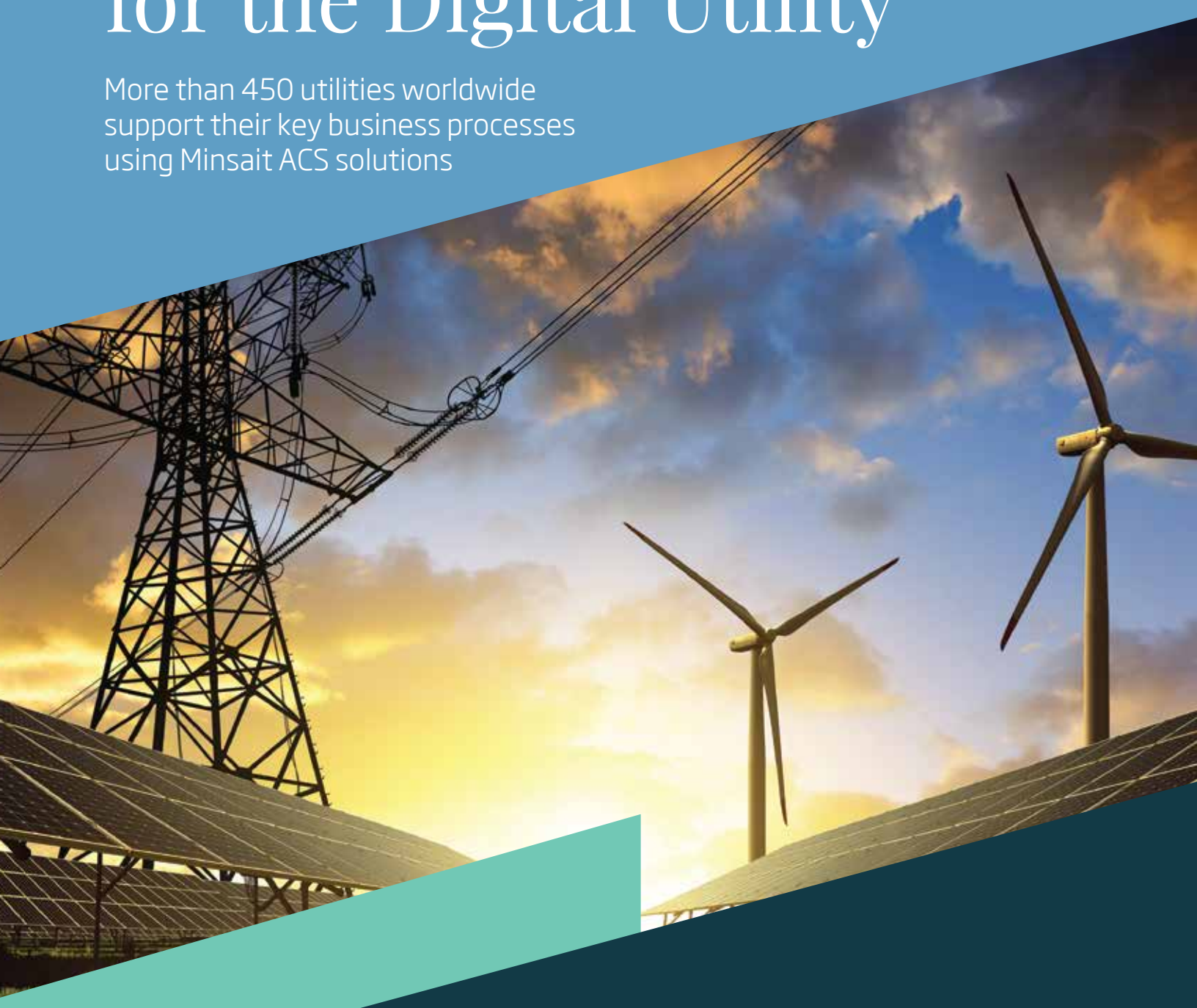


onesait
ilities

Smart Solutions for the Digital Utility

More than 450 utilities worldwide
support their key business processes
using Minsait ACS solutions



minsait ACS

An Indra company

Onesait, opening new ways, today and tomorrow

Making a difference through solutions
that enable digital transformation



Anticipate and manage the rapid changes in your environment through our ecosystem of digital solutions, based on extensive industry experience, technical know-how and understanding the changing utility landscape



We accelerate the transformation of your business through our solutions

Navigate the transformation with flexibility. Our solutions support you from proof of concept through deployment so you can focus on the performance of your business, without distractions and from a position of strength.



We undertake a vision of the future for your business

Because having a clear goal matters, we focus on the customer when designing our solutions, with a future vision of your industry aligned with the evolution of technology.



We are leaders in cutting-edge technologies

Integrate the latest technologies into your business at the rate you need, confident that your approach to transformation has a solid foundation and is focused on your goals.



