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Zaphire BMS - Feature Overview

One platform that simplifies building operations, reduces energy consumption, and gives you full control - developed in the cloud for maximum security and efficiency.

The Story of Zaphire

Zaphire is a Norwegian company based in Drammen. Since 2018, we have been developing modern systems for building automation and energy management, with a focus on user-friendliness, security, and reliability.

The development of Zaphire was driven by the desire to create a top-level system built on modern IT principles and open standards. Today, Zaphire is an established player in the market, with solutions used by both municipalities and major property managers.

Zaphire is a new generation of building automation. We had long observed that the processes in traditional building and energy management systems were inefficient and complex. Existing solutions were often outdated, lacked user-friendliness, and failed to deliver the efficiency required to meet modern needs.

In 2018, we decided to address these challenges and began developing a system for building and energy automation. The result was Zaphire - a complete solution for control, monitoring, and energy management in buildings, offering high operational reliability, full mobile access, and lower life-cycle costs than traditional systems.

Zaphire Building Management System

A New Standard in Building Automation
As the first top-level building automation system built entirely in the cloud, Zaphire sets a new benchmark for accessibility, security, and simplicity. Our web-based platform requires no special software. The intuitive, responsive interface lets technicians operate the system just as easily from a smartphone on-site as from a computer in the office.

Real-Time Insight — Anytime, Anywhere
Zaphire gives you a complete, real-time overview of all technical systems in your building. Whether it's ventilation, heating, cooling, lighting, or other functions, you can instantly see how everything is performing, wherever you are. Interactive system views display live status updates, while graphs and trend curves provide clear insight into performance and energy use over time.

For larger buildings or property portfolios, Zaphire's powerful search function makes navigation effortless. Find rooms, zones, or specific components in seconds, organize search results however you prefer, and save them for future use. You can even link searches to automated alerts, so the system notifies you when certain conditions occur.

Intelligent Alarm and Event Management
Zaphire includes a alarm and event system. All installations are continuously monitored, and any deviations are immediately reported. Alarms can be acknowledged directly within the system, and each event is automatically logged with a timestamp, user, and action - ensuring full traceability and easy documentation of maintenance and follow-up. Notifications are sent via SMS, email, or push alerts, ensuring that the right person receives the right message at the right time.

Built on Security and Trust
Zaphire is designed according to zero-trust principles, meaning no components implicitly trust each other. All communication is fully encrypted over HTTPS (TLS 1.2 and 1.3), and the system never opens ports to the internet. All data is securely stored in Norway, in full compliance with GDPR and national privacy regulations.

Zaphire BMS - Features

System and Monitoring

Zaphire BMS gives you complete control of all technical systems in your building - from ventilation and heating to lighting and energy.

The interface displays real-time data through clear system graphics, enabling quick identification of deviations and informed decision-making. With trend visualization, scheduling, and live data on both desktop and mobile, following up on operations has never been easier.

- **Real-time monitoring of all technical systems -**
  ventilation, heating, cooling, lighting, and energy

- **System graphics with clickable components**
  for detailed data

- **Trends and history**
  for analysis and optimization

- **Tree structure**
  for easy navigation between buildings, zones, and components

- **Scheduling features**
  for operational hours and energy savings

- **Room control directly from mobile -**
  lighting, temperature, and ventilation in real time

- **Dashboards for visual summaries**
  of key metrics

Alarms and events

Zaphire monitors every installation in real time and automatically flags faults or anomalies. Acknowledge alarms right in the interface, while every action is time-stamped and recorded for complete traceability.

Send notifications via SMS, email, or push - and turn alarm history into insights that help prevent problems before they happen.

- **Real-time alarms and deviation monitoring**

- **Notification routing**
  via SMS, email or push alerts

- **Prioritization and filtering**
  of alarms by type, severity, and recipient

- **Acknowledgment and logging**
  of all events with timestamps and user details

- **Historical alarms**
  with filtering, export, and trend analysis

- **Predictive maintenance**
  based on recurring events and data history

Zaphire BMS - Features

Energy and analysis

Zaphire BMS has built-in energy monitoring that gives you real-time insight into how your buildings actually use energy. Consumption, temperature, and power output are displayed in clear and easy-to-read graphs.

