autsoft
a zenitech company

Energy

Sagemcom: creating an efficient energy network

Sagemcom: creating an efficient energy network

With its experience in telecommunications and energy management that stretches back more than 25 years, Sagemcom naturally stands out as a leading player in management solutions for energy and water that actively contribute to the more rational use of energy.

Sagemcom's Energy & Telecom subsidiary proposes end-to-end solutions for energy and water management, the electrification of isolated sites and grid control.

Sagemcom offers multi-energy and end-to-end solutions to manage energy and control its consumption throughout the network. From the meter to the associated software solutions, Sagemcom puts all its know-how as a designer, integrator and manufacturer at the service of energy management.

A rapidly changing sector

Sagemcom Hungary works closely with energy sector clients, providing electricity meters for energy suppliers across the Central and Eastern European markets.

The energy sector is changing rapidly. With the rise of smart meters and connected devices in our homes, electricity providers are finding that they have increasing amounts of data to process and analyse, in order to manage their networks effectively.

Customers expect more personalised energy packages from their providers and increasingly accurate energy consumption predictions. With Europe's current energy and cost of living crisis, customers are also looking for help tracking use, and reducing their electricity consumption.

Customer data can also be used to help suppliers in areas like load management and energy routing to keep service disruption to a minimum.
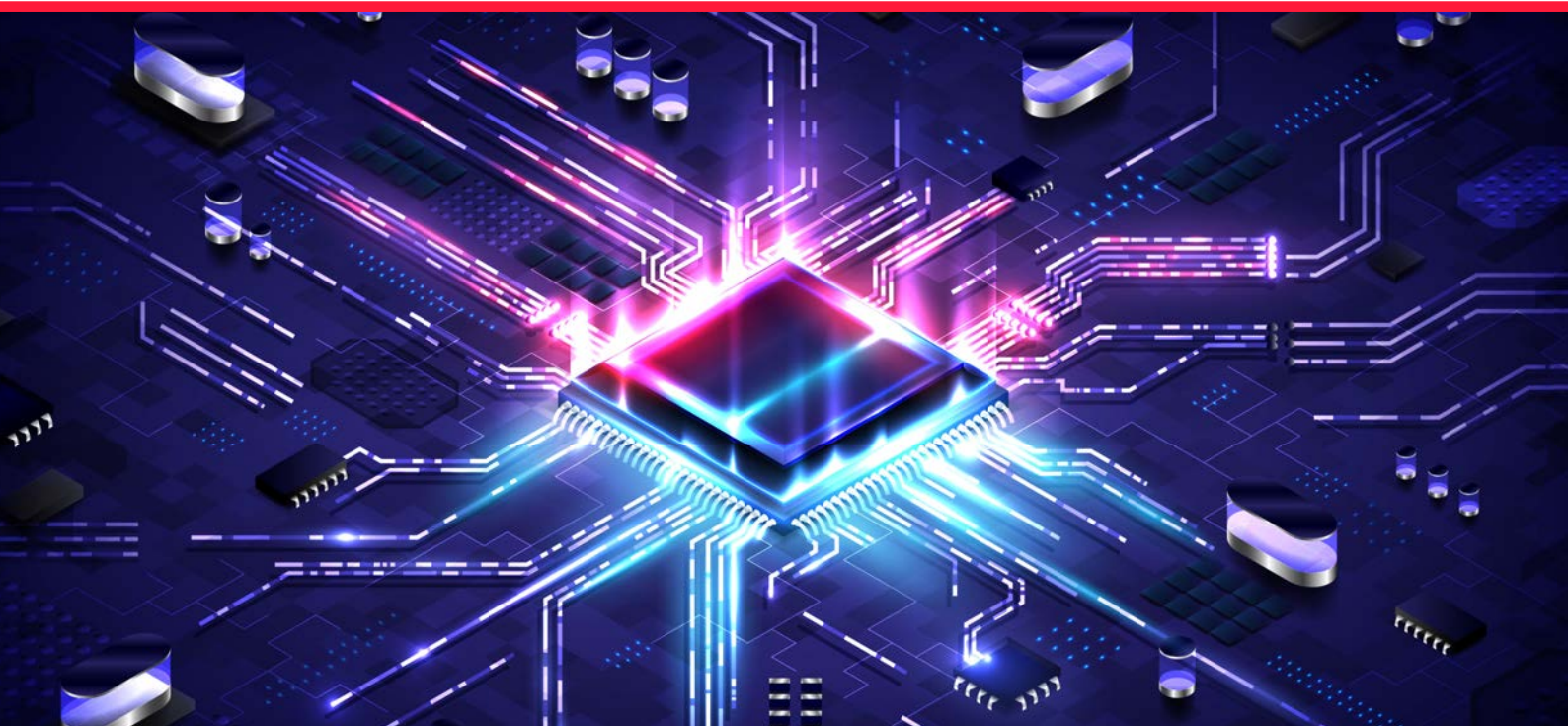
Energy efficiency comes from adequate data analysis

To benefit from all of this data-driven insight, providers need the technology to access and analyse customer data.

