DSO Operational Intelligence



At Ariadna, we bring a cross-cutting vision to the power distribution business. Our platform integrates a **digital twin** — a living, dynamic model of the grid that mirrors its real topology, phases, and operating state — with **advanced analytics** for loss and NTL detection, power quality assessment, load forecasting, and what-if scenario simulation.

Combined with comprehensive **field device management** — covering commissioning, firmware, work orders, and multi-vendor remote control — Ariadna seamlessly interoperates with **SCADA**, **ADMS**, **MDM**, **and GIS** systems to deliver a unified, data-driven view of the network.



Field Device Management

This unique combination empowers utilities to govern the grid end-to-end — from operations, maintenance, and planning to regulatory compliance — while accelerating **DER and EV integration**, optimising investment decisions, and driving measurable network performance.

Results that Matter

Ariadna empowers utilities to turn data into action, achieving measurable operational and financial impact.

- ROI-driven decisions that prioritise value
- Targeted CAPEX where it truly matters
- Reduced OPEX through smarter operations
- Improved SAIDI/SAIFI and grid reliability
- Superior power quality for every customer
- A grid ready for flexibility markets

One partner

Every layer of your grid

Grid Observability

A clear, data-driven view of grid behaviour and evolution.

- Hosting capacity evaluation
- Hotspot and overload detection
- DER & EV load growth monitoring
- Flexibility readiness analytics

System Integration & Operational Excellence

Built to interoperate, scale, and protect.

- Open APIs and industry standards
- Seamless integration with SCADA, ADMS/OMS, GIS, AMI/MDM
- Smooth commissioning and ramp-up processes
- · Scalable, high-performance architecture
- Robust cybersecurity framework: ISO 27001, IEC 62443, Zero Trust, PKI/TLS, RBAC, audit & SIEM

Analytics & Smart Decisions

From data to intelligence — automated, actionable insights.

- Automated topology reconstruction
- Energy balance and loss analytics
- Voltage and power quality monitoring
- Broken neutral and fault detection
- Temperature & anomaly detection

ROI, CAPEX & OPEX Optimisation

Driving financial efficiency across the grid lifecycle.

- Loss & fraud (NTL) reduction
- Asset life extension and maintenance optimisation
- Precision-guided field operations
- SAIDI/SAIFI performance improvement
- Deferred CAPEX through data-driven planning



