

# Zaphire

## Cloud Based Energy Management System



### Introduction

Zaphire is a Norwegian company based in Drammen. Since 2018, we have been developing solutions for building automation and energy management, with a focus on usability, security, and reliability.

### Developed fully in the cloud

The Zaphire EOS system (EMS) is a user-friendly, cloud-based energy management system designed to monitor, analyze, and optimize energy consumption in buildings, regardless of size or complexity, using Zaphire SD systems. The system provides managers and operational staff with a comprehensive overview of energy data, enabling faster, more accurate decision-making with a clear focus on both operations and sustainability.

The system is built on open standards such as BACnet, Modbus TCP, and REST API, allowing it to integrate seamlessly with existing BMS systems and third-party solutions.

Below, you can see some of the system's main features listed by category:

#### Analysis and Insights

- Advanced energy analysis and visualization ✓
- Dynamic consumption, load, and ET curves ✓
- Consumption in relation to temperature and operation ✓
- Benchmarking across buildings, zones, and periods ✓
- Consumption estimates and trend analyses ✓

#### Dashboards and Reports

- Customizable dashboards ✓
- Key performance indicators (KPIs) for consumption ✓
- Interactive graphs and filtering ✓
- Visualization of energy patterns over time ✓

#### History and Storage

- Historical data ✓
- Long-term storage without data loss ✓
- Automatic backup of configurations ✓
- Export of values (manual or via API) ✓

#### Data Collection and Measurement

- Automatic collection of energy data ✓
- Support for multiple energy carriers ✓
- Integration with SCADA, IoT, and APIs ✓
- Data from meters, sensors, and third parties ✓
- Data validation without altering raw data ✓

#### Alerts and Deviations

- Detection of abnormal consumption ✓
- Alerts for deviations and errors in energy data ✓
- Email notifications for events ✓
- System alerts (without push notifications) ✓

#### Security and Access

- Access control ✓
- Encrypted communication (TLS 1.2 / 1.3) ✓
- Single Sign-On (SSO) ✓
- Two-factor authentication (2FA) ✓

### Insights That Create Value

With detailed energy reporting, building owners and property managers gain a solid decision-making foundation that provides control and predictability.

### Future-Proof

Forget vendor lock-in. Our open system ensures you can integrate both new and existing technologies without limitations.

### Security First

Zaphire is developed from the ground up with built-in cloud technology. This ensures high uptime, scalability, and maximum protection against digital threats.