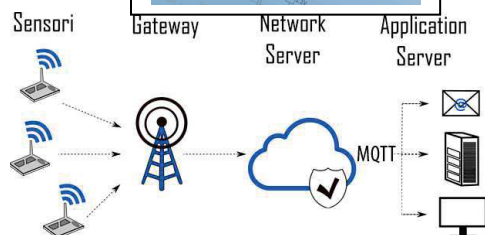# G2 misuratori
THE VALUE OF METERING

REMOTE READING SYSTEM FOR WATER METERS EQUIPPED WITH **LoRaWAN** ™ INTERFACE RADIO MODULE **FOR FIXED TYPE INFRASTRUCTURE**

BUILT IN RADIO MODULE

EXTERNAL RADIO MODULE
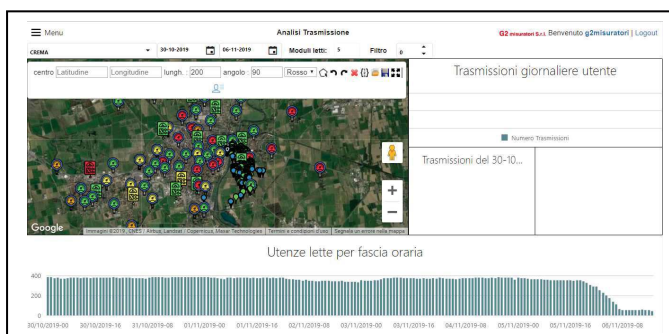
FIXED TYPE RADIO SYSTEM

- Transmission of data from various meters installed in manholes, niches, flats, etc.
- Radio communication interface with LoRa modulation on 868Mhz free frequency and LoRaWAN transmission protocol
- Dual communication
- Fixed system of collection and transmission via Gateway/Concentrator of data coming from the devices at regular intervals to the Network Server with dual and multicast communication
- Transmission distance about 15 km in open field (2-3 km in high populated towns), at the location of the gateway (distances may have variations in excess or defect due to natural obstacles from environmental conditions and electromagnetic pollution)
- Transmission data package including:

  - Instant consumption data
  - Historic reading of consumption per hour of previous 24 hours period
  - Low Battery
  - Possible alarms (general, fraud, reverse flow, low battery level,)
  - Leakage (loss report)

- The same radio module can be used for Walk By / Drive By readings via LoRa protocol transmission without configurations in the field

NETWORK SERVER FOR FIXED TYPE INFRASTRUCTURE

- Control layers, authentication, and quality of data received in the LoRaWAN network
- Receiving and storing the data transmitted by each device and elimination of unwanted or duplicate packets
- Dual and multicast communication to all covered devices
- Battery life optimized via Adaptive Data Rate (ADR) mechanism that modulates the output RF power of each individual node
- Through the application of the data management platform each data can be monitored and retrieved constantly and periodically via MQTT communication protocol

Sensori | Gateway | Network Server | Application Server

DATA MANAGEMENT PLATFORM FOR FIXED TYPE INFRASTRUCTURE

- Web interface accessible from any consultation and export of data collected during reading internet location with monitoring,shifts , analysis.
- Data synchronizing between back office operators and operations personnel on the field. Processing of reading shifts, user profiles, data reference
- Map representation of where the meter is located
- Analysis tools and statistical charts
- Import/export tools compatible with the BILLING CRM format
- Network analysys of the devices installed in the field
- It also supports infrastructure of fixed type with LoRaWAN communication protocol
- Cloud data storage at multiple levels of data security and data privacy

GATEWAY LoRaWAN

- Scheduled back up storage

L'Azienda si riserva di apportare modifiche ai dati tecnici e alle illustrazioni dei prodotti – 11/19