Distribution intelligence

See what's happening out there before your customers tell you.
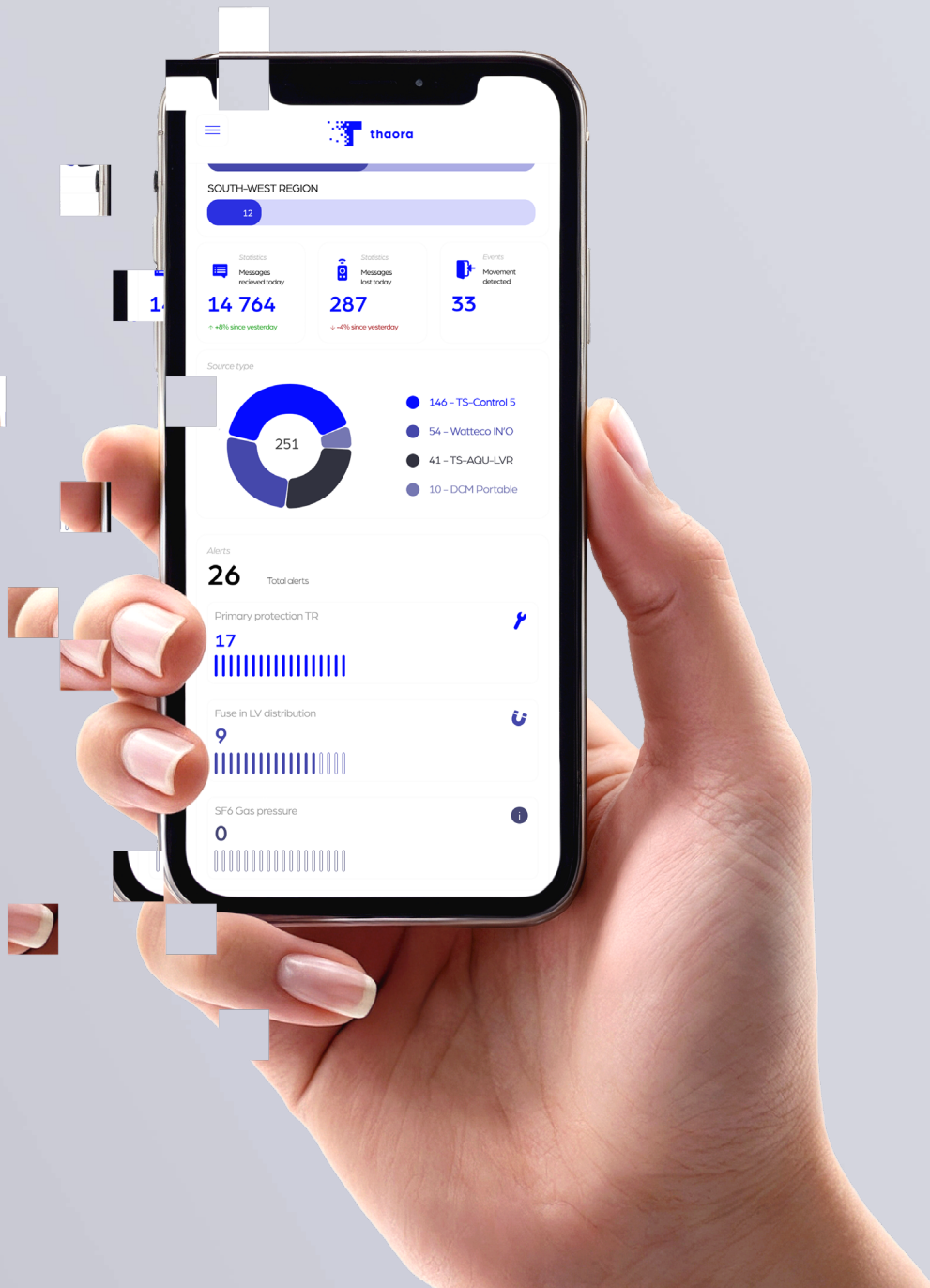
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When the grid can
see itself, **it can**
protect itself.

Distribution System Operators are under constant
pressure. Rising operating costs, outage penalties, and
the growing complexity of distributed energy sources

And yet, most medium– and low–voltage
substations still operate in the dark.

Extending full monitoring across the network is
either too costly or too complex, which means
outages are often discovered only when
customers call to report them.

FULL
NETWORK
AWARENESS

without full system replacement.

Thaora Distribution Intelligence brings real-time awareness to LV networks and secondary substations without forcing full system replacements.

Through modular deployment of field sensors, signal units, and measurement instruments, it continuously captures electrical and environmental conditions, not once a month, but in near real time.

AI-powered analytics turn that data into foresight: detecting issues early, reducing emergency callouts, improving crew allocation, and extending equipment lifespan. It's vendor-neutral, easy to deploy, and slots cleanly into existing infrastructure.