We innovate in an open ecosystem

We are stronger when we work together. Our solutions encourage community-based innovation and we promote secure and open digital ecosystems.

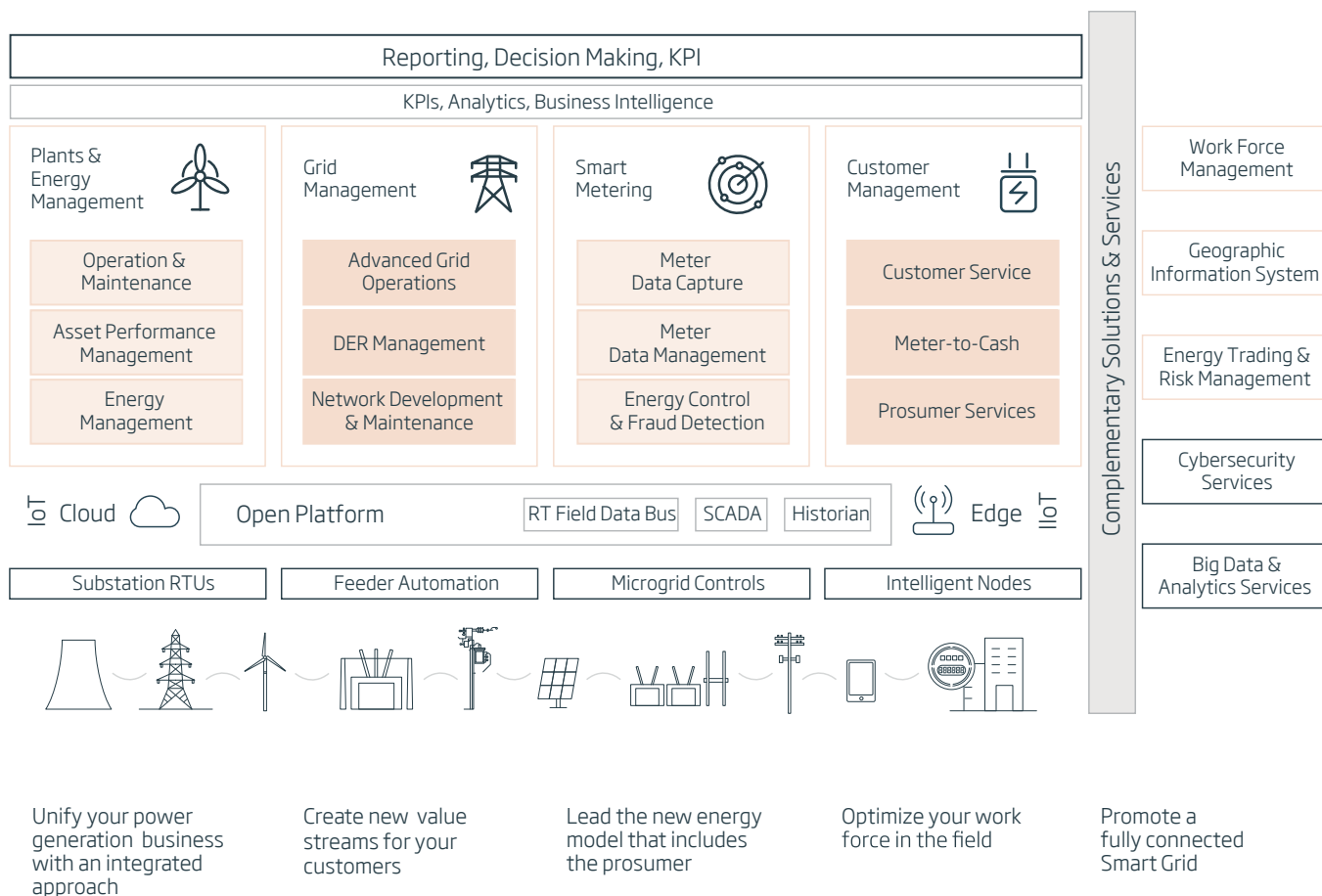
Supporting the digital transformation of utilities during the energy transition, while promoting a customer-centric business model

At Minsait ACS, we leave our mark through solutions and services that support the entire energy value chain, from the intelligent management of plants and networks, to the commercialization of energy, water and value-added services.

Our value proposition is based on innovation and a profound knowledge of the business processes and challenges of the utility industry.

