TELEREADING

wireless sensors network system

BUSINESS PRESENTATION

ABOUT US

Telereading S.r.l. is a company operating in the Information and Communication Technology field, specialized in the development of technological solutions and services applied to the IoT sector, with particular reference to the smart metering of water, gas and electricity.

Telereading S.r.l. was born in February 2007, as a spin-off of the printing division of Compunet S.r.l. Group, in order to expand the chain in the collection and management of data.

The solutions proposed by the company allow to improve the technical-management efficiency of the distribution of energy resources with a Global Service Company approach.

Thanks to continuous R&D activities, Telereading deals with solutions that best meet customer needs.

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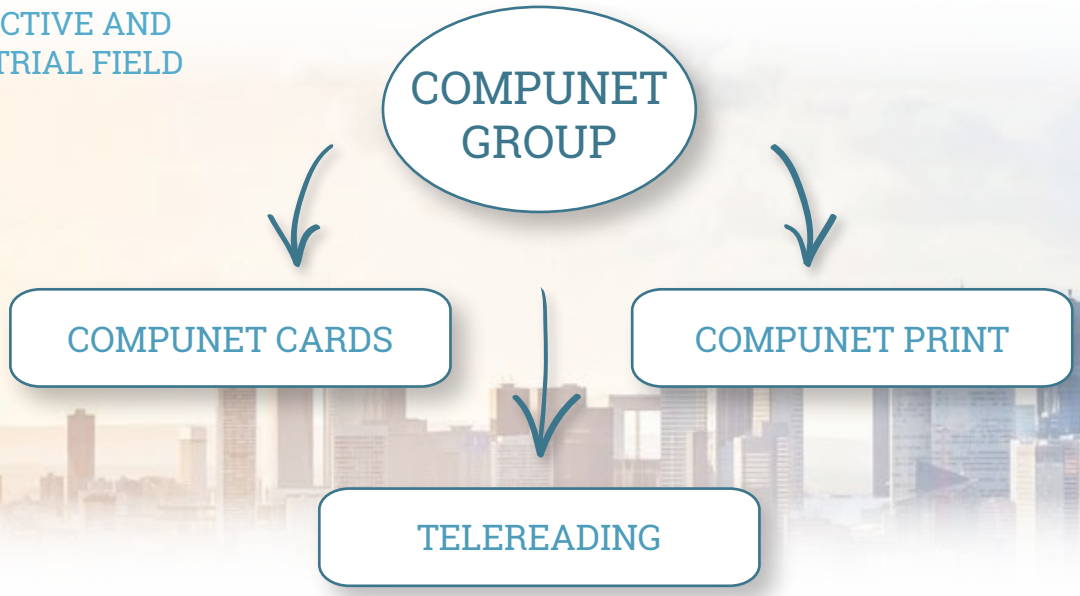
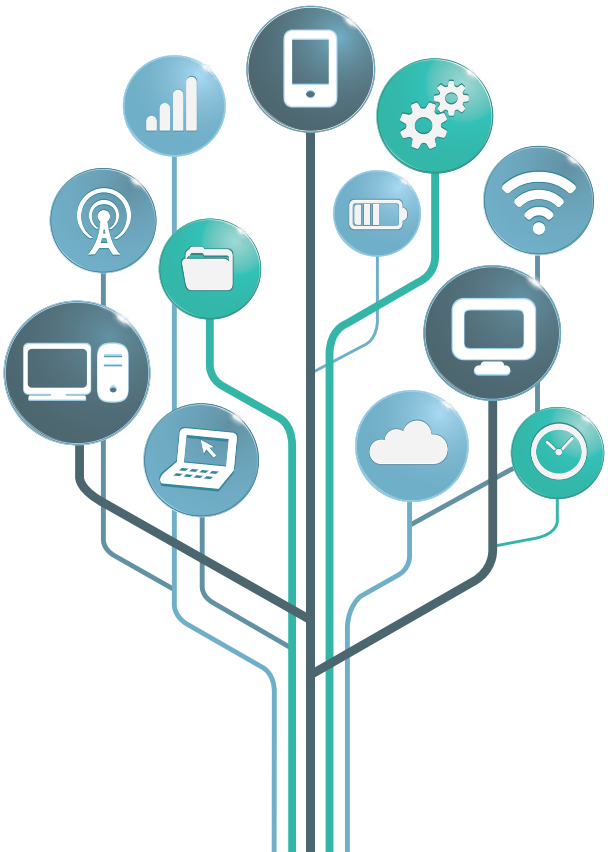
OVERVIEW
GROUP