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SOUTH-WEST REGION

12

Statistics — Messages recieved today
14 764
+8% since yesterday

Statistics — Messages lost today
287
-4% since yesterday

Events — Movement detected
33

Source type

251

- 146 – TS-Control 5
- 54 – Watteco IN'O
- 41 – TS-AQU-LVR
- 10 – DCM Portable

Alerts
26 Total alerts

Primary protection TR
17

Fuse in LV distribution
9

SF6 Gas pressure
0

STABILITY
you can measure.
And prove.

The results show up quickly: fewer outages, fewer site visits, longer asset life, and lower OPEX.

By improving SAIDI/SAIFI indicators and enabling targeted investments, Thaora accelerates return on every step of modernization. It doesn't just upgrade visibility: it future-proofs the entire grid layer by layer.

THAORA **DISTRIBUTION** INTELLIGENCE

METERING SUBSYSTEM

- Measurment instruments
- LV sensors
- Signal units

COMMUNICATION LAYER

- LPWAN
- Cellular networks
- Protocol adapters / Connectors

REMOTE DATA

MEASUREMENT DATA

HARMONIZED DATA

DATA STORAGE & MANAGEMENT

- Data Warehouse
- Time–Series DB
- IT/OT integration

ANALYTICS & ALGORITHMIC LAYER

- AI/ML models
- Data processing models
- Anomaly / Trend detection
- Statistical models
- Model retraining

INSIGHTS

VISUALIZATION & CONTROL LAYER

- Reporting
- UI
- Planning tools
- Decision support
- Maintenance optimization

Users

INTEGRATION & INTEROPERABILITY

- Modular Add-ons
- Secure forwarding
- ERP
- Weather data

API endpoints

DATA

WEATHER DATA

DEPLOYMENT ENVIRONMENTS

DEPLOY

- On-Premises
- Cloud

Cost–effective grid digitalization.

Thaora Distribution Intelligence allows DSOs to extend **real–time visibility** across LV networks and secondary substations — without the heavy expense of traditional SCADA or ADMS rollouts.

By leveraging data from existing field sensors, signal units, and measurement instruments, the platform delivers AI/ML–driven insight in near real time, reducing both implementation effort and time to value.
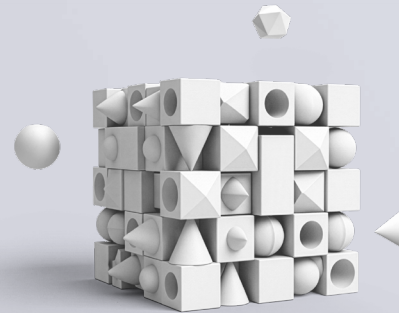
The result: lower OPEX, higher reliability, and improved operational efficiency. Vendor–neutral and easy to deploy, it integrates cleanly with existing systems, allowing utilities to modernize monitoring and maintenance strategies while accelerating ROI.

Vendor– and network–agnostic by design.

Thaora doesn't lock operators in. **It adapts.**

Pre–integrated with **multiple sensor types**, it can be extended to support new devices as the network evolves.
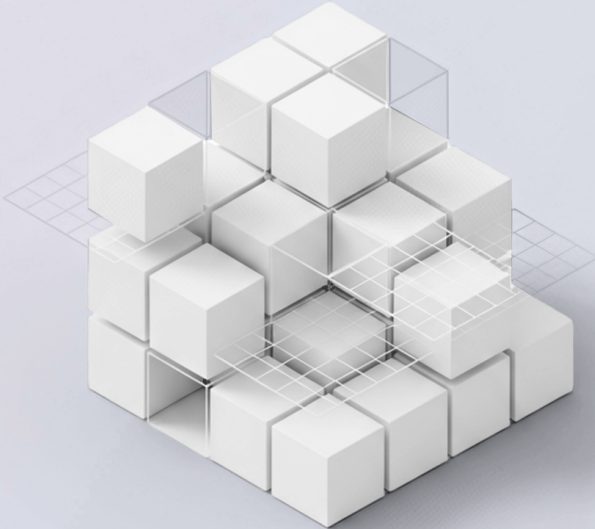
Fully network–agnostic, Thaora supports communication over LoRa, NB–IoT, Sigfox, LTE–M, and other standard communication technologies, enabling **seamless data exchange across diverse environments.**

The platform integrates with a wide range of measurement devices, communication protocols, and analytics components, ensuring long–term flexibility and technology freedom.
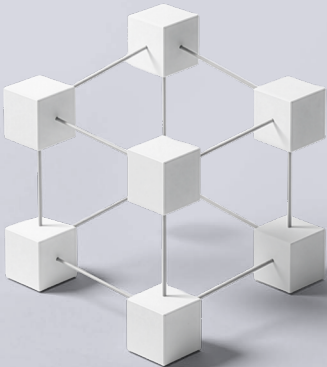
Utilities can combine legacy assets with new technology, reduce vendor dependence, and future–proof their digital infrastructure with minimal integration effort.