<p>+450 utility companies worldwide use our solutions</p>	<p>+700 power stations managed with our Plant Management Solutions</p>	<p>+340 utilities use our Grid Management Solutions</p>	<p>+100M customers managed by our Commercial System</p>
<p>onesait utilities Generating impact through a solution suite that supports all business processes of electric, gas & water utilities.</p>			

Onesait Utilities is the most complete end-to-end solution suite for utilities

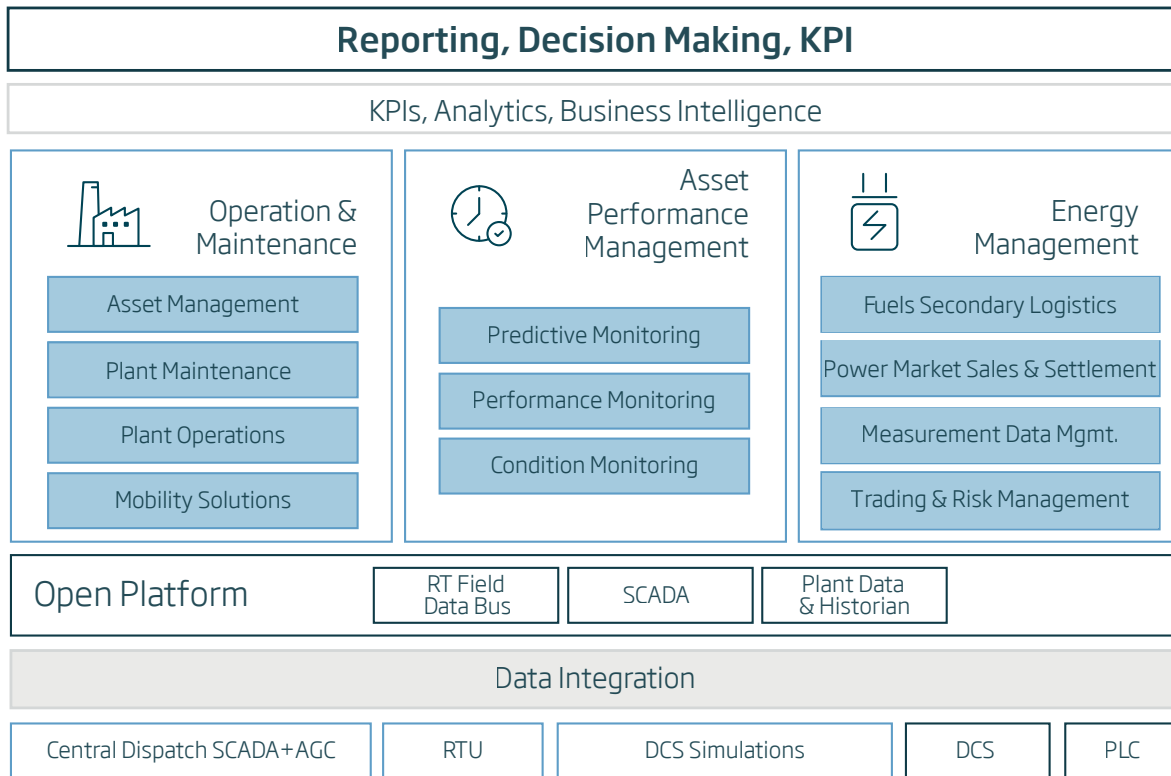




Onesait Plants and Onesait Markets integrate, in a common and unified vision, the entire plants and energy management business, from plant operation & maintenance to portfolio management and participation in wholesale energy markets.

This integrated view of energy management is based on more than 20 years of experience with implementations worldwide, managing all types of plants (power generation, water, gas, industrial) and operating within different types of energy markets:

- Real-time connectivity: Robust connectivity with process variables using SCADA and IoT technologies
- Analytical capability: Allows for granular data analysis (by plant / client with sub-hourly detail) to aggregated data analysis (region / company and monthly / yearly breakdown)
- Modularity and scalability: The modularity of the solution architecture allows easy expansion of functionality and number of assets



Operations & Maintenance is a modular and integrated solution that supports plant operations, maintenance and environmental processes

