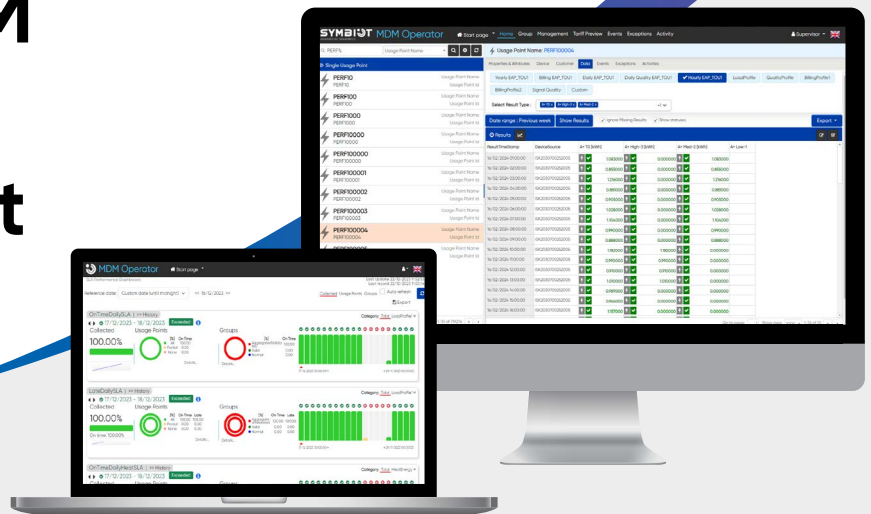# iskraemeco
BY ELSEWEDY ELECTRIC

Symbiot MDM Meter data management

Multi-source data validation, management and control

Validate, manage, and control data from advanced meters and smart grid devices. Symbiot MDM provides insights into consumption and event patterns. Available as a standalone enterprise solution or an integrated component of a vertically aligned system, the Symbiot MDM offers flexible delivery options, including on-premises, SaaS, or fully managed service models.

The system supports event analysis to enhance outage detection, theft detection and prevention, and prepayment rollouts. By collecting and analyzing detailed meter data, Symbiot MDM delivers valuable insights that optimize billing accuracy, improve service reliability, and ensure grid stability.

Application areas

Residential
End-to-end solution for meter data management, connectivity, data analysis and integration with customer applications.

Commercial & industrial
A holistic solution for energy management, enabling C&I consumers to gain greater visibility into their energy usage, optimize costs, ensure regulatory compliance and integrate renewable energy sources.
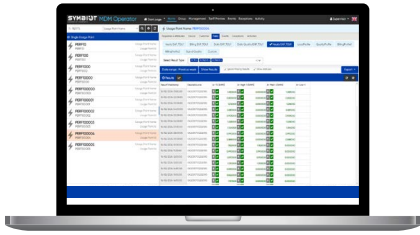
Grid
Symbiot MDM enables grid consumers (utilities, DSOs, and TSOs) to optimize monitoring, demand management, renewable integration, and revenue protection while enhancing forecasting, outage response, and compliance.

Submetering
Supporting submetering applications, providing functionalities for data management in multi-tenant facilities.

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- **Management of all types of data** from meters, sensors and communication devices.

- **Multi-utility support** (electricity, water, heat, gas, etc.).

- **Validation, estimation, and editing (VEE).** Aggregating data into a unified value, estimating non-conforming data, or flagging it for review. This can be done using customizable algorithms or manual editing.

- **Virtual usage points** with intelligent aggregation, usage framing, or calculation of net energy delivered for consumers in renewable energy programs.

- **State management** for devices and usage points. Grouping of usage points to simplify administration, workflows, and command execution by extensive attributes, types, and geography.

- **Event processing** and alarm management.

- **Robust data protection with encryption,** authentication, and key management, safeguarding communication and preventing unauthorized access.

- **Tariff management** with support for simple to very complex tariffing schemes.

- **Billing data** maintenance and supply to enable upper systems to generate accurate invoices.

- **Long-term data repository** with detailed analysis and compliance with regulatory requirements.