AutSoft worked with Sagemcom to design and develop a solution to acquire, process and gain insights from its data, using its existing technology infrastructure.

For example, we created a data insights platform for one of Sagecom's clients, an international electricity supplier, which collects real-time data from Sagemcom's smart meters, allowing the provider to create data overlays on maps of highly populated regions. This means the provider can detect faults or fraud, and predict maintenance and supply needs, as well as spotting which areas generate high levels of electricity (such as a dense area of homes with solar panels) and which have unusually high demand (such as an area with many electric vehicle owners).


We created a portal for Sagemcom Hungary that it can access 24/7, including features like intelligent data collection, real-time data processing and portal development for managing data flows.

We also implemented a heavy monitoring solution that automatically scales with demand to keep system performance consistently high, and we used machine learning and AI algorithms to help Sagemcom Hungary detect attempted fraud and any anomalies on the network. Zenitech managed the entire project using agile methodology, giving frequent demos and implementing feedback throughout the development process.

Reaping the benefits of intelligent grid management

Sagemcom Hungary now has a smart metering system with a modern software suite designed for intelligent grid management.

It is able to fully optimise its energy network by detecting faults and anomalies early, plan the expansion of its network, detect and predict network maintenance needs, and predict and prepare for future network requirements.
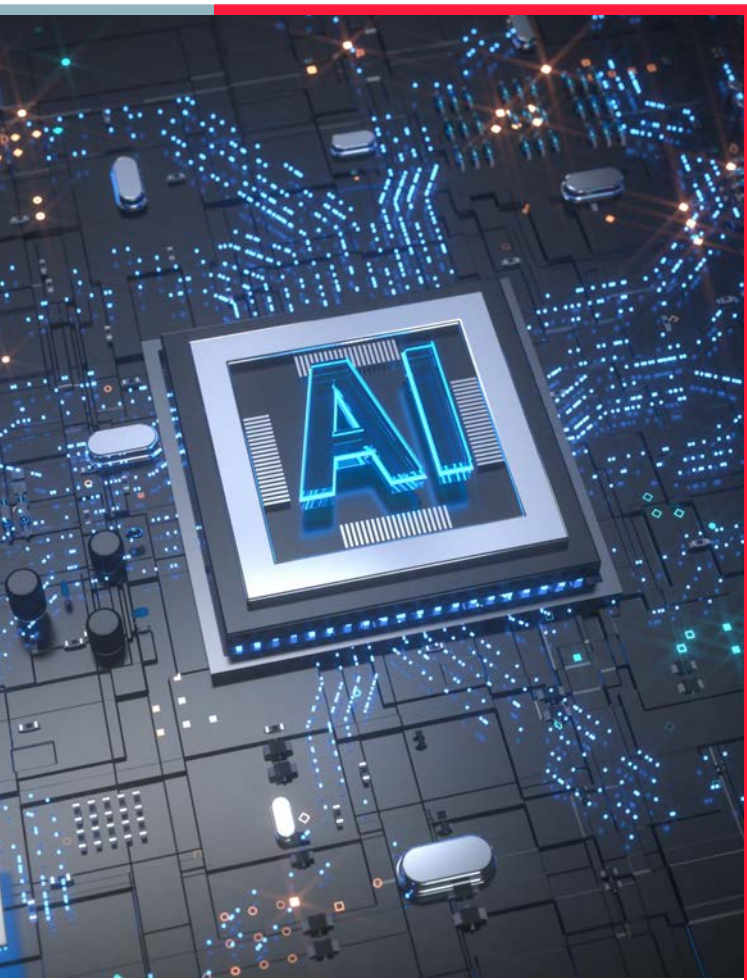
Technological focus

The major modules that were implemented are:

- *network outage management module,*

- *transformator-load management module,*

- *network management module,*

- *monitoring components.*

During the project highly skilled engineers and PhD researchers were also involved in the complex algorithm development that include:

- *fraud detection (Illegal use of network, anomalies in energy usage that can be dangerous for the network),*

- *energy consumption and production predictions,*

- *intelligent consumer classification,*

- *intelligent load management and energy routing,*

- *detection of extra usage (e.g., increased charging of electric cars),*

- *detection of extra energy production (increased number of solar panel production in the same area).*

autsoft
a zenitech company