PRODUCTIVE AND
INDUSTRIAL FIELD



REFERENCE
AREAS

- Smart **Cities**
- Smart **Utilities**
- Internet **Of Things**



- Energy
- Water
- Gas
- Waste
- Heat
- Hydrogeological Risk
- Public Lighting
- Environmental Sensors
- Parking

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SOLUTIONS FOR NETWORKS

SMART METERING

Hardware and software platforms for the efficiency of network services (water, gas, electricity, etc.) and in particular for the remote management of utility consumption.

The systems implemented are able to offer a technical-management advantage to the distribution companies.

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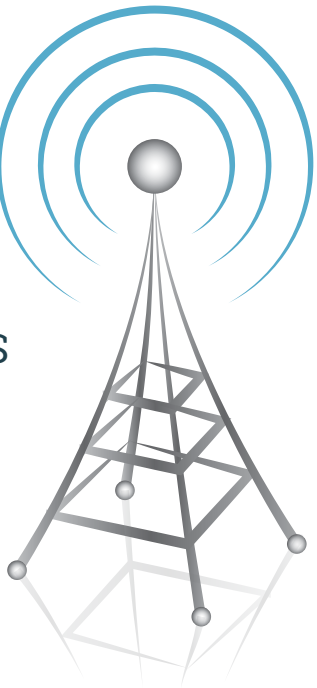
ARCHITECTURES

M2M
Machine to Machine

Transponder
M2M

BTS



It is a system based on a "point-to-point" architecture. The data collected in the field are sent directly to the central acquisition system for processing.

BACKEND

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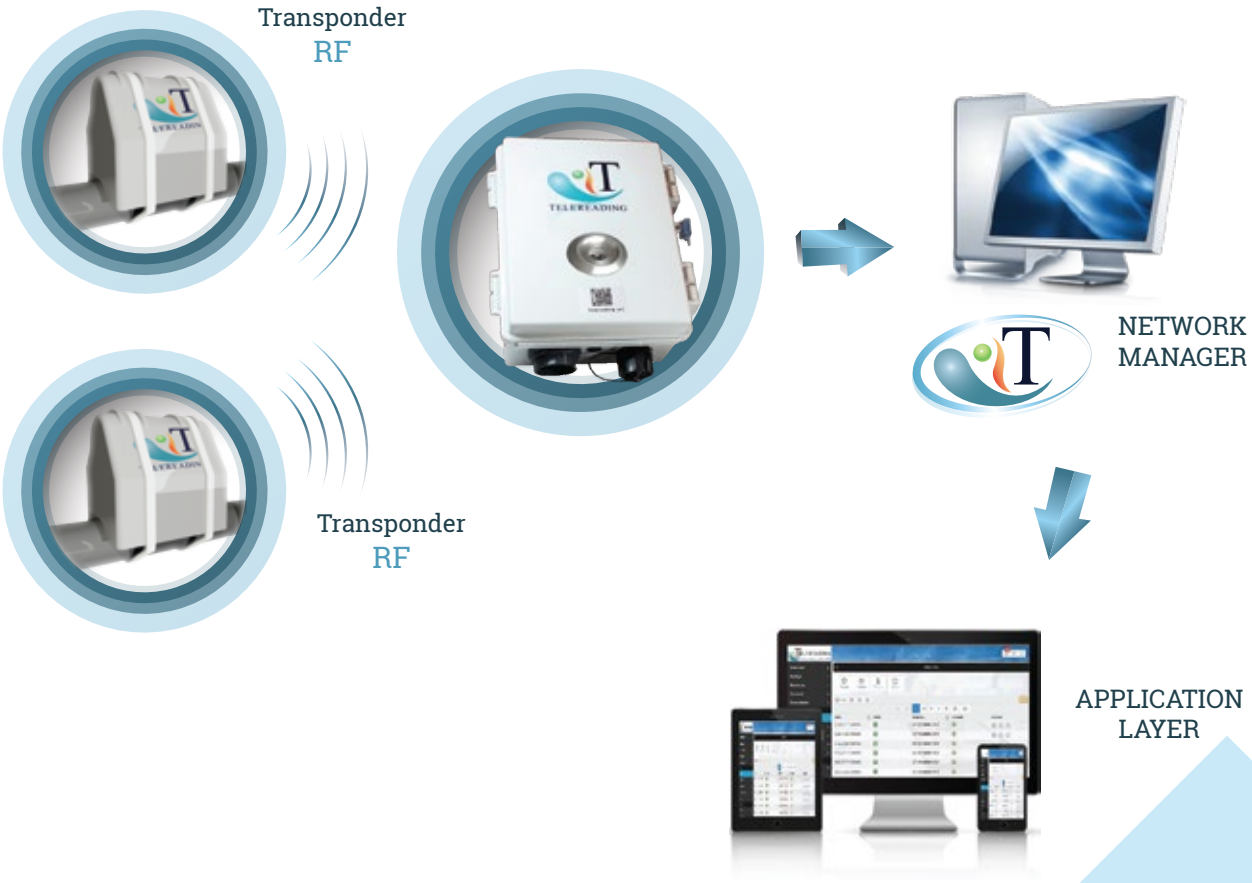
WAMRS