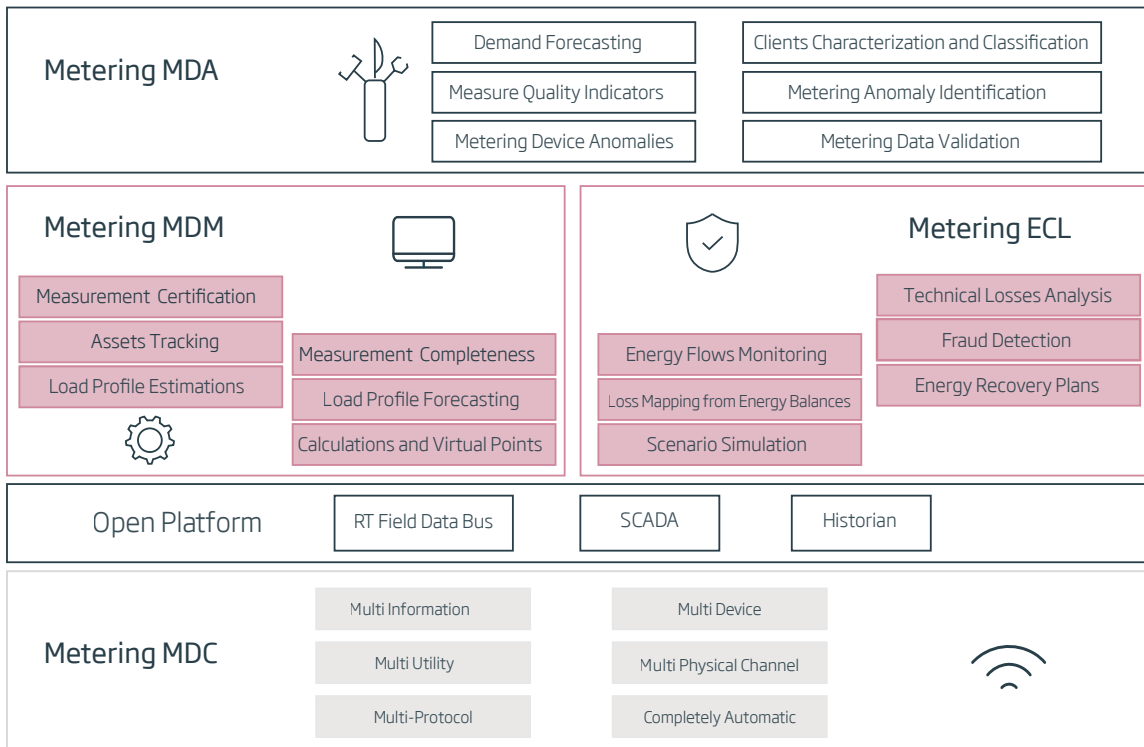
APM (Asset Performance Management) is a solution that monitors asset performance in real-time, optimizing industrial plants operation and maintenance activities

Markets is a comprehensive solution that enables energy companies to optimize business operations in physical markets

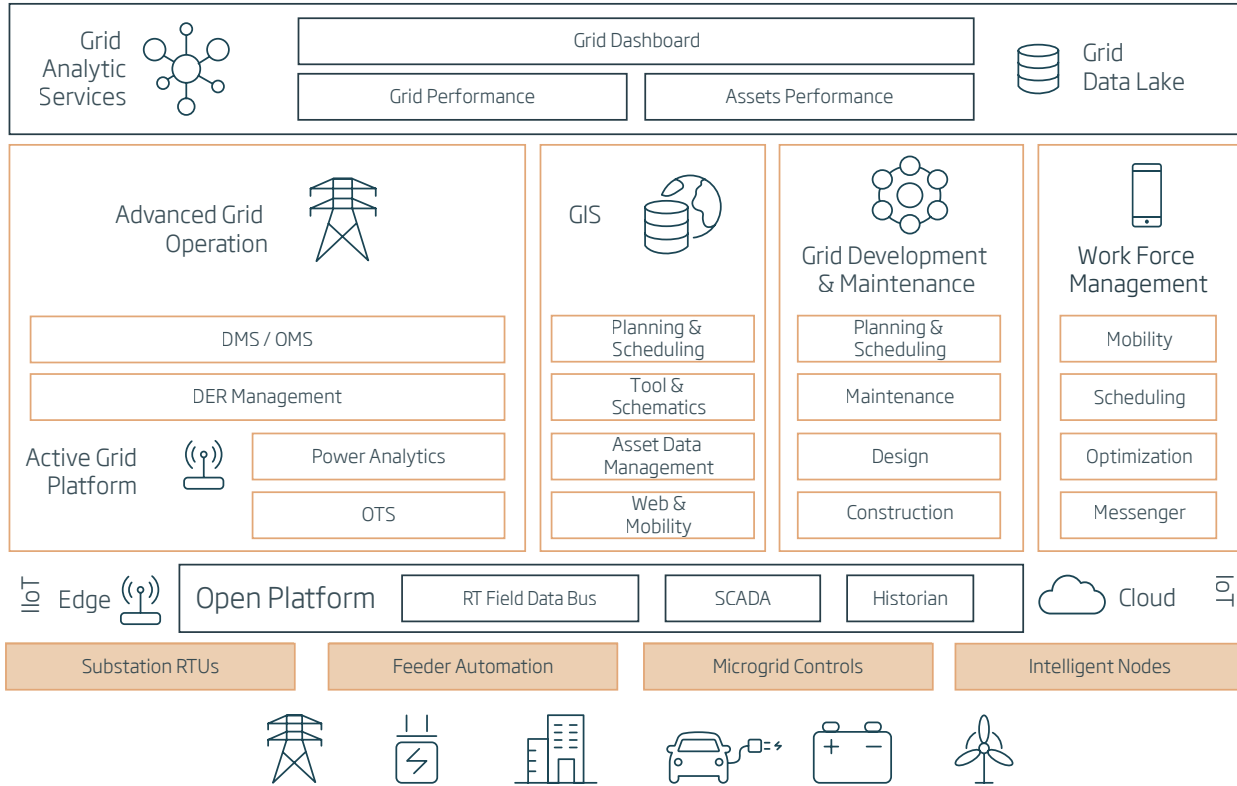
- Energy planning platform (Planner)
- Contract Management & Settlement (SET)
- End-to-end Meter Data Capture (MDC) and Meter Data Management (MDM)

Onesait Metering is Minsait ACS's multi-utility solution for automatic acquisition, management, certification and exchange of information coming from meters. It also supports analysis and decision making based on big data technologies, including advanced functions like demand forecasting, customer behavior or asset tracking.

