



zaphire

Zaphire Building Management System

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



The Story of Zaphire

Zaphire - A New Generation of Building Automation

Zaphire is a Norwegian company based in Drammen. Since 2018, we have developed modern systems for building automation and energy management, with a strong focus on usability, security, and reliability.

Zaphire was founded with the ambition to create a top-level system built on modern IT principles and open standards, challenging traditional solutions that are often complex, inflexible, and costly to operate. From the beginning, our goal has been to simplify building operations while enabling better energy performance and full system control.

Today, Zaphire is an established player in the market, with solutions used by large Norwegian municipalities (such as Lillestrøm and Bærum) as well as major property managers. Our platform supports everything from individual buildings to large portfolios, helping organizations reduce energy consumption, streamline operations, and make data-driven decisions.

By combining robust engineering with intuitive design and a cloud-based architecture, Zaphire delivers a future-ready platform that adapts to evolving needs, without vendor lock-in or complex upgrades.

Simplifying Building Operations and Redefining Energy Management for Modern Buildings

Zaphire represents a new generation of building automation. For years, we observed that traditional building and energy management systems were inefficient, overly complex, and poorly adapted to modern needs. Existing solutions were often outdated, difficult to use, and lacked the performance, flexibility, and integration capabilities required in today's buildings.

In 2018, we set out to solve these challenges and began developing a new system for building and energy automation, built from the ground up on modern IT architecture and open standards.

The result was Zaphire: a complete, cloud-based platform for control, monitoring, and energy management of buildings. It offers high operational reliability, full mobile access, seamless integration with third-party systems, and significantly lower lifecycle costs than traditional solutions.

By combining robust engineering with intuitive design, Zaphire enables building owners and operators to reduce energy consumption, simplify operations, and gain full control of their building portfolio.

Zaphire BMS - The Cloud-Based Solution

Traditional BMS and SCADA systems have long been characterized by complex installations, costly upgrades, and poor user experience. Zaphire was developed to address these challenges. As one of the first top-level systems in the industry built entirely as a cloud-based solution, Zaphire set a new standard for accessibility, security, and simplicity.

The platform is fully web-based and requires no specialized software. Its responsive, user-friendly interface allows technicians to operate the system just as easily from a smartphone on-site as from an office PC. Zaphire is designed for building owners, facility managers, property portfolios, and public sector organizations that require secure, scalable, and efficient building operations.

With automatic updates, the system is always equipped with the latest features. Installation time is significantly reduced compared to traditional solutions, resulting in lower upfront investment and reduced long-term costs.

Web Based Configuration and Editing

Zaphire is designed to be fully operated and configured directly in the browser, eliminating the need for specialized software or local engineering tools. All system components, from graphics and dashboards to alarms, logic, and integrations can be viewed and modified in real time through a secure web interface.

Changes are applied instantly and reflected across the entire system, enabling faster iteration and significantly reducing commissioning and maintenance time. This approach also ensures that all users work on the same version, avoiding version conflicts and simplifying

collaboration between technicians, operators, and integrators.

By moving configuration and engineering to the browser, Zaphire lowers the barrier for making changes, increases flexibility, and enables more efficient workflows, whether you are adjusting a single parameter or managing complex systems across multiple buildings.

Zaphire provides a user-friendly system both for us as a system integrator and for our end customers. We see a significant reduction in engineering time compared to previously, and we find that we can offer a better product at a lower total cost.

- Håvard Rougseth, Head of Building Automation at Hamstad AS



An Overview of Zaphire Functions

Real-Time Overview

Get a complete and real-time overview of all technical systems in your building. Monitor ventilation, heating, cooling, lighting, and more, anytime, anywhere. The interface is clear and flexible, with real-time system views and graphs that provide quick insight into performance. Zaphire EMS also enables detailed analysis of historical energy consumption.

For large buildings or portfolios, the built-in search function makes navigation simple. Search for rooms, zones, or components, save and reuse queries, or link them to alerts for automatic notifications.

All functionality is available on mobile, tablet, and desktop. Technicians can view live data, acknowledge alarms, and adjust parameters directly from their phones, making the system a shared tool for operators, owners, and consultants.

