XANTARO SOFTWARE & SOLUTIONS:

EFFICIENT ENERGY MANAGEMENT IN DATA CENTRES WITH etaONE®
Reduces operating costs and protects the environment

Significantly lower your electricity costs, reduce CO_2 emissions and increase the quality of supply, all without expensive hardware investments. **etaONE®**, an AIsupported software, enables companies to work more efficiently and in a more environmentally friendly way.

The demand for bandwidth continues to rise as digitalisation progresses, whether it's for gaming, streaming, video calls from home offices, and IoT in private households, or for automation, critical real-time applications, and augmented reality in production halls. Highcapacity and high-performance data centres are crucial to meet this increasing demand.

Based on synergies from various customer projects, Xantaro supports data centre operators in the implementation of modern data centre strategies. The aim is to ensure future viability, save operational costs and simplify the use of innovative technologies.

Xantaro is collaborating with etalytics, a developer of energy intelligence software, within a partner framework aimed at enhancing the energy efficiency of computing centre operations. The AI-supported solutions enable the identification of potential energy savings and the optimisation of system operations.

etalytics brings expertise from research into the application

In 2020, etalytics GmbH emerged from the research group "ETA | Energy Technologies and Applications in Production" at TU Darmstadt. With its developments, the start-up brings innovative data analytics and machine learning technologies

from research to application - in data centres, production plants, smart quarters/cities, for energy suppliers and building complexes.

The software solutions for saving energy have already received several awards - including the special prize "Digitalisation in Production", the Hessian State Prize for Energy, the start-up prize of the German Data Centre Association (GDA) and as part of the "Climate Protection Ideas Competition 2019" of the Energy Department of the City of Frankfurt and the start-up competition "Digital Innovations" of the Federal Ministry for Economic Affairs and Climate Protection.

USE CASE DATA CENTRE

The IT infrastructure, the air conditioning of the data centre environment, and the dissipation of waste heat lead to substantial power consumption and high emission levels.

The challenge:

- The cooling systems in data centres are based on numerous subsystems that interact with each other. They influence each other multidimensionally and dynamically.

- The continuous monitoring and analysis of all system data to coordinate the subsystems with each other are therefore important factors when it comes to optimisation and efficiency of

- However, the manual evaluation of the relevant data and the implementation of necessary adjustments is complex, extremely time-consuming and requires dedicated expertise - both in terms of the cooling systems and IT.

INCREASE ENERGY EFFICIENCY WITH etaONE®

etaONE® is an easy-to-implement management software for the autonomous optimisation of energy systems.

The platform uses data-supported analysis to identify potential savings and optimise operations accordingly. As a result, energy consumption can be reduced by up to 50% without the need to retrofit expensive hardware.

In addition to the standard functionalities of energy management tools, **etaONE®** also provides applications for operational optimisation, forecasting and anomaly detection.

Analysis

Understanding how **etaONE®** could generate greater efficiency in your network environment. Our experts prepare a feasibility and potential analysis as part of a four-stage model.

Furnishings

The components of your data centre's air conditioning are modelled and trained with logged measurement data. This creates a digital twin of your energy system.

Functionality

Telemetry data from your energy system is transferred to the **etaONE®** platform and checked for plausibility. This is followed by enrichment with further data, such as weather forecasts and energy prices. Based on the data, the AI-supported software can calculate the future behaviour of your energy systems and predict the optimally coordinated mode of operation.

Security

As data centres are critical infrastructures, the **etaONE®** platform is usually installed "on-prem" on a server. In addition, further security mechanisms can be implemented to ensure security of supply in all situations.

Benefit

• Significant cost savings due to lower energy consumption
• Reduction of CO_2 emissions for sustainable operations
• Increase in supply quality through improved utilisation of the systems
• Necessary expansions to the infrastructure can be postponed to a later date or even cancelled

Costs

Due to the significant reduction in energy demand, our solution usually pays for itself in the first year. The majority of the costs arise from the one-time set-up of the platform and the modelling of the system. After that, you'll just pay an annual licence fee for the software.

xantaro
connecting the world.

REFERENCE EQUINIX GERMANY

" **Jens-Peter Feidner**
Managing Director

"The demand for highperfor-
mance data centres continues
to increase significantly in the
course of digitalisation.
It is therefore important that we
organise our operations to be
as environmentally friendly and
efficient as possible.
With the help of the expertise of
etalytics, we are implementing
a new AI-based operational
optimisation of the cooling
systems based on the etaONE
platform. In doing so, we are
supporting a highly
innovative approach that can
serve as a blueprint for an
entire industry."

47,3%
less energy consumption per year

96.000 euros
energy cost savings per year

240 tonnes
fewer CO_2 emissions per year

6-7 months
Amortisation period

Xantaro specialises in technologies and services for highly available network infrastructures, from core, access, metro and longhaul networks to IP fabric-based data centre infrastructures and their interconnect to the 5G campus, wired & wireless solutions in the Evolved Campus and dedicated cloud services.

As Europe's leading experts for customised high-performance networks, we pave the way for you into the digital future - so you can concentrate on your core business with peace of mind.

OUR EXPERTS LOOK FORWARD TO LEARNING MORE ABOUT YOUR REQUIREMENTS!

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