

roactive 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





# **SPECIFICATION**

# TECHNICAL (Sensor) Reading interface

Wired: Pulse, Digital Inputs, M-Bus, RS232, RS485, Analog inputs, SPI, I2C, Profinet,

Wireless: 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:

Battery: Saft LS33600 3.7v 17000 mhA with 10+ Years LifeTime (sleep modes

External Power: 220V AC, 12V DC, 24V DC,

**Solar Panels** General

Dimensions: 156 x 111 x 71 mm

Weight: less than 500g

# **CERTIFICATIONS:**

GATEWAY 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.



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