- **Meter Data Capture (MDC)** is the solution for the acquisition of data measurements (electric, gas or water) independently of the meter type or brand
- **Meter Data Management (MDM)** supports VEE (validation, estimation and editing), certification and exchange of information coming from electric, gas or water meters
- **Meter Data Analytics (MDA)** is an analytics platform oriented to the massive analysis of meter data, including advanced functions like forecasting and fraud detection
- **Energy Control and Losses (ECL)** allows a comprehensive control of flows across the distribution network, identifying losses (both technical and commercial) and supporting revenue assurance



Onesait Grid is a comprehensive modular solution that fully supports transmission and distribution business processes. This includes the planning, development and maintenance of assets, as well as the forecasted and real-time operation of complex grids with Distributed Energy Resources (DERs).



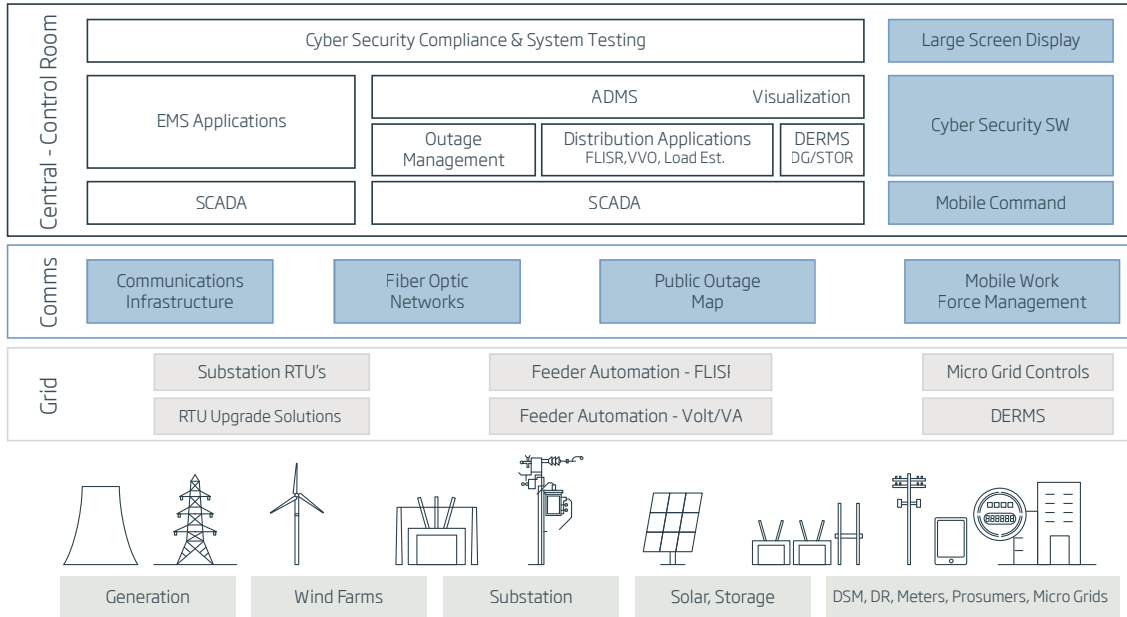
End-to-end distribution and transmission grid management

- Supports the entire grid management cycle including grid asset inventory and maintenance, grid planning and design, real-time operation, crew management and grid analytics
- Geo-referenced : All modules are supported by GIS advanced functionality
- Modular and Interoperable: Standards-based interoperability, enabling seamless integration with existing assets and systems
- Advanced real-time analytics automating and supporting complex operation
- Complete SCADA and grid automation solution, including RTUs and control systems

Next generation grid management solution for Smart Grids and the integration of Distributed Energy Resources (DERs)

- Industrial IoT that enables a scalable, secure and reliable coordination of millions of devices (i.e. DERs) in the field
- Edge Intelligence - Novel hardware and software platform with Edge devices enabling distributed data processing and analytics, reacting to changes in environmental conditions
- Real-Time Integration Bus supporting a common data space where information can be exchanged securely and efficiently between field devices, systems and operators in a coordinated fashion
- Real-Time and Big Data Analytics, allowing advanced grid analysis and control

Minsait ACS designs, develops, and supports solutions to solve some of the electric utility industry's most difficult challenges. Minsait ACS supplies utility systems throughout the world with SCADA and many other advanced applications in a scalable platform that support both centralized and distributed architectures that optimize automation in the control room, at the substation, and the edge of the grid. Minsait ACS also supplies one of the most comprehensive lines of intelligent substation controllers and remote terminal units (RTUs) in the industry.



