

SMART METERING

A horizontal row of five circles. From left to right: a light blue circle, a dark blue circle, a light blue circle, a dark blue circle, and a light blue circle. The dark blue circle is the largest and is positioned to the left of the main title.

Smart Gas Management

HOW CAN TELEFÓNICA TECH HELP?

Our smart remote reading solution, designed to be flexible, scalable and secure, enables gas distribution companies to successfully meet the challenges of digital transformation.

Companies have the opportunity to transform their operations and manage them more efficiently by modernizing the gas meters in Spain, which consist of eight million mainly analog devices.

The regulations establish the replacement of 100% of the meters with smart devices by 2033, with intermediate goals of 15% by 2026 and 45% by 2029. This change not only optimizes resources but also improves the end customer experience by offering more accurate **measurements in real time, reducing errors** and allowing users **greater control over their consumption**.

The digitalization of meters not only complies with regulatory requirements but also **positions distribution companies as leaders in innovation and sustainability**, promoting a more transparent and efficient management of gas consumption.

WHO IS THIS SERVICE FOR?

Specifically designed for **gas distribution companies** looking to modernize their operations, comply with regulatory requirements for digital transformation and improve customer management and experience.

OUR VALUE PROPOSITION

Our service

The Smart Gas Management solution supports distribution companies in their digital transformation through a **complete end-to-end remote meter reading system**. This service collects data from smart meters, remotely monitors and manages devices, optimising operations and improving efficiency. The main features of the solution include:

- › **Flexibility:** Compatible with any smart meter and manufacturer protocol, as well as integrating customer systems through secure interfaces (SFTP and secure API).
- › **Centralized management:** Single interface for device management, measurement configuration and advanced display of readings and alarms.
- › **Open:** Uses the standard NB-IoT protocol (3GPP), part of the 5G standards, guaranteeing the evolution of the service and technological continuity.
- › **Quality of Service (QoS):** Ensures performance through efficient resource allocation, interference management and congestion mitigation.
- › **Scalability:** Capacity to manage massive deployments through LTE and cloud infrastructure.
- › **End-to-end security:** Implements authentication and security inherent to the LTE network, reinforced with IPsec and dedicated APNs.
- › **Deployment capacity:** Efficient communication in regulated frequency bands, guaranteeing robust and stable connectivity.

What does it allow you to do?

Our solution offers a wide range of functionalities designed to **facilitate the management and optimization of smart meters and their associated infrastructure**:

- › **Centralized management:** Single interface for the administration, monitoring and visualization of all relevant information.
- › **Remote control of smart meters:**
 - Configuration of measurements and data upload frequency.
 - Monitoring of asset status, including coverage level, remaining battery, meter tampering or communication failures.
 - Generation of alarms and critical events.
 - Remote firmware update.
- › **Inventory of deployed assets:** Efficient management of devices in the field, optimizing monitoring and maintenance.
- › **Provision and commissioning:** Specific adaptation to manage massive deployments in an agile and efficient way:
 - Graphical representation through intuitive dashboards that show the most relevant KPIs of the business.
 - Creation and export of personalized reports.
- › **Technological flexibility:** Available in SaaS mode with API integration to adapt to the specific needs of each customer.

It is also an **agnostic and modular solution** that allows for the independent installation of different applications aimed at optimizing management, operation and maintenance in all areas of the integral water cycle. It **provides a single management point** that interconnects all solutions through an advanced data model and a smart algorithm engine.

Benefits

The Smart Gas Management solution provides key benefits for both distribution companies and end users:

- › **Elimination of manual reading systems:** Reduction of operating costs and errors associated with manual processes.
- › **Early detection of fraud and leaks:** Improves security and minimizes economic losses.
- › **Reduction of non-technical losses:** Increases the efficiency and profitability of operations.
- › **Improved operational efficiency:** Allows for accurate demand forecasting to optimize supply management.
- › **Automated shut-off:** Remote shut-off valves can be closed for greater security and control.

Benefits for the end customer:

- › **Accurate and real billing:** Elimination of estimates, offering clarity and precision in the registered consumption.
- › **Improved customer service:** Faster resolution of complaints and greater overall satisfaction.
- › **Improved user experience:** Trust and security thanks to advanced technology in gas consumption management.

Telefónica Tech's differential value



Our **end-to-end solution** stands out for being **open, secure, scalable, and certified** for the remote reading of smart gas meters. This technology not only **reduces the costs associated with manual** reading, but also **allows for accurate energy balancing, maximizing the benefits** for distribution companies. At the same time, it **improves end-user satisfaction** by offering accurate billing and a more efficient service, strengthening the relationship with customers.

BUSINESS MODEL

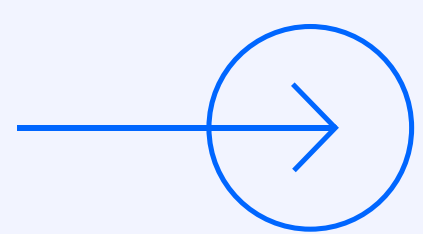
We offer a **comprehensive end-to-end service** that includes everything from the provision of smart meters and the necessary connectivity to management platforms and advanced data analysis.

This model allows gas distribution companies to improve the quality of service, increase safety, optimize operational savings and actively contribute to caring for the environment.

RELATED SERVICES

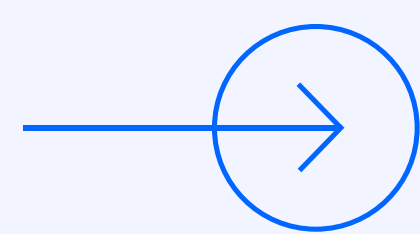
AI & Data Consulting

We design a master transformation plan centered around data, guided by your business priorities. Based on these priorities, we build a technological ecosystem of IoT and Artificial Intelligence, enabling your company to leverage the potential of these new technologies to generate new revenue streams, optimize costs, or reduce risks.



Industrial Cyber Security Assessment

Our experts will support you in the development of industrial cybersecurity master plans, regulatory compliance analyses, technical consulting, and penetration testing, including security evaluations for robots.



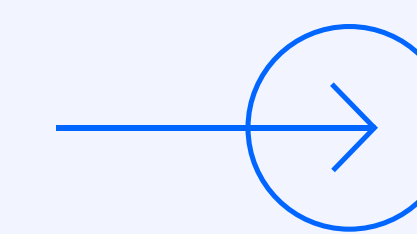
Hybrid Cloud

We drive your growth with multicloud solutions from our partners:

- › AWS by Telefónica Tech
- › Microsoft Azure by Telefónica Tech
- › Google Cloud Platform by Telefónica Tech
- › Oracle Cloud Platform by Telefónica Tech

Additionally, we offer Telefónica Tech Cloud Platform, an integrated Cloud solution covering everything from on-premise to our Data Centers and Edge, with multiple telco connectivity options and local nodes in seven countries.

- › Telefónica Tech Cloud Platform



Contact us to start the digital transformation of your organization.

