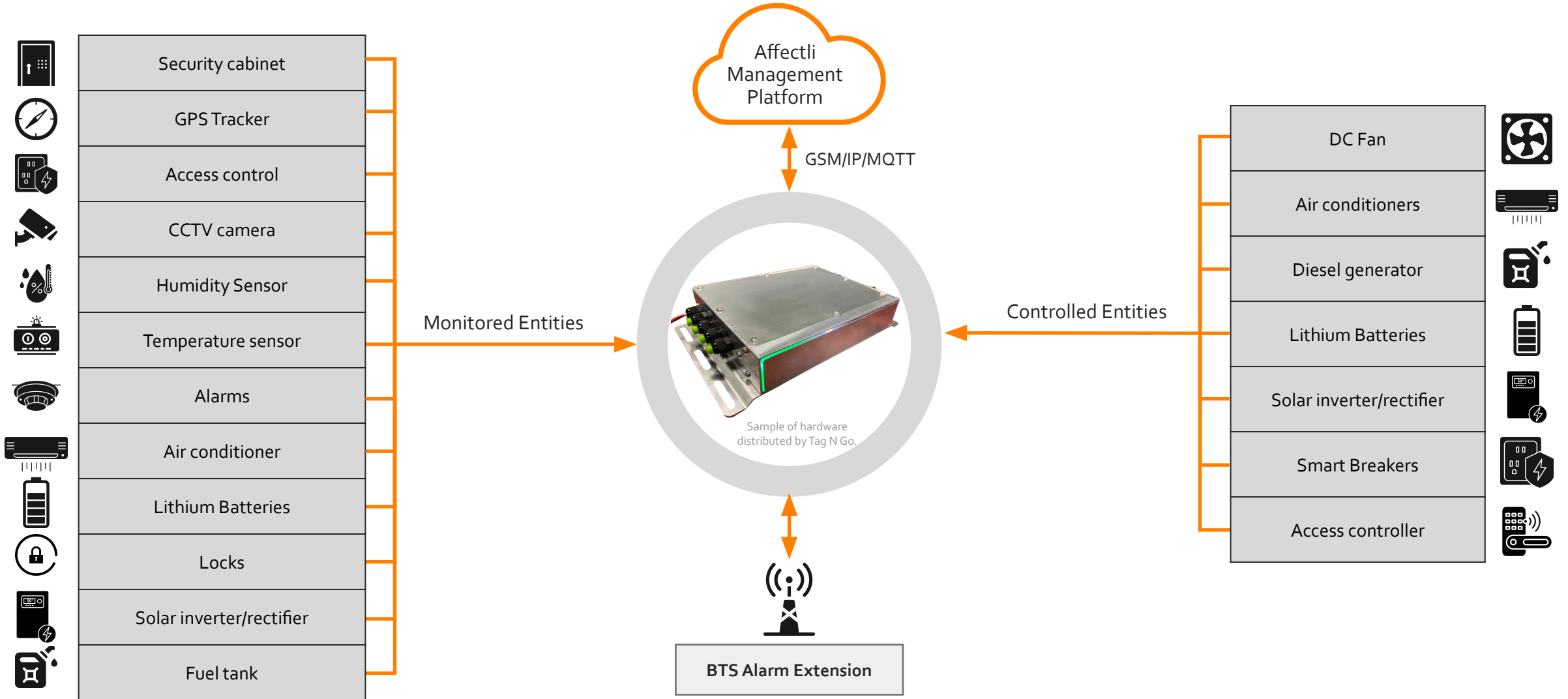# Supported 3rd Party Intelligent Controllers & Peripherals

... and many more currently in progress

Established in 2012

Pass-through or Cut-through Operation

OpenVPN Connection via GSM Network
from Affectli Ontology Platform

Generator

RS485 Port

Affectli
Mi-Stream
Cloud

Sample of hardware
distributed by Tag N Go.

Visualise real-time data within the
Affectli Digital Twin

UPS/Inverter/Rectifier real-time data
within Affectli

Ethernet Port

UPS/Inverter/Re
ctifier

OpenVPN Connection via GSM Network
from Affectli Ontology Platform

Application
Equipment Remote Monitoring & Control for Residential, Commercial & Industrial and Telecommunications

Affectli Management Platform

GSM/IP/MQTT

Monitored Entities

- Security cabinet
- GPS Tracker
- Access control
- CCTV camera
- Humidity Sensor
- Temperature sensor
- Alarms
- Air conditioner
- Lithium Batteries
- Locks
- Solar inverter/rectifier
- Fuel tank

Sample of hardware distributed by Tag N Go.