#PRISM

PRISM is a suite of real-time applications that optimize smart grid operations and provide utilities greater insight into their grids

#CENTRIX

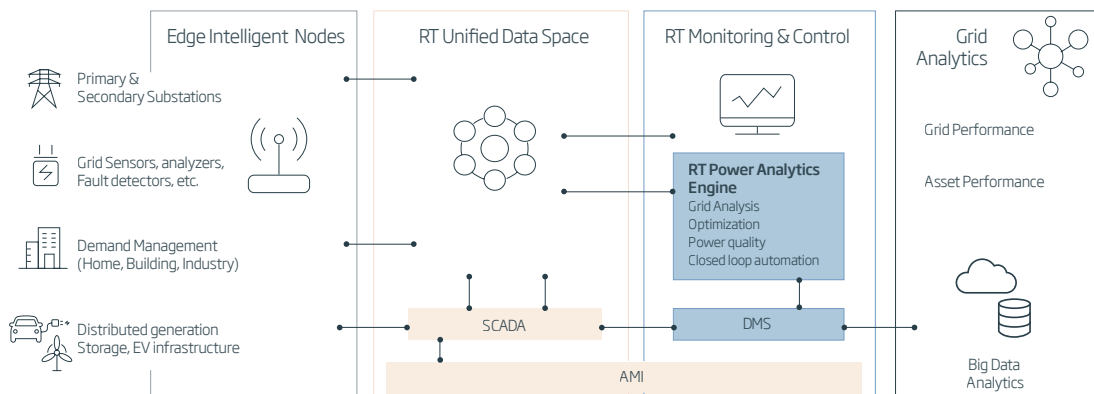
Centrix is a suite of applications enabling distributed control, automation, and intelligence, that easily integrates into legacy systems

#NTX

NTX is our product line of the most sophisticated Remote Terminal Units (RTUs) in the industry, applied at the substation and downstream devices

Active Grid Management

- Onesait Grid AGM is an industrial IoT software platform that monitors and manages power networks using distributed control
- Real-time data is processed and distributed across a publish/subscribe interoperability data bus, openly available to 3rd parties (iSpeed)
- Improves feeder power quality, while maximizing renewables and DER utilization for grid asset optimization
- Incremental and seamless evolution with our distributed architecture and open data integration with third-party systems




With more than 30 years of proven expertise, and more than 90 implementations, Onesait Customers manages the commercial processes of utilities in regulated and competitive markets, supporting electric, gas and water utilities. It includes customer relationship functionality and fully supports the meter-to-cash cycle including the management of prosumer services.


Onesait Customers is an integrated, modular solution designed to support customer management, meter reading, invoicing and collection for utilities across multiple commodities (electric, gas, water). It also incorporates a strong intelligent data layer that supports the analysis of information from commercial processes and customers.



Its highly configurable functional architecture has been designed to meet the requirements of a dynamic market in constant evolution.

Leveraging new technologies to expand service channels and evolving to a digital relationship with the customer




Contact Channels Self-Service Vending Social Media



<p>Multi-utility and VAP/S in regular and open markets</p> <p>End-to-end Workflow Business Processes</p> <p>Robust and well proven billing engine</p>	<p>Commercial Services</p> 	<p>Technical Services</p> 	<p>Automatic resource allocation</p> <p>Work optimization (geolocation)</p> <p>Crew, Works and Materials traceability</p> <p>Fully integrated with the whole stack</p>										
	<table border="1"> <tr><td>Customer Service</td><td>Receivables</td></tr> <tr><td>Enrollment</td><td>Debt Mgmt.</td></tr> <tr><td>Billing</td><td>Accounting</td></tr> </table>	Customer Service		Receivables	Enrollment	Debt Mgmt.	Billing	Accounting	<table border="1"> <tr><td>Work Request</td><td>Work Orders</td></tr> <tr><td>Devices</td><td>Campaigns</td></tr> <tr><td>Readings</td><td>Frauds</td></tr> </table>	Work Request	Work Orders	Devices	Campaigns
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Enrollment	Debt Mgmt.												
Billing	Accounting												
Work Request	Work Orders												
Devices	Campaigns												
Readings	Frauds												

