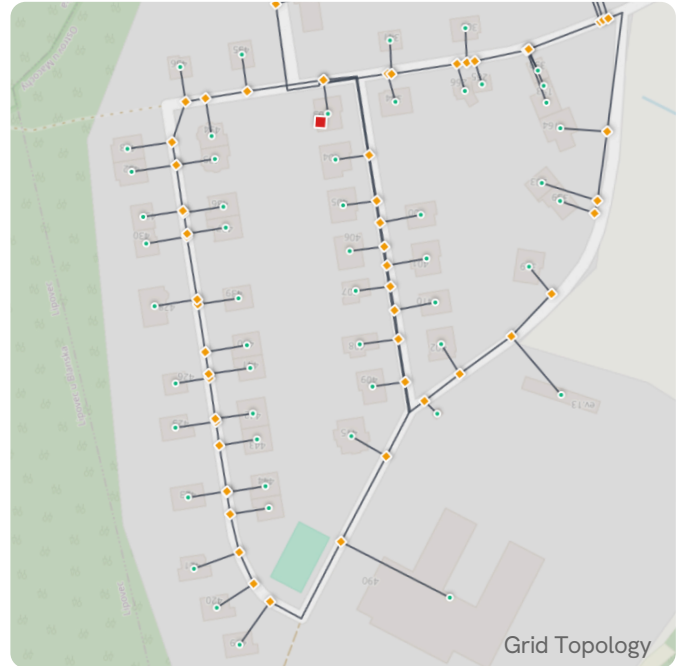


Grid-Mapper

Reliable low-voltage grid topology data is essential to distribution system operators (DSOs) for efficient grid operation, fast outage response, and optimized field work. While GIS systems are commonly used to manage topology data, this data is often created and maintained manually, making it difficult to keep it fully aligned with actual grid conditions.

Grid-Mapper is a set of software modules that combines edge analytics, running directly within existing smart meter infrastructure, with cloud-based computation to **automate the topology verification process and improve GIS data accuracy** without additional hardware or manual effort.



Gain a Fully Observable Grid



Parent Feeder/Substation Localization

Detect the actual supply path of each delivery point, along its feeder to its secondary substation to enable substation balance calculations, identify energy losses, prevent outages, and plan grid improvements.



Supply Path Topology Verification

Ensure your GIS data matches the actual network, reveal discrepancies, and see how the grid is truly connected. This helps you to reduce costs on manual surveys and gain a clear, reliable view of your low-voltage network.

No digitalized topology yet? We can help!

Our solution can identify and validate supply paths automatically utilizing existing data, e.g. GPS coordinates and open-source satellite imagery, minimizing costly and time-consuming manual topology reconstruction.



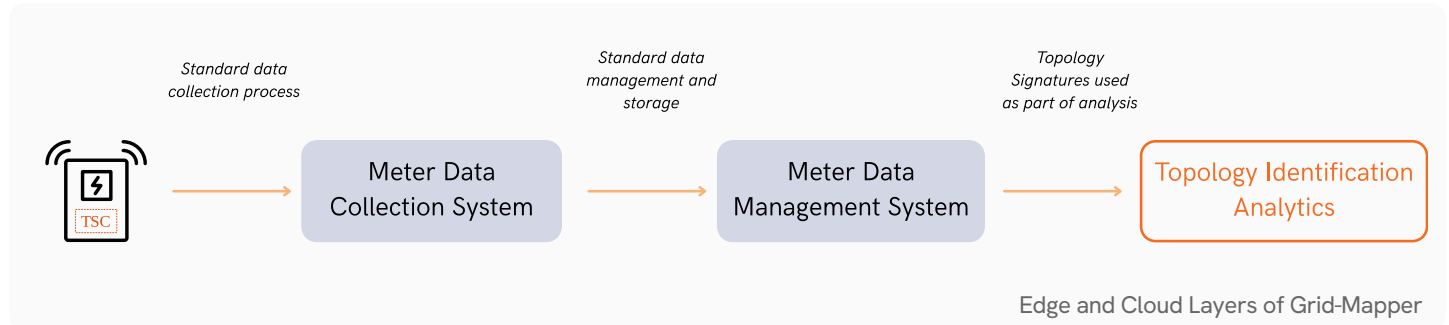
Phase Connection Detection

Accurately detect phase connection for all your consumption points to identify root causes of phase asymmetry and make better use of your available grid capacity.

Leverage Your Existing Smart-Meter Infrastructure

Our **Topology Signature Calculator (TSC)** embedded within smart meters collects specific data (e.g. voltage, current, energy) and generates **topology signature profiles** via DLMS/COSEM profiles.

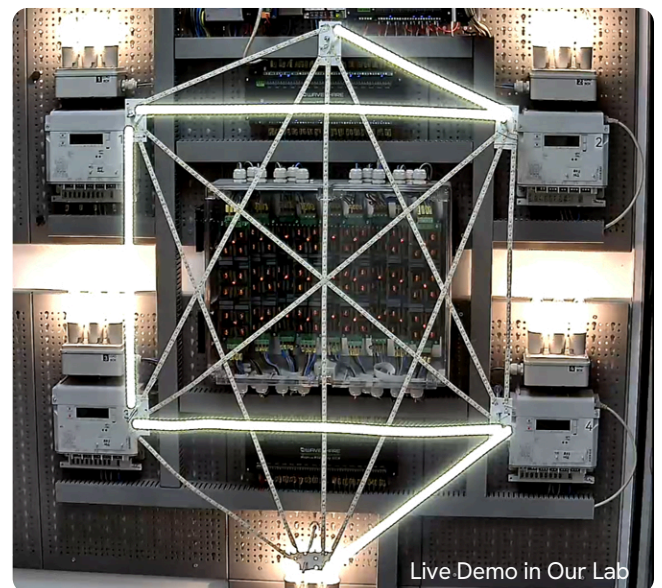
These profiles, collected via standard MDC/MDM systems, are analyzed in the cloud, giving you a clear view of your grid topology.



Live Demo: See Our Solution in Action!

Explore our solution through a real-time demo. Define your own grid topology and see how our algorithm evaluates possible topologies to identify the most likely network connectivity. Your selected topology comes to life on a dedicated test network in our lab, alongside a live stream that lets you observe the full process and understand how the solution performs under real operating conditions.

The demo highlights just one of the capabilities of our metering intelligence platform and shows how it supports smarter, more efficient grid operation.



Why Choose Grid-Mapper?

- ✓ Seamless integration with existing smart meter infrastructure
- ✓ Reduced manual field work and operational costs
- ✓ Reliable and always up-to-date grid observability
- ✓ Increased confidence in network topology derived from GIS data
- ✓ Accurate detection of phase connectivity to manage phase imbalance
- ✓ Enables proactive detection of network constraints as EV, heat pump, and PV adoption grows

Interested in trying it yourself? [Book a demo session!](#)