Controlled Entities

- DC Fan
- Air conditioners
- Diesel generator
- Lithium Batteries
- Solar inverter/rectifier
- Smart Breakers
- Access controller

BTS Alarm Extension

Specifications: Node

Processor Module:
ARM® Cortex with embedded Linux
Data storage MicroSD Card Slot 8 to 32GB
RTC – SupaCap 48 Hour backup time

Communication Protocols:
Modbus Compliant on RS485 and Ethernet ports
CANBUS IDs (Messages)
SNMP on Ethernet port
Northbound TCP/IP with MQTT

Communication Ports:
Ethernet – 1x 10/100 Mbit/s port
RS485 – 2x ports
RS485 (isolated) – 1x port
CANBUS – 2x ports
1-Wire port – Supports Humidity and Temperature sensors
USB – 1x Device port & 1x Host port
Wi-Fi & Bluetooth optional

Expansion Headers:
Plugin modules supporting various functions

General Purpose IO:
8x – Digital Inputs
4x – Digital Outputs (Open-Drain MOSFET)
1x – Relay

GSM Modem:
Optional 3G or LTE GSM Modem Plugin module

Power Supply:
Nominal 12, 24 & 48Vdc Range 9 - 60Vdc 30W Maximum
Output: 12Vdc 200mA max on RS485 & RS232 port connectors

Temperature & Humidity:
Operating Range -5 to +55°C
Storage Range -20 to +80°C
Humidity 95% Non-condensing

Dimensions:
245 x 125 x 38mm with mounting flanges
205 x 125 x 38mm without mounting flanges

Certification:
Safety: IEC 62368-1:2018 / SANS 62368-1
EMC Emissions: SANS 232/CISPR 32 - Radiated & Conducted Emissions
EMC Immunity: SANS/IEC 61000-4-2 Criterion B, SANS/IEC 61000-4-3/4/5/6 Criterion A

Enclosure:
Metal – Suitable for indoor applications, not weatherproof
Optional Metal outdoor enclosure available
Optional Indoor 19" Rack-mount shelf available
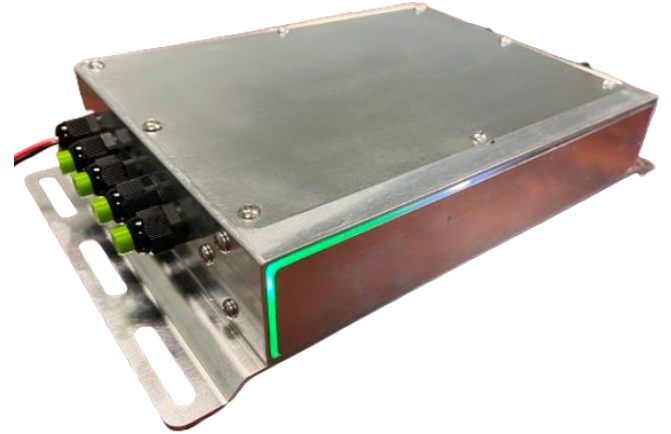
Sample of hardware distributed by Tag N Go.

Specifications: Nano

Processor Module:
ARM® Cortex embedded with Linux
Data storage MicroSD Card Slot 8 to 64GB
RTC – SupaCap 100hrs backup time

Communication Protocols:
Modbus Compliant on RS485 and Ethernet ports
CANBUS IDs (Messages)
SNMP on Ethernet port
Northbound Communication TCP/IP with MQTT

Communication Ports:
Ethernet – 1x 10/100 Mbit/s port
RS485 – 1x port
CANBUS – 1x port
USB – 1x port
OPTIONAL - Bluetooth Low Energy (BLE) v5.0 and b/g/n WiFi

Expansion Headers:
Plugin modules supporting various functions

GSM Modem:
Optional 3G/LTE/5G GSM Modem Plugin module

Power Supply:
Nominal 12, 24 & 48Vdc Range 9 -
60Vdc 20W Maximum
Output: 12Vdc 200mA max on RS485
port connector

Temperature & Humidity:
Operating Range -5 to +55°C
Storage Range -20 to +80°C
Humidity 95% Non-condensing

Dimensions:
165 x 125 x 38mm with mounting flanges
140 x 125 x 38mm without mounting flanges