- **Live monitoring and control**
  of technical installations

- **Visualize historical data**
  for analyzing energy patterns

- **Smart, data-driven control**
  for optimal comfort and energy optimization.

Integrations and standards

Zaphire BMS is built on open standards and integrates seamlessly with other systems. The solution supports BACnet, OPC UA, Modbus, MQTT, and REST API, allowing data to be freely shared between technical installations and IT systems. This gives you full flexibility to build a comprehensive and future-proof platform without vendor lock-in.

- **Open APIs and webhooks**
  Enable seamless data exchange and integration with any external system.

- **Support for industry-standard protocols**
  Connect easily through BACnet, OPC UA, Modbus, and MQTT.

- **Comprehensive RESTful API (JSON)**
  Access all data points and tags through a secure, developer-friendly interface.

- **Third-party integrations**
  Connect Zaphire BMS with your energy management, operational, and IoT platforms for a unified digital ecosystem.

Zaphire BMS - Features

Architecture and operation

Behind the system lies a modern architecture built on microservices in Microsoft Azure. The solution can run in the cloud, locally, or as a hybrid setup, providing high performance and unlimited scalability.

Automatic updates and built-in redundancy ensure stable operation with a documented uptime of over 99.99%.

- **Flexible deployment options**
  Run Zaphire in the cloud, on-premises, or as a hybrid setup

- **Modern microservice architecture**
  Built on Microsoft Azure Kubernetes, ensuring reliability, scalability, and speed.

- **High-performance Linux platform**
  Optimized for performance and efficiency with minimal resource usage.

- **Proven uptime and redundancy**
  Enjoy 99.99% documented uptime and complete redundancy across all system layers.

- **Limitless scalability**
  No restrictions on the number of users or buildings.

- **Responsive web interface**
  A smooth, consistent experience on desktop, tablet, and mobile.

User experience

Zaphire is developed with the user at the center. Everything is done directly in the browser, with no need to install any software. The interface is intuitive, fast, and adaptable to all screen sizes.

The result is a solution that is easy to learn, efficient to use, and accessible to the entire organization.

- **Intuitive interface**
  Designed for fast onboarding and effortless daily use.

- **Multi-language and multi-device support**
  Works seamlessly across languages and devices — no manual refresh required.

- **Live data updates**
  Real-time performance and status updates, always current and accurate.

- **Custom user roles**
  Tailor access for operations, energy management, and IT teams.

- **Edit directly in the browser**
  Easily modify system views and configurations online — no external software needed.

- **Developer tools**
  Advanced development utilities available for customers with extended access.

- **Shared resources and distributed objects**
  Connect and share data effortlessly across multiple sites and facilities.

Security and access control

Zero-Trust Security by Design

Zaphire is built on a zero-trust architecture - meaning no device or service automatically trusts another. Every connection is verified, and all communication flows through secure, controlled APIs, ensuring maximum protection across all system layers.

End-to-End Encryption

All information exchanged between users, installations, and cloud services is encrypted using TLS 1.2 and 1.3. This ensures that data is always protected against unauthorized access and manipulation.

Access Control and Roles

Zaphire uses role- and group-based access management, providing full visibility into who has access to which buildings and functions. Each user only sees what is relevant to them.

Simple and Secure Login

The system supports Single Sign-On via Azure AD and other OIDC-based solutions. Two-factor authentication can be enabled for additional security - without compromising user-friendliness.

Traceability and Auditing

All actions within the system are automatically logged. You can easily see who did what, when, and where, providing full control and simplifying both troubleshooting and auditing.

Data and Backup

All information is securely stored in Microsoft Azure's Norwegian data centers. The system performs automatic backups that can be quickly restored when needed, ensuring that data is always safe and available.

Automated Updates

Zaphire updates automatically without downtime. New features, bug fixes, and security enhancements are continuously rolled out, ensuring you always have the latest and most secure version.

Robust Architecture

The system is built on a microservices architecture that minimizes the risk of failure and allows each system component to be updated or restarted independently. This ensures high stability and minimal operational downtime.

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**Want to know more?
Contact us today!**

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