Wireless Automatic Meter Reading System

It is a system based on a "point-to-multipoint" architecture with RF transmission.



The data collected in the field are sent on a scheduled basis to a fixed concentrator that will provide to transmit them to the central acquisition system.

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TECHNOLOGIES

Point - Point (M2M)

Used / Supported Technologies

The **NB-IoT** solution is a LPWAN technology (Low Power Wide Area Network) is particularly suitable for creating networks that cover large areas and provide a significant savings in consumption of objects connected to the network.

NB-IoT

2G/3G/4G

In the modern technological scenario, the networks made available by the various providers play a fundamental role in the connections between users and in the use of devices.
The difference between 2G network, 3G, 4G is in the speed of data exchange in download and upload that is slower in the 2G version, while more powerful in the 4G / LTE network.

Point- Multi Point

Used / Supported Technologies

Wmbus is an EN European standard protocol developed for metering applications. A feature of the protocol is the division of the available band into multiple channels.
Typical working frequencies are 169 Mhz and 868 Mhz.

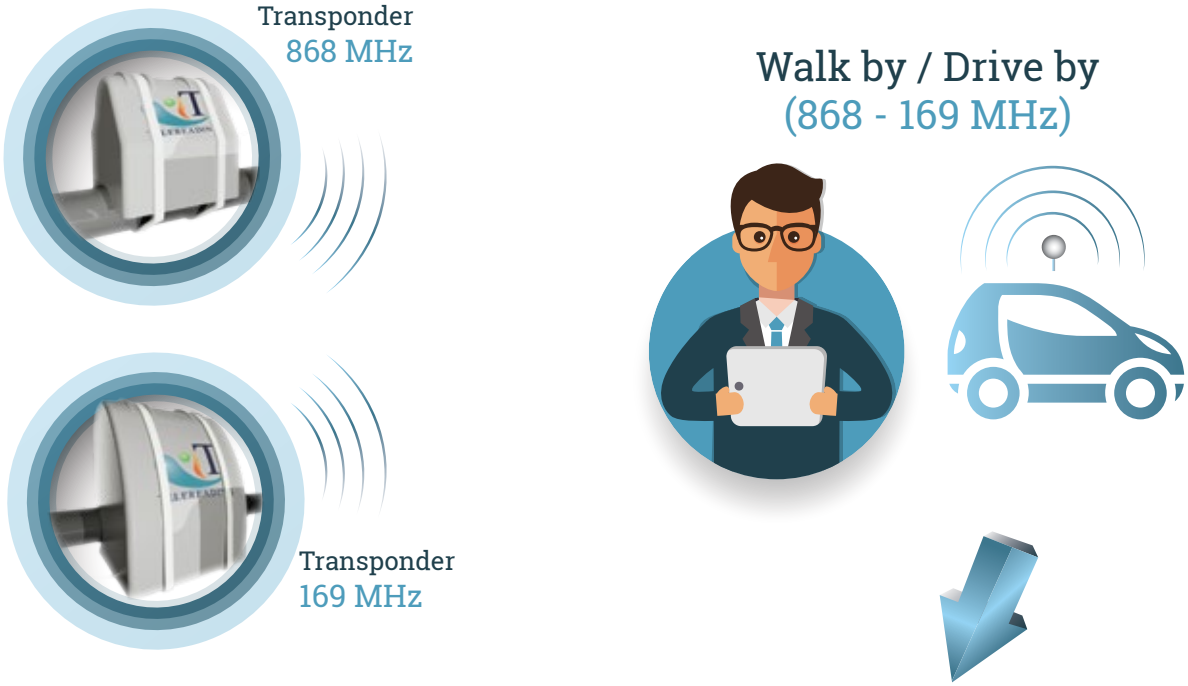
LoRa wireless technology is used in a wide variety of applications: smart metering, IoT, M2M communications. Features of this technology are low power consumption and a wide coverage range.