Alarms and Events in Zaphire BMS

The system includes a complete system for managing alarms and events. All installations are continuously monitored, and deviations are reported instantly. Alarms can be acknowledged directly in the system, and every event is logged with time, user, and actions, ensuring full traceability and easy documentation.

Notifications can be sent via SMS or email, ensuring the right person is alerted at the right time. Custom rules for prioritization and notifications reduce unnecessary messages while ensuring critical issues are handled quickly.

Alarm history provides valuable insights. Events can be filtered and analyzed to identify recurring faults, patterns, and trends, supporting better maintenance, reduced downtime, and longer equipment lifespan.

Fully integrated with real-time monitoring and trend analysis, alarms provide immediate insight into cause and impact, turning notifications into tools for smarter operations and better decisions.

Data, alarms, and trends can also be exported to CSV, Excel, or PDF for easy sharing and further analysis.

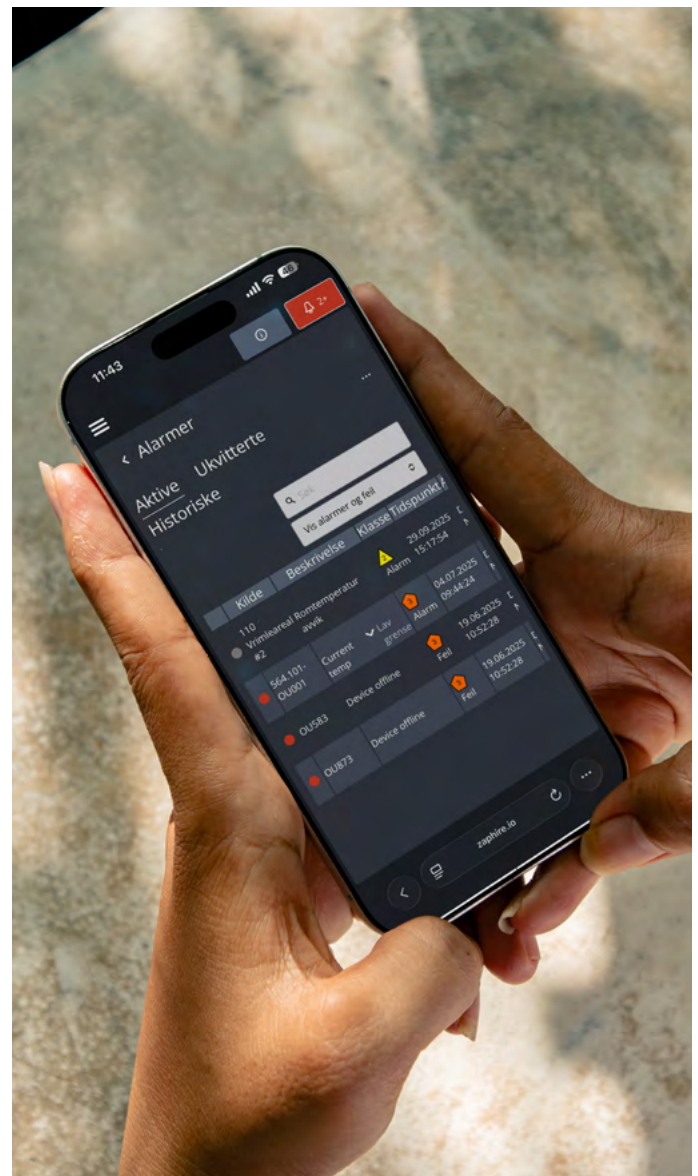
Energy Monitoring and Analysis

Gain full insight into how your buildings use energy. Zaphire provides real-time monitoring of consumption, temperature, and performance, combined with clear visualizations of historical data.

This makes it easy to identify patterns, optimize energy usage, and improve overall efficiency. Smart, data-driven control helps ensure optimal comfort while reducing energy costs.

Integrations and Open Standards

Zaphire is built on open standards, enabling seamless integration with other systems. Support for BACnet, OPC UA, Modbus, MQTT, and REST APIs allows data to flow freely between technical installations and IT systems. This ensures maximum flexibility and prevents vendor lock-in, making it easy to build a future-proof digital ecosystem.





