ARTEMIS
GATEWAY
Proactive Management of Utilities

WINGS has developed ARTEMIS, a solution designed to significantly enhance the management of utility networks. ARTEMIS offers added-value services for the utilities (and for the benefit of the consumers) leveraging the capabilities offered by Internet of Things and Artificial Intelligence.

In particular, ARTEMIS exploits:

- Commercial and R&D based sensors
- Standardized communication technologies
- Analytics and Artificial Intelligence
- Visualization and customizable dashboards

INTELLIGENT GATEWAY

ARTEMIS is based on the secure, reliable and trustworthy exchange of information between sensors/devices and its cloud platform. Therefore, ARTEMIS includes an intelligent gateway that lies at the edge and is suitable for retrieving measurements from sensors and transmitting them to the cloud, while waiting for corresponding responses from the cloud.

Capabilities of the Gateway

- Retrieves data from sensors and devices (various interfaces supported such as pulse output, wired/wireless MBus, etc.) and transmits over any available network (GPRS / 4G / 5G / NBIoT / Cat-M / LoRa / WiFi)
- Edge Computing capabilities, identifying alerts at local level and adapting measurement and transmission profiles accordingly (e.g. more frequent measurements /transmissions in case of alert)
- Supports over the air parameterization of its operation, e.g. adapting measurement and transmission profiles to the user preferences
- Gateway management functionalities (e.g. reset, configuration, firmware updates)
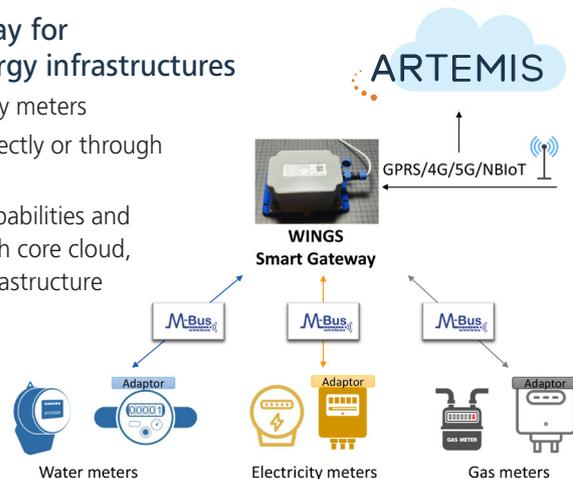- Alerts for sensor / gateway violation

Benefits of the Gateway

- Connection with more than one sensors/devices simultaneously: cost efficiency, manageability
- Modular: one module for any type of sensor/device with lifetime beyond the life expectancy of the sensor
- Connection with existing sensors/devices
- Installation in secure areas (buildings, poles, etc) for protection

ARTEMIS Artificial Intelligence

ARTEMIS AI is the optimal solution for utility network management, "content" management, configuration, faults, metering/analytics, predictions of consumption, performance, security, asset management, energy theft, root cause analysis.

Intelligent gateway for Water / Gas / Energy infrastructures

- Water / Gas / Energy meters
- Communicating directly or through adaptor
- Diverse network capabilities and communication with core cloud, big data and AI infrastructure
- Benefits: efficiency, economy of scale, controllability, extensibility, scalability

ARTEMIS

GPRS/4G/5G/NBIoT

WINGS Smart Gateway

M-Bus | M-Bus | M-Bus

Adaptor | Adaptor | Adaptor

Water meters | Electricity meters | Gas meters

WINGS
ICT SOLUTIONS

TECHNICAL SPECIFICATION

(Sensor) Reading interface
<u>Wired</u>: Pulse, Digital Inputs, M-Bus, RS232, RS485, Analog inputs, SPI, I2C, Profinet, Ethernet
<u>Wireless</u>: wM-Bus, LoRa, RFID, Bluetooth

Transmission technologies supported
GPRS, 4G, 5G, NBIoT, Cat-M, LoRa, LoRaWAN, WiFi

Transmission protocols supported
UDP, TCP, MQTT, LwM2M, DTLS, COAPS

Power:
<u>Battery</u>: Saft LS33600 3.7v 17000 mhA with 10+ Years LifeTime (sleep modes enabled)
<u>External Power</u>: 220V AC, 12V DC, 24V DC, Solar Panels

General
<u>Dimensions</u>: 156 x 111 x 71 mm
<u>Weight</u>: less than 500g

GATEWAY CERTIFICATIONS:

RED 2014/53/EU, RoHS 2011/65/EU, IP68

- EN 61010-1:2010
- EN 62311:2008
- ETSI EN 301 489-1 V1.9.2 and V2.1.1
- ETSI EN 301 489-7 V1.3.1
- ETSI EN 301 489-52 V1.1.0
- ELOT EN 61326-1 E2
- EN 301 908-1 V11.1.1 (2016-07)
- EN 63000:2018

INSTALLATIONS

ABOUT WINGS

WINGS ICT Solutions is an innovative Greek company that focuses on the development of digital solutions for various vertical sectors (with products for the areas: Environment, Utilities, Transportation, Aquaculture, Food Safety, Digital Healh Industry 4.0 & Logistics, e-Health, etc.) through AI, IoT, Big Data, Cloud, advanced wireless (4G, 5G, Lora, etc.) and security technologies.

D. Service Sectors
Health, Civil Protection, Tourism

Smart Cities

C. Production Systems
Industry 4.0, Aquaculture, Food safety, Logistics

WINGS
ICT SOLUTIONS
End to End
Technology Solutions

A. Environment
Air Quality

B. Networks & Infrastructure
Water, Energy, Gas, Parking, Buildings

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