- **Import and export** support a wide variety of web services and file formats.

- **On-demand and scheduled activity monitoring and execution,** e.g., meter reading, connection, disconnection, and aggregation.

- **MDM supports prepayment and vending systems** through different interfaces.

- **Interfacing:** SOAP-based endpoints, Open/REST APIs, CIM connectors.

- **Integration and timely transmission of data with following external applications:**

  - Billing/ERP systems,
  - Customer information systems (CIS), web portals, and mobile apps,
  - Customer relationship management (CRM) tools,
  - Outage management systems,
  - Business process management (BPM) platforms,
  - Geospatial information systems (GIS),
  - Workforce management systems (WFM),
  - SCADA systems for gas and electricity,
  - Various third-party HES systems,
  - Business intelligence (BI) and reporting solutions,
  - Asset management systems,
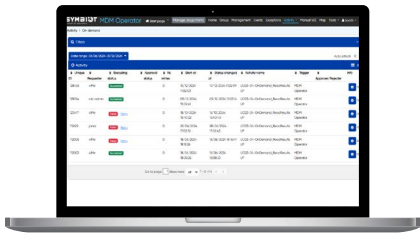 - Numerous other utility applications.

MDM data page

Enables users to view, edit and generate data reports efficiently.

SLA performance dashboard

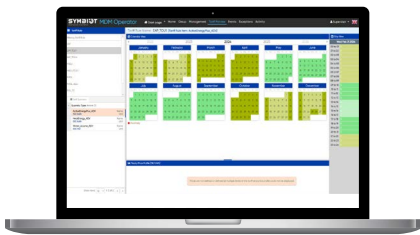The dashboard enables users to track SLA performance against predefined metrics within a specified time range.

MDM activities information

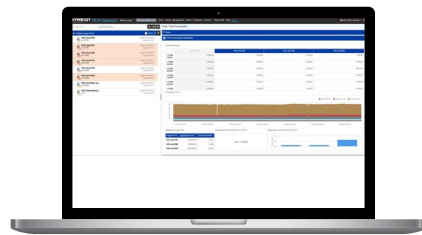The dashboard helps monitor MDM activities by date and track their execution status.

MDM activities monitoring

A customized dashboard designed to track and display activity progress.

Tariff details

The dashboard provides detailed information about applicable tariff rules.

Total consumption

Dashboard overview displaying total values for the selected usage point's data.

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Benefits

Operational efficiency

Symbiot MDM automates key smart metering processes such as meter reading, connection/disconnection, and data aggregation, reducing manual effort and operational costs. By consolidating operations into a single platform, it eliminates silos and simplifies multi-resource management.

The system also enables proactive issue resolution and seamless integration with enterprise applications, optimizing workflows, reducing errors, and improving resource utilization.

Improved visibility

Symbiot MDM transforms raw data into actionable insights, providing real-time details on energy usage, outages, and tampering. This enhanced visibility allows utilities to optimize grid operations, improve energy efficiency, and respond quickly to issues. Additionally, the system ensures metering data is secure, auditable, and accessible to utility enterprise applications, energy suppliers, and other stakeholders.

Cost savings

MDM reduces operational costs by automating meter reading, remote configuration, and billing, cutting field visits and manual errors. It prevents revenue loss through theft detection and supporting prepayment. Optimized grid management lowers energy procurement costs. Compliance automation avoids penalties, while cloud-based MDM reduces IT infrastructure expenses, maximizing overall savings.

Customer satisfaction

Accurate billing and real-time consumption data help reduce disputes and improve transparency, enhancing customer trust. Reliable performance and detailed insights enable advanced analytics and new value-added services, increasing engagement and strengthening the utility's reputation.

Regulatory compliance

Symbiot MDM ensures compliance with relevant regulations and industry standards, meeting all required data management, integration and reporting requirements. This minimizes risk and supports audits.

Scalability for future growth

Designed to support increasing data volumes and evolving customer needs, Symbiot MDM scales seamlessly with the expansion of smart meters, ensuring minimal disruption and long-term operational stability.

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