Automation and Scheduling

Zaphire simplifies daily operations through powerful scheduling and automation tools. Define operating hours, automate routines, and adjust system behavior based on real-time data. This reduces manual work, improves consistency, and helps optimize both comfort and energy usage across your buildings.

Security and Access Control

Zaphire is built with security at its core, based on a zero-trust architecture where every connection is verified and all communication flows through secure APIs. Data is protected with end-to-end encryption, ensuring safe and reliable information exchange across all system layers.

Role-based access control ensures that users only see what is relevant to them, while support for Single Sign-On and optional two-factor authentication provides both simplicity and strong protection. All actions are automatically logged, giving full traceability and supporting auditing and troubleshooting.

Data is securely stored in Norwegian data centers, with automatic backups ensuring fast recovery when needed. Continuous, downtime-free updates and a robust microservices architecture further ensure high stability, security, and system availability.

User Interface

Zaphire features a modern, intuitive interface designed to make complex building systems easy to understand and operate. The platform presents real-time data through clear system graphics, dashboards, and interactive components, allowing users to quickly identify status, deviations, and trends.

The interface is fully responsive and consistent across desktop, tablet, and mobile devices, ensuring a seamless user experience regardless of where you access the system. Navigation is simple and efficient, with structured views, powerful search functionality, and customizable layouts that adapt to different user roles and needs.

By combining clarity with flexibility, Zaphire enables both technical and non-technical users to interact with the system confidently, reducing training time, improving decision-making, and enhancing overall operational efficiency.

"By leveraging all of Zaphire's capabilities, we have enhanced operational efficiency and streamlined processes. Our service technicians benefit from mobile access, enabling more effective and responsive maintenance. Zaphire has significantly improved the efficiency of our property operations with super easy access on smartphones 24/7, enhancing both control and performance"

- Steinar Løvstad, Chief Engineer at Lillestrøm Municipality

From Application to the Cloud

Implementation and Scalability of Zaphire

Zaphire is designed for fast and efficient deployment, without the need for complex integrations or major changes to existing infrastructure. Thanks to its modular architecture and support for open protocols, the platform can be connected to existing building systems in a matter of minutes. Once a physical connection is established, data collection starts automatically, without the need for VPN, extensive IT configuration, or time-consuming setup.

Zaphire separates responsibilities clearly: local installers handle physical connectivity, while the platform manages data collection, security, analysis, and visualization. This streamlined approach significantly reduces implementation time and complexity.

The solution is built to scale. Once one building is connected, additional sites can be onboarded quickly using the same secure connection method. This makes Zaphire ideal for large portfolios, enabling rapid rollout, standardized data access, and consistent reporting across all locations.

Architecture

Zaphire is built on a modern, flexible architecture that makes the platform scalable, secure, and future-ready. The solution consists of modular components that can operate independently or together as a complete system, giving building owners, operators, and integrators the flexibility to adapt it to their needs.

It can run fully in the cloud, on-premise, or as a hybrid solution. The hybrid model ensures high flexibility and resilience, even in the event of network disruptions, local systems continue to operate without interruption.

Zaphire is developed using platform-independent technologies, allowing components to be reused across all layers, from cloud services to local automation. The microservices-based architecture, where each service has a dedicated responsibility, ensures high reliability and simplifies future development. This modular structure enables seamless scaling from a single building to large portfolios with hundreds of sites. Native support for MQTT makes it easy to connect IoT sensors and third-party systems without additional software or complex configuration.

The result is a robust, future-proof architecture that combines flexibility, reliability, and seamless integration across all levels of the system.

Security and Uptime of the Highest Standard

In a time where IT security is critical, Zaphire is built with security at its core. Based on a zero-trust architecture, no component implicitly trusts another, and the platform requires no VPN connections or open internet ports.

Unlike traditional solutions with broad network access, Zaphire operates through secure APIs at the application layer. Users never access underlying networks directly, and all access is limited to specific sessions and endpoints, following the principles of segmentation and least privilege.

Strong password policies, full event logging, and optional two-factor authentication protect users, while continuous updates and automated testing ensure vulnerabilities are addressed. All system changes are logged, and automatic backups enable fast restoration and full traceability.

Zaphire also delivers proven stability. While the SLA guarantees 99.95% uptime, actual performance exceeds 99.997%. Even during network outages, local systems continue to operate.