Sm@rtering

Integrated energy platform for metering and power network management

Adoption of smart meters, solar panels and electric vehicles requires integrated solutions for managing network and meter operations.

Business needs

When it comes to developing smart grids to improve reliability, quality, efficiency and customer engagement, distribution system operators (DSOs) need to manage numerous requirements, including:

- Digitalization and smart grid migration
- Distribution and production impacts
- Multiple Advanced Metering Infrastructure (AMI) systems
- Maximizing AMI data and investments
- Improving operational efficiency

Our answer

For electric, water and/or gas DSOs implementing smart meter infrastructure or seeking to optimize smart meters already implemented, **CGI's Sm@rtering** provides a secure, integrated platform for managing and supervising data collection, energy data management (EDM) and smart grid capabilities**.** The platform allows DSOs to:

- Monitor AMI network performance, identify problems, perform root-cause analysis and act to resolve issues and improve performance
- Collect and manage all AMI network data, across all suppliers, in real time
- Support water, gas and electricity meter data as well as residential, commercial and industrial customers in multiple geographies
- Enhance outage detection to reduce incident duration and cost
- Enable flexible load operation for a reliable and balanced network
- Manage micro-generation and electric vehicle (EV) charging

Modularity

Sm@rtering modules can be implemented separately or together:

- **Grid Control** - Monitors and controls network edge devices; supports analysis of data from both AMI and power networks
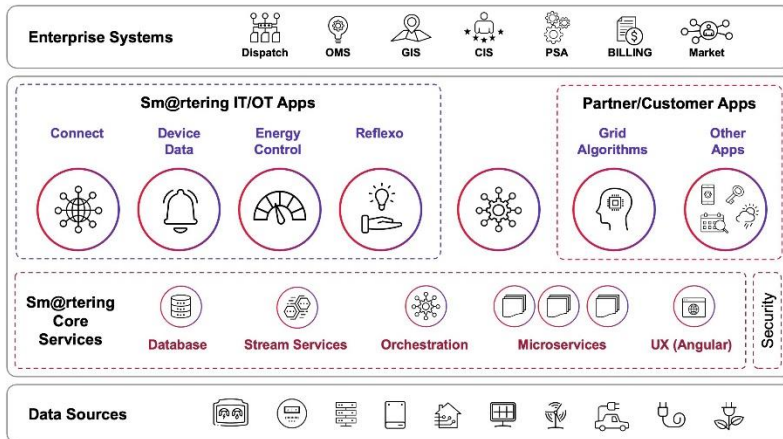
Sm@rtering is a scalable energy platform for low-voltage network supervision, flexibility and optimization through edge network data and integration with corporate IT and OT systems.

6 million+
smart meters in Europe and North America are managed by Sm@rtering.

Sm@rtering is an important component of the CGI OpenGrid360 suite of solutions designed to help utility network owners and operators improve data insight and accelerate innovation to support the move to a more flexible and sustainable future grid.

- **Device Data** – Manages data from multiple network edge devices; includes Validation and Estimation Engine (VEE) functionality, data aggregation and energy calculations
- **Connect** – Manages communications with network edge devices as well as scheduling; supports different protocols, equipment manufacturers and communications infrastructure
- **Reflexo** – Allows DSOs to view and manage distributed energy resources (DERs) from micro-producers to mitigate possible adverse network impacts and optimize the use of current infrastructure

Scalability

Sm@rtering's scalable architecture supports millions of edge devices and can adjust to different use cases. The platform can be implemented in the cloud or on-premises. Microservices permit independent addition/replacement of working parts, as well as horizontal and vertical scaling.

Device, vendor and protocol independent

A multi-product, multi-protocol, manufacturer-independent system, Sm@rtering communicates with different edge devices (e.g., meters, gateways, data concentrators, sensors, PV inverters, etc.). Its standard APIs interface with commercial systems or other market operators.

Value-added data services

Sm@rtering offers value-added data services to enable rapid and secure deployment of new business capabilities.

Security by design

Sm@rtering's numerous built-in security features include user-based credentialing, auditing of changes, external system credentialed access, and security standards compliance.

At the forefront of AMI innovation

Sm@rtering represents many years of experience with AMI projects such as Inovgrid at E-REDES Distribuição in Portugal (formerly EDP Distribuição) and E-REDES DISTRIBUICIÓN in Spain.

We've been at the forefront of the AMI revolution since it was just an idea. Working with leading companies and researchers, we've partnered in the development of Inovgrid in Portugal, which was selected by Joint Research Centre of the European Commission and Eurelectric as the single case study for the testing and validation of the Business Case Assessment Methodology.

About CGI

Insights you can act on

Founded in 1976, CGI is among the largest IT and business consulting services firms in the world.

We are insights-driven and outcomes-based to help accelerate returns on your investments. Across hundreds of locations worldwide, we provide comprehensive, scalable and sustainable IT and business consulting services that are informed globally and delivered locally.

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