Network management and **early fault detection.**

Thaora Distribution Intelligence reduces downtime and operating costs by enabling **continuous visibility and smart fault response.**

Operators gain live network views, alarms, and trend analytics through intuitive dashboards shifting from reactive troubleshooting to proactive decision–making that increases reliability and extends asset lifespan.

Electrical and environmental data are collected and correlated across LV networks and secondary substations to provide a complete picture of MV/LV network health.
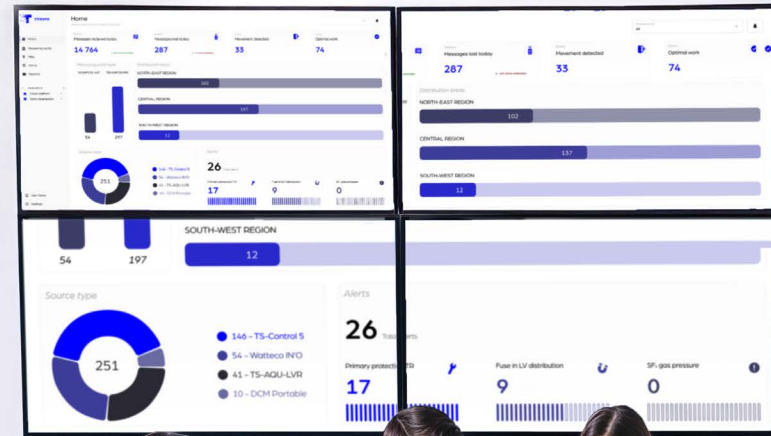
AI/ML analytics identify faults early and locate them precisely, enabling faster intervention and fewer emergency callouts.

User–friendly
by default.

Designed for clarity and speed, the platform provides intuitive web and mobile dashboards that deliver instant insight into key metrics and events.

Teams can monitor performance, manage alarms, and access detailed reports and analytics from one place.

With a user–centric interface, onboarding and training time is significantly reduced, resulting in smoother operations, higher productivity, and faster adoption across all roles.
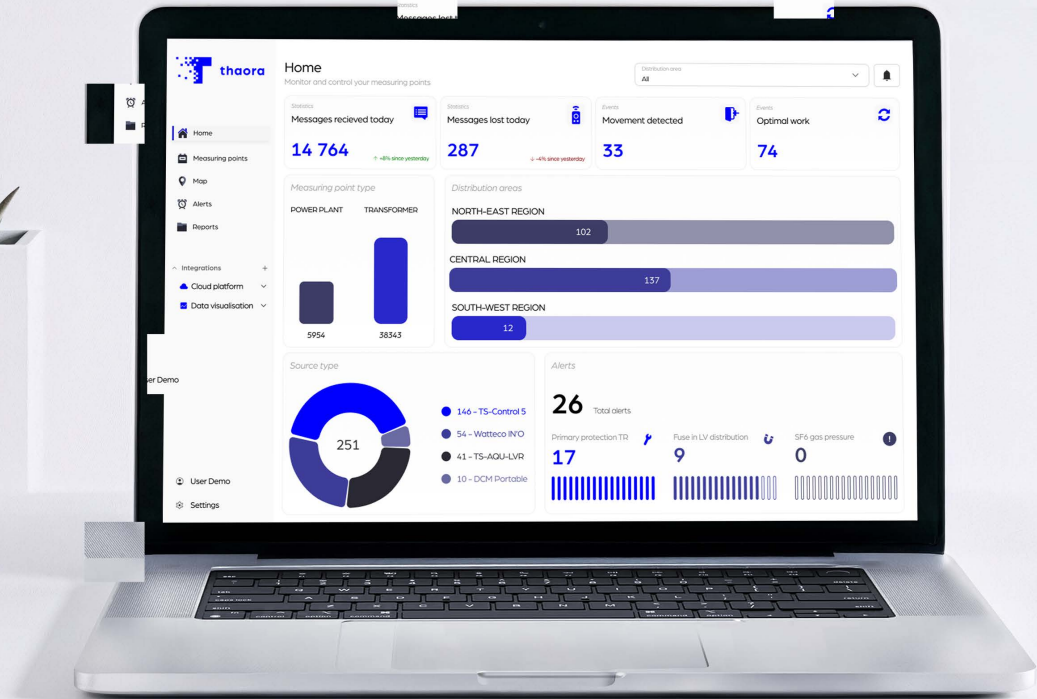
Flexible deployment without disruption.

Thaora Distribution Intelligence is a cloud-native platform that supports deployment on-premises or across **AWS, Google Cloud, and Microsoft Azure.**

This hybrid model ensures scalability, cybersecurity compliance, and alignment with operator IT strategies, while **preserving full data sovereignty.**

Utilities can modernize operations without disruptive system replacements, scaling at their own pace while improving resilience, regulatory compliance, reporting capability, and return on investment.

Full visibility. Zero surprises.

RELIABILITY
BY DESIGN.

See ahead. Reach out.

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