



The Gas Smart Meter GCP provides a unified framework for gas smart metering, supporting more **efficient operations, facilitating integration across multi-vendor environments** and providing a foundation for the continued evolution of digital gas metering infrastructures.

GSM (Gas Smart Meter) GCP Overview

The Gas Smart Meter (GSM) Generic Companion Profile (GCP) provides a standardized framework for data exchange between gas smart meters and head-end systems. It defines the technical, functional, and security requirements for gas smart meters within the DLMS/COSEM framework and provides clear guidelines for implementation and compatibility certification.

The GSM GCP enables secure, reliable and interoperable data exchange between devices from different manufacturers, helping gas utilities and network operators simplify system integration, reduce deployment complexity and increase operational efficiency.

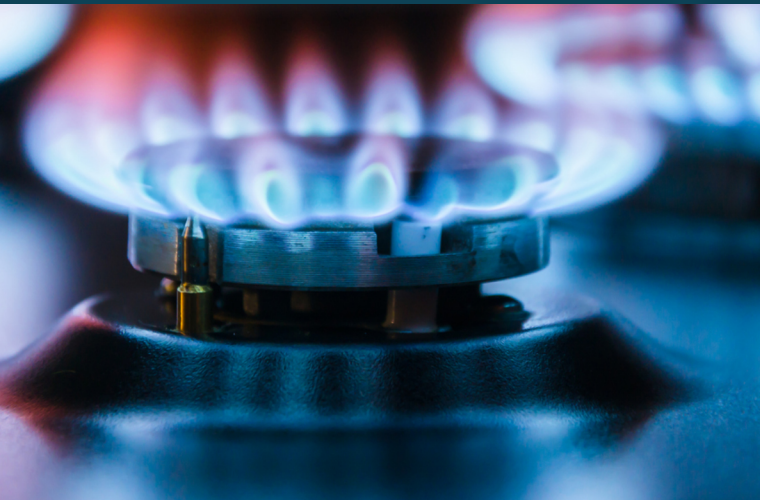
By providing a common framework for gas smart metering, the GSM GCP supports standardized and scalable data-driven technologies while enabling a broad range of operational capabilities, from reliable data collection and load profiling to remote supply management, security management and firmware updates, all optimized for battery-powered devices.

Addressing Industry Challenges with GSM GCP

The gas smart metering market increasingly relies on connected devices to support efficient meter management, reliable data collection and remote operational services. However, differences between manufacturers and communication solutions can create interoperability challenges and increase the complexity and cost of integrating smart meters into existing systems.

The GSM GCP directly addresses these challenges by defining a standardized data exchange model and format, enabling gas smart meters and head-end systems from different manufacturers to exchange data using a common DLMS/COSEM-based framework.

The GSM GCP also provides a common foundation for compatibility certification, helping reduce integration complexity and deployment risks and providing utilities and manufacturers with greater confidence in interoperability. Designed with battery-powered devices in mind, it also provides an efficient data model mechanisms to minimize battery consumption.





KEY BENEFITS

- Legally Relevant Data:** Enables secure transmission of metrological data from gas meters for compliant billing and auditing.
- Certified Interoperability:** Devices implementing the GSM GCP can be tested for compatibility, supporting interoperability within the gas smart metering ecosystem and simplifying utilities' and network operators' multi-vendor deployments. DLMS UA's certification approach helps reduce the need for bespoke interoperability testing and certification arrangements.
- Telecommunication Agnostic:** The GSM GCP operates independently of specific telecommunication technologies, supporting secure, reliable and interoperable data exchange across current and future communication networks.
- Operational Efficiency:** By providing a common framework for key gas smart metering functions, the GSM GCP supports efficient data collection, meter management and remote operational activities while reducing the complexity of integrating devices from different manufacturers.
- Global Standardization:** The GSM GCP provides a common, internationally applicable framework for gas smart metering based on DLMS/COSEM, helping manufacturers and utilities avoid fragmented approaches and supporting interoperability across markets.

Highlighting the Main Use

- 1 Basic Services**
Supports reliable messaging where communications can be initiated by the gas meter, the head-end system or, in applicable scenarios, through a local interface
- 2 Clock Synchronization**
Enables alignment of the gas meter's internal clock with another time source.
- 3 Malfunction / Fraud Detection & Reporting**
Supports the timely delivery of malfunction and fraud alarms and event logs from the meter to the head-end system.
- 4 Dynamic Tariff Capabilities**
Supports billing-period recording and time-of-use configuration for consumption operations.
- 5 Load Profiling Capability**
Enables the collection of load profile information from meters for billing, measurement and other purposes.
- 6 Supply Management**
Supports the configuration and operation of the meter's disconnecter to control the supply to the destination point.
- 7 Installation & Commissioning**
Supports the installation and enrollment of a metering unit on an operating network, covering both active and planned networks.
- 8 Security Management**
Supports the management of security settings within the gas smart meter.
- 9 Meter Configuration**
Supports the management and execution of firmware updates between a head-end system or external delivery tool and the gas smart meter.