Online/Offline apps for Reading, Onesait billing and Work Orders resolution



Reading App Billing on Site App Work-Orders App

Advanced platform to connect with everything

Integrated Operational Reporting and Analytics

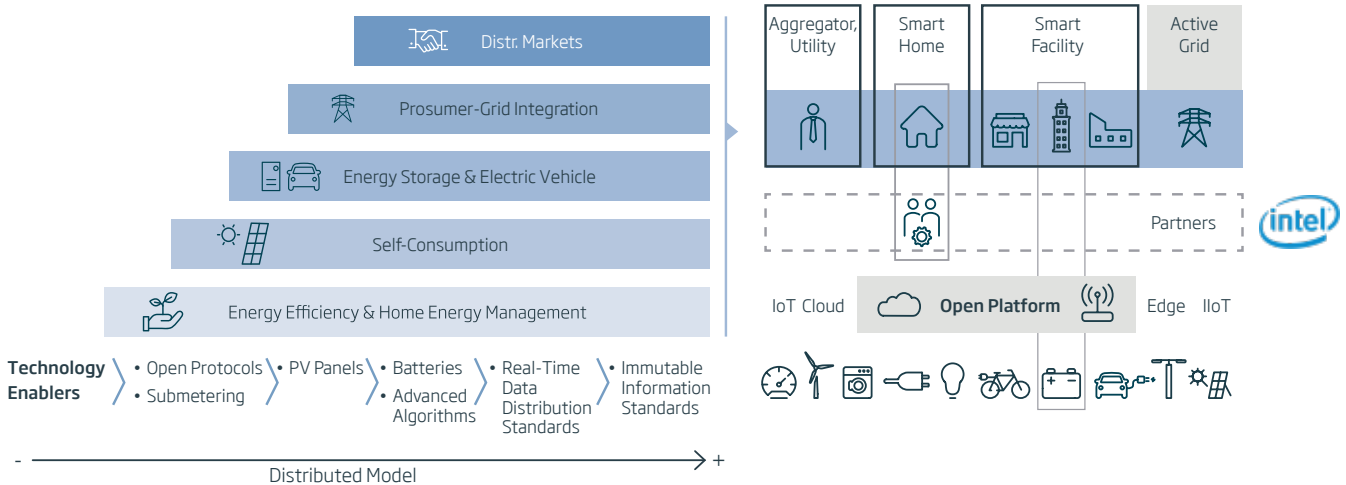


Framework Analytics Operational Reporting Integration Services




Enabling Transactive Services by Integrating Prosumers with the Grid

Onesait Prosumers is Minsait ACS's energy management solution for leveraging both behind-the-meter and front-of-the-meter DERs in one platform, to forecast, schedule and dispatch, and provide the utility total demand flexibility. Customers can greatly increase their value with the grid and adopt multiple roles in the energy value chain.



The energy supply chain is migrating to a new distributed model in which stakeholders will dynamically exchange energy and services, for maximum global efficiency. This change is encouraged by technology enablers and social awareness about sustainability. New roles and opportunities arise from customer integration with the grid.

Demand-side stakeholders need to leverage unified horizontal platforms that seamlessly operate in real-time with active grid ecosystems. Vertical integration of niche algorithms and high value energy assets are provided by specialized vendors.

Onesait Prosumers is built on the Minsait ACS open platform which uses a container-based architecture for modularity and scalability and allows our partners to integrate their own cloud or edge solutions. This architecture, developed in partnership with Intel, enables:

- E2E coverage for the distributed energy model
- Prosumer services and Active Grid services integration
- 'Behind-the-meter' and Aggregated Energy Management
- Smart Home & Smart Facility progressive functional paths
- Multi-protocol last mile connectivity
- Go-To-Market acceleration through a partner ecosystem approach
- Scalable solutions that allow our clients to embrace new distributed energy business models and paradigms

In addition to the 'state-of-the-art' energy efficiency business capabilities, the Prosumers efficiency modules seamlessly integrates consumption at the substation level with the utility's use cases, turning facilities into Distributed Energy Resources with the ability to shift from local to global efficiency.

- Capture energy savings
- Multi-site real-time monitoring of disaggregated consumption and asset conditions
- Global KPI visualization and customized analytic dashboards
- Real-time control, assuring savings through automated processes
- Traceability and verification of customized ECM's impact
- Energy certification support for ISO-50001





In addition to providing a PV adoption channel for customers, and a marketplace to monetize it, the Prosumers Self-Consumption module works on an hourly basis allowing the simulation of the surplus of generation for the use cases of Energy Storage and Net Metering.

- Accurate PV simulation from Smart Meter data, optimizing installation for customer preferred measure (return of investment, production potential, etc.)
- Customer facilities simulation repository, with periodic updates triggered by market or regulatory changes
- Marketplace for customers, PV installers and credit entities
- Customer management back office, providing 'willingness-to-adopt' ratings, and 'simulation-to-lead' tracking
- Seamless integration with Efficiency module for integrated consumption and generation monitoring

In addition to enabling the reduction or delay of hefty investments in utilities grid infrastructure, the Prosumers Demand Response module opens a customer engagement channel for new energy services, such as home energy management and additional home automation use cases.

