



Revolutionising power grid management



Who are we?

SMPnet provides cutting-edge power grid management solutions based on highly advanced technical expertise. Complementary and accessible, our Omega suite of products offers seamless integration with existing network systems and is designed with precision focus on power grid optimisation. We understand that utilities are looking to the future and with that knowledge, have developed products to increase network capacity, reduce costs and allow integration of more renewable energy assets.

Through the design and application of our technology, SMPnet is kickstarting a revolution to transform power grid management.

Mission

We seek to catalyse the global energy transition and grid digitalisation by deploying our highly advanced software technology, Omega. We have harnessed years of research and technical expertise into a suite of products that are shaping a future of clean energy integration and efficient grid management. Our mission is to continue to develop and provide utilities with the tools to transform their power grid operations through analytics, advanced optimisation, and real-time control. We create advanced software technology to transform operations for a stronger, greener energy future.



A suite of products designed to transform power grid management at any voltage level.

We have developed leading edge power grid management software to revolutionise the energy industry. The Omega suite of products integrates with existing systems to unlock grid capacity, integration of 100% renewable assets and significant cost reductions. From fully digitised, daily reporting to complex millisecond control, each product within the Omega suite offers utilities a new level of insight and confidence to operate their systems in a net zero world.



Defer network reinforcements

Omega helps utilities maximise asset utilisation by intelligently managing existing resources, delaying the need for costly grid reinforcements.



Enhanced network availability

Omega offers better visibility and control over network assets, enabling utilities to prevent overloads and ensure higher network availability and reliability.



Seamless integration

Omega is technology-agnostic, enabling seamless integration with all vendors and technologies, using a digital interface compatible with legacy systems and no need for additional equipment. By leveraging utilities API connections and all communications protocols and standards, Omega allows network management to the asset level.

Omega: An advanced, holistic approach

Each product within the Omega suite can be operated as a standalone solution to the needs of grid operators within networks of any voltage level. In combination they offer an innovative, holistic package designed to address the full spectrum of grid operation challenges, from enhancing operational efficiency, security and reliability to integrating renewable energy sources.

Data Analytics for grids at any voltage level

Gain comprehensive insights into your grid performance with advanced analytics such as substation headroom, CO2 projections, and renewables projections.

Aware is a reporting and data visualisation software tool which sits in the cloud or the edge and creates highly customisable, real-time monitoring dashboards and automated reports, alarms and notifications. Offering data analytics, Aware complements existing systems by streamlining data from across the grid, at any voltage level and from any platforms that integrate various data sources (e.g., SCADA, ADMS, etc.).

Widen your visibility across the network allowing:

- Automated reports: Generated daily or as needed, these would cover substation activities, distribution grid performance, voltage profiles, power profiles of assets, and the status of Intelligent Electronic Devices (IEDs).
- Real-time grid monitoring dashboards: Visual interfaces showing live data about the grid status, activities, and performance metrics.
- Data Analytics Insights: Extracted patterns, trends, or anomalies from the operational data to help in decision-making.



Seamlessly integrate data streams, streamline operations, and achieve sustainability targets accurately.



TECHNOLOGY FEATURE

Digital Twin at any voltage level

Make informed decisions with predictive insights. Quantify DER impact, identify anomalies, and seamlessly integrate real-time changes.

Clone is a digital twin technology that replicates your existing grid and allows you to run hypothetical, what-if, scenario testing on real time data, without affecting the physical network.

Running the Clone system provides insights into network losses and stability at any voltage level. You can make informed decisions and predictive actions based on real time.

- **Digital twin network model:** A virtual replica of the real-world grid that can be used for various simulations and analyses.
- **Scenario analysis reports:** Results from executing hypothetical scenarios on the digital twin, giving insights into potential outcomes without affecting the actual network.
- **System insights extracts:** Detailed analyses like network losses, system stability and anomalies derived from the digital twin.

Vendor and technology agnostic, Clone will take your grid closer to digitalisation quickly and effectively.





TECHNOLOGY FEATURE

Adaptive optimisation for grids at any voltage level

Minimises costs and maximises efficiency by optimising DERs, meeting diverse grid demands, and managing voltage levels.

Optisys is a highly adaptive software engineered to optimise grids and give utilities the tools to make data-driven decisions for an efficient, reliable, and secure power grid.

With a powerful ability to adapt to the conditions of the grid, at any voltage level, the benefits of Optisys for grid management include:

- Defer CAPEX by maximising the use of the current grid infrastructure.
- Enhance grid stability and scalability to evolving grid requirements.
- Reduce OPEX via network loss minimisation and augmented efficiencies.
- Guarantee uninterrupted system operation.
- Meet regulatory compliance.
- Allow for maximum renewables penetration & real-time decision making.



When it comes to network operation, Optisys gives you the power to keep energy flowing and the lights on, no matter the grid conditions and constraints.



TECHNOLOGY FEATURE

Real-time control, whatever your grid voltage level

Achieve unparalleled control over your power grid with applications like island re-synchronisation, coordinated voltage/ frequency control, and wide area control.

Control takes the concept of power grid management to the millisecond and offers the most advanced real-time edge software for time-critical applications.

Using Control and its unique ability to control grids of any voltage level, allows dynamic, responsive engagement with the grid and gives you:

- Enhanced resilience through avoidance of shutdown methods.
- Cost-efficiency via renewable energy sources.
- Remote operation reduces the need for onsite personnel.
- Millisecond precision in controlling renewables, replacing standard generators.
- Cleaner operation by reducing reliance on fossil fuel generators.
- Multi-vendor compatibility with equipment from various manufacturers (technology-agnostic).

A truly real-time control system for dynamic grid management, Control will ensure stability and optimal performance in the net zero future.



Vision

Our vision is to be the trusted partner for utility companies in advanced power grid management. Through cutting-edge software, we provide unparalleled analytics, optimisation, and real-time control. Together, we shape a future of sustainable energy integration and efficient grid management, revolutionising the industry for a sustainable planet.

“SMPnet have successfully utilised Omega technology to address network distribution challenges, including power island re-synchronisation. Excited about its potential, we look forward to further collaboration to overcome various challenges across our business units.”





Take the first step towards
a smarter energy future

✉ info@smpnet.tech

🌐 smpnet.tech