SigFox uses a UNB (Ultra Narrowband) technology to connect devices to their global network. The use of UNB is essential to provide a high capacity, scalable, and energy efficient network.

OSMRS

OffSite Meter Reading System

It is a system based on a "point-to-multipoint" architecture with RF transmission 169/868 MHz on WM-Bus protocol using an approach of walk-by or drive-by type.



Data acquisition is therefore not automatic, but requires the presence of an operator with a handheld receiver device nearby the meter whose reading is to be received.

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PRODUCTS

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CONCENTRATOR

Its task is to catch and store the data coming from the Smart Meters and forward the information received to the service center through a WAN network or through a GPRS / UMTS / LTE network

TRANSPONDER

The device is equipped with autonomous power supply, it is ultra low power and can be integrated or interconnected to the meter(plugin).
The readings are sent periodically to the central system on the basis of a preventive planning.

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REPEATER/ TRANSLATOR

The function of the repeater is to extend the area coverage.
The translator allows to translate the signal from one frequency to another, for example from 868MHz to 169MHz.

M-Bus wireless

SOFTWARE

Software for remote management and remote control of users in the multi-utilities sector.
Telereading software has been designed and built to collect data from smart meters for water, gas, energy and heat utilities.

The software can be divided into the following modules:

- **SAC /CAS** (Central Acquisition System)
  Data acquisition module from the Smart Meaters.
- **MDM** (Meter Data Management)
  Data management module and integration with management software.
- **NM** (Network Manager)
  Concentrator network management module and communication with smart meters.

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SERVICES

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Telereading thanks to its multi-disciplinary skills can provide a wide range of services for the various needs of Utilities, such as:

SYSTEM INTEGRATION

Design of software / hardware modules cooperating with pre-existing tools.

CUSTOMIZATION

Design of ad-hoc devices for wireless sensor networks.

RADIO PLANNING

An indispensable task to successfully design a network of devices that guarantees optimal communication performance and minimizes the loss of information. The aim is to maximize coverage and minimize costs.

RE-ENGINEERING

Technical and regulatory support for the re-engineering of business processes.

INSTALLATION AND MAINTENANCE

Thanks to the support of highly qualified staff / partners Telereading is able to offer turnkey solutions from design to installation, as well as supervision and constant control (h24) of all system components in order to minimize malfunctions.

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INSTALLATION
AREAS

List of the main projects supported by Telereading in the multi-utilities sector:

	HERA ACANTHO	IREN	ISERA (CPL)	ACICATENA / VILLA S. GIOVANNI (TELEREADING)	AGSM Verona	SPOLETO/FOLIGNO (VUS)	GIGAS / CENTRIA AEMME LINEA DISTRIBUZIONE	AMG PALERMO	VERCELLI (ATENA)	PALIANO (FR) (AMEA)
WATER	✓	✓	✓	✓	✓	✓	✓		✓	✓
GAS	✓	✓	✓		✓	✓	✓	✓	✓	✓
ENERGY	✓		✓						✓	✓
WASTE	✓									
HEAT	✓									

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CERTIFICATIONS

ISO 9001

ISO 27001

PARTNERS

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