- Enrollment and device management (including BYOT)
- DR service management, setting features and economic parameters
- DR needs planning, through advanced forecasting algorithms
- Ranking of different Distributed Energy Resources (DERs) alternative scenarios to meet DR needs
- Operational tracking
- Seamless integration with efficiency and homes modules for a unified management experience

Besides making homes more efficient and connecting the long tail demand for aggregated value propositions, Prosumers Homes module offers end-users a unique energy, comfort and safety management experience, while establishing a limitless ecosystem for home-service providers' solutions.

- Consumption and power monitoring and control, through both smart meter integration and submetering devices
- Consumption and power alerts: Objectives management, defined in terms of energy and budget
- Integration with energy storage devices and EV chargers
- Energy disaggregation, through both submetering devices and third-party algorithms
- Multi-device programming and scene configuration
- Seamless integration with self-consumption and Demand Response (DR) modules for a unified home management experience



Onesait Utilities is being used in more than 450 Utilities worldwide



Americas

Petrobras (Brazil)
 Elektro (Brazil)
 OSE (Uruguay)
 UTE (Uruguay)
 Sabesp (Brazil)
 A. de Hermosillo (Mexico)
 A. de Monterrey (Mexico)
 Disnorte-Dissur (Nicaragua)
 Edemet-Edechi (Nicaragua)
 Electricaribe (Colombia)
 Eletrobras (Brazil)
 Energisa (Brazil)
 Edesal (Argentina)
 EPSA (Colombia)
 DelSur (El Salvador)
 Energuate (Guatemala)
 Eletrobras (Brazil)
 Luz del Sur (Peru)
 EDP (Brazil)
 CGE (Chile)
 Petrobras (Brazil)
 AyA (Costa Rica)
 Avangrid (USA)
 AyA (Costa Rica)
 Aysa (Argentina)

Edelap (Argentina)
 Sedapal (Peru)
 ElectroDunas (Peru)
 Light (Brazil)
 Edesur (Dom. Republic)
 Edenorte (Dom. Republic)
 Edeeste (Dom. Republic)
 EDEN/EDES (Argentina)
 Edesal (Argentina)
 Enersa (Argentina)
 Ande (Paraguay)
 Georgia Power (USA)
 Avista (USA)
 Lansing Board of Water & Light (USA)
 Dominion Energy (USA)
 DTE Energy (USA)
 SDG&E (USA)
 City of Anaheim (USA)

Europe

Naturgy (Spain / LATAM)
 Enel (Italy / Spain / LATAM)
 Viesgo (Spain)
 Iberdrola (Spain / UK / USA)
 REE (Spain)
 ACEA (Italy)
 EDP (Portugal)
 Canal Isabel II (Spain)
 SSE (Slovakia)
 CEZ (Czech Republic/
 Romania)
 Red Chisinau, Centru, Sud
 (Moldova)
 Electrica (Romania)
 REPSOL (Spain/USA/Global)
 ENEA (Poland)
 NEK EAD (Bulgaria)
 SEPS (Slovakia)
 OTE (Czech Republic)
 Engie (France)
 AXPO (Spain)
 Acciona (Spain)
 Enagas (Spain)
 A2A (Italy)
 HERA (Italy)

Africa

Enersa (Argelia)
 KPLC (Kenya)
 ENEO (Cameroon)
 EEPKO (Ethiopia)
 KENGEN (Kenya)
 UMEME (Uganda)
 ZESCO (Zambia)
 ZETDC (Zimbabwe)
 GECOL (Libya)
 ESCOM (Malawi)
 EDM (Mozambique)
 ECG (Ghana)
 KETRACO (Kenya)
 EDL (Liberia)
 SEGESA (Eq. Guinea)
 AEDC (Nigeria)
 SEGAS (Egypt)
 ETEKWINI (South Africa)

Asia & Oceania

Meralco (Philippines)
 Maynilad (Philippines)
 Manila Water (Philippines)
 EWA (Bahrain)
 Origin (Australia)
 FirstGen (Philippines)
 PLN (Indonesia)
 RAWEC (Saudi Arabia)
 KRG (Kurdistan)
 HydroTasmania (Australia)
 BESCO (India)
 TPC (Taiwan)
 JEPC (Jordania)
 Monash (Australia)
 SEDAS (Turkey)
 EVN (Vietnam)
 RAWEC (Saudi Arabia)

**More than 100 million
 Customers** managed by
 Minsait ACS commercial systems

**More than 700 Generation
 Plants** are managed with
 Minsait ACS solutions

More than 340 utilities use
 Minsait ACS Grid Solutions for
 Grid or Metering Management

onesait
utilities

Smart Solutions for the Digital Utility

Advanced Control Systems, Inc.
2755 Northwoods Parkway
Peachtree Corners, GA 30071

www.acspower.com
www.minsait.com

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