



EnOcean

Self-powered IoT

SYSO Technologies maximizes ROI with green energy platform

EnOcean's SmartServer™
IoT is the heart of
data-driven solution

01 The Challenge

Green energy installations can be simple enough. You may have solar panels on the roof of your home and, if you're signed up to a subsidy scheme, you just receive your payments in line with a pre-agreed schedule, perhaps from your utility provider, or from a government department.

Commercial operations are different. An investor may own a range of assets including solar installations, wind turbine farms, battery storage systems, and even hydro, tidal, geothermal, or biomass energy generators. What happens to that energy is

different too. It's mainly sold to utility companies – electricity providers – in a dynamic market where prices fluctuate not just weekly or daily but by the second.

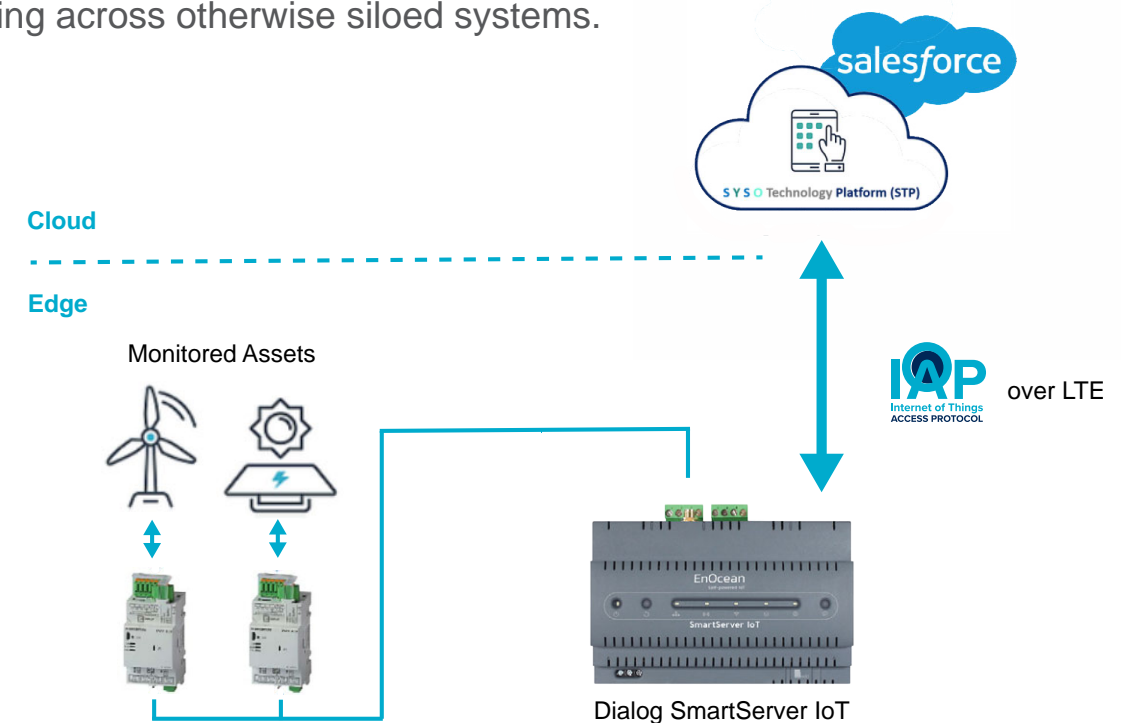
To maximize the returns from green energy assets, you need to monitor and control those assets in order to sell their output at the most beneficial time. If the assets include battery storage installations, knowing when to store electricity and when to sell it can have a significant impact on your returns.



Being able to predict the weather is another central factor in forecasting electricity demand. Demand forecasting creates a need for timely data, presented in a user-friendly way that makes it easy to interpret and act upon. Clearly, storage units need active management if they are to perform at their best.

02 The Solution

Energy-related assets are locally connected to SmartServer™ IoT Edge Servers, with monitoring and control data transmitted and received using the industry-standard Modbus RTU protocol. The edge servers are then connected via a secure LTE cellular radio modem to the SYSO Technology Platform (STP), an energy management platform, running on a SYSO Technology Server (STS) in the cloud. The LTE network connection utilizes the IoT Access Protocol™ (IAP), an API that bridges commercial and industrial networking protocols to allow seamless data access and processing across otherwise siloed systems.



Data from the STP is sent to a Salesforce platform, utilizing the latter's analysis and display capabilities to present accurate, actionable information derived from the raw data to SYSO's network operations center and to its clients. Users can view one asset in detail or see an overview of their entire portfolio. Insights from the STP, where demand, pricing and forecasting data are aggregated, are used to optimize operational assets at the edge, with SmartServer IoT acting as a secure bridge to provide unprecedented flexibility in asset utilization.

03 The Benefits

SYSO chose SmartServer IoT for its numerous benefits:



It's a **one-stop-shop**, enabling the company to pull down data from multiple meters and energy management systems.



It's as **easy to integrate** into legacy systems as it is to design into new installations, harmonizing the data from these to feed into the STP.



It forms the heart of the STP, acting as a **central hub** to monitor and control everything.



It's a compact, lightweight package that's **quick** and easy to install.



It's outstandingly **reliable**, having been deployed in systems providing 24/7/365 service, without failures.

The benefits to SYSO's clients are tangible too. It boosts their return on investments measurably and gives them the confidence to expand those investments in renewable technology, which can only be good for the world today and future generations.

“

SmartServer IoT is a 'fit, configure, and forget' solution that takes the pain and complexity out of designing secure, reliable connectivity for energy monitoring and control applications. I recommend it for anyone that needs to connect energy assets to cloud applications.

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Chris Gosline,
Co-Founder and CEO
SYSO Technologies

04 About SYSO

Green energy generation is not just good for the environment, it can be great for investors too. This creates a virtuous circle: investors see great returns, so they invest more. With more investment, more green energy is generated, less CO2 is produced, and everyone on the planet benefits. SYSO Technologies plays its part in this green energy revolution with a cloud-based asset operations and management software platform that delivers better returns for investors. Its clients include businesses of many kinds, from technology leaders to investment banks, renewable developers to long-term asset owners.

Looking for more?

For more information on our SmartServer, please visit the EnOcean website:
www.enocean.com

For additional support, please contact info@enocean.com

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