Certification:
Safety: IEC 62368-1:2018 / SANS 62368-1
EMC Emissions: SANS 232/CISPR 32 - Radiated & Conducted Emissions
EMC Immunity: SANS/IEC 61000-4-2 Criterion B, SANS/IEC 61000-4-3/4/5/6 Criterion A
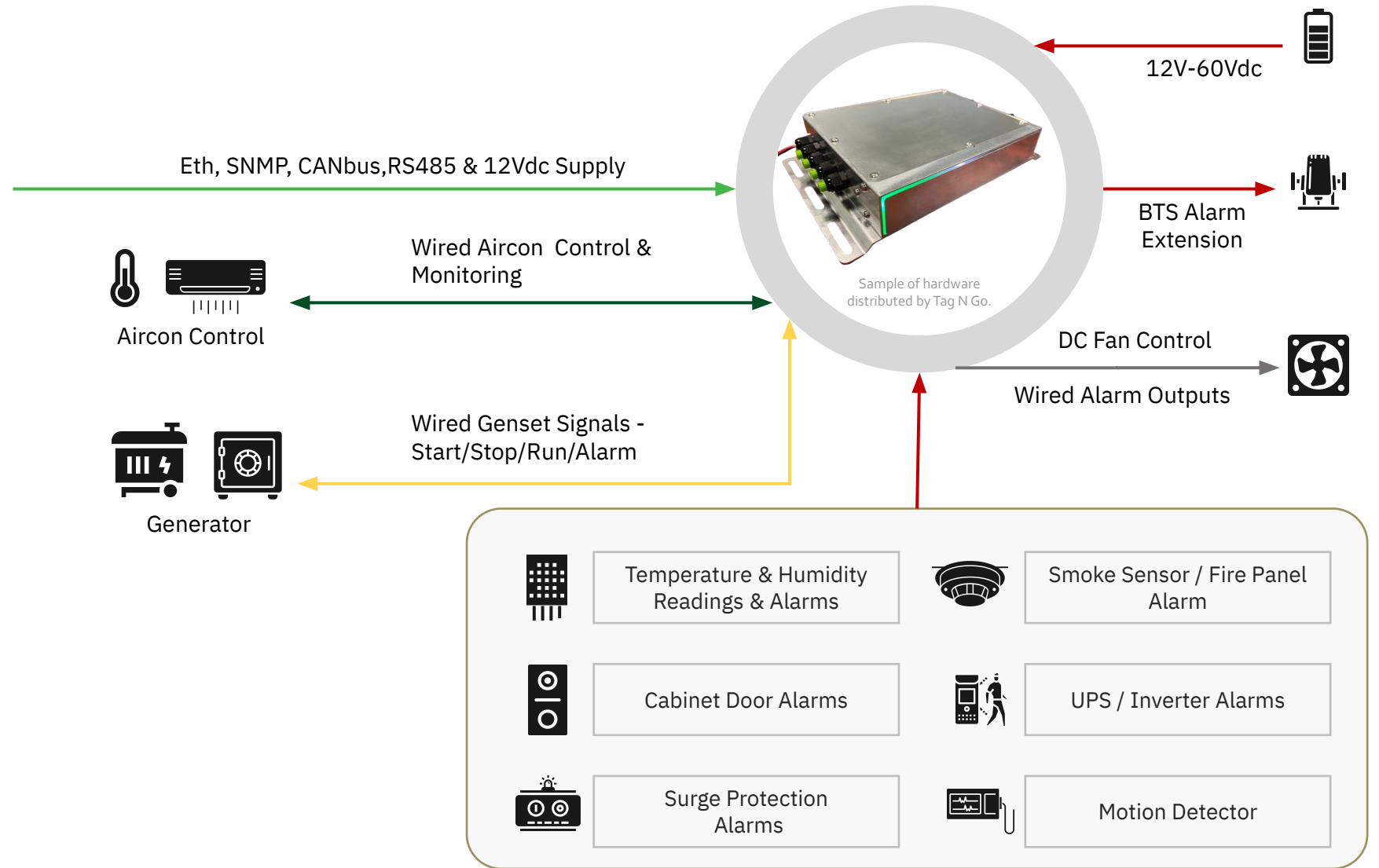
Enclosure:
Metal – Suitable for indoor applications, not weatherproof
Optional Weatherproof outdoor enclosure available
Optional Indoor 19" Rack-mount shelf available

Wired Peripherals & Sensors for Typical Telecom Application

Power Conversion Systems

Site Battery DPP Voltage & Current

Solar Power DPP
Current & Energy

Tenant DC Load
DPP Current & Energy

Lithium Ion
Batteries BMS

AC Supply/Load Voltage & Current
Power & Energy

IP Camera

Gate/Door Access Control

Diesel Tank Fuel Level Sensor

12V-60Vdc

Eth, SNMP, CANbus,RS485 & 12Vdc Supply

BTS Alarm
Extension

Wired Aircon Control &
Monitoring

Aircon Control

Sample of hardware
distributed by Tag N Go.

DC Fan Control

Wired Alarm Outputs

Wired Genset Signals -
Start/Stop/Run/Alarm

Generator

Temperature & Humidity
Readings & Alarms

Smoke Sensor / Fire Panel
Alarm

Cabinet Door Alarms

UPS / Inverter Alarms

Surge Protection
Alarms

Motion Detector

Contact Us

Email

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