

Vision Center

Smarter Building Management

01 THE CHALLENGE

Sauter manufactures market-leading hardware and software for monitoring, managing and remotely controlling smart buildings across the world. Sauter's devices provide real-time data for building systems that manage heating, ventilation, security, energy, water and other utility services.

Sauter's challenge was that their previous generation of building management systems made it difficult for the company and their clients to configure when the systems were required to manage large installations involving hundreds of devices. Essentially, this generation of systems wasn't adapted for the modern demands of interconnected devices and remote management capabilities. The user interface of the systems was also dated and not designed to deal with more modern requirements, so the monitoring and management displays became less effective and performance degraded.

02 THE SOLUTION

Next-generation, smart-building management software was required to enable Sauter to maximise the value of its new devices. This software would need to be able to manage the increased data volumes now produced by typical smart building systems. It was essential that this new software solution significantly increased performance, supported the BacNet and OPC-UA protocols and could be integrated with other Sauter systems (CaseVision, Case Engine, moduWebVision and moduWeb), as well as hardware devices manufactured by other vendors in the market and other systems, like NovaNet or KNX.

In 2009, Sauter selected Critical Software as a partner to build the next generation of their smart building management applications: Sauter Vision Center (SVC), which went live with v1.0 in 2012.

The software provides building management functions such as alarm lists, data point lists, graphs and reports which can be personalised to increase their capacity and value to the client. All of this is built around a customisable navigation system with rich visualisations. Additional modules such as the Energy Management Module (which enables energy use and production to be monitored and managed) and the Maintenance Module (which enables tracking and management of maintenance plans and operations) allow the base solution to be personalised by the client as required.

Additional functions now available include alarm monitoring (with improved statistical displays and automated or manual reporting), user access management, configurable audit trail logging (for any changes to both the system configuration and building status), reporting capabilities, calendar management (to allow automated scheduling of systems) and a host of visual navigation and monitoring displays to aid the management and understanding of large amounts of data. Functions were developed to make object management and configuration easier and more interactive, especially for large volumes of objects, devices and data.

The hardware devices operate mainly under the BACnet and OPC-UA protocols, the latter providing support for connecting with legacy systems (e.g. NovaNet). The devices provide real-time data gathered from the physical sub-systems being monitored such as heating and cooling, ventilation, lighting, blinds, air renewal, etc.

03 THE RESULTS

Vision Center is now a ground-breaking smart building management product that combines the functions of a building management system with the portability of the internet and the openness of modern IoT systems.

Over 1500 licenses have been sold worldwide, in over 30 countries and more than 10 languages supported.

A huge variety of commercial buildings are using the application, such as airports, stadiums, hotels, shopping centres, schools, hospitals, banks, ski resorts and office buildings, as well as some specialised industrial buildings such as pharmaceutical factory units and nuclear power plants.

04 THE TECHNOLOGIES

- Agile software development
- Native BACnet and OPC-UA protocols
- Support for novaNet, KNX, MQTT and other protocols
- Built with Microsoft .NET Framework
- Responsive web design using React JS
- Microsoft SQL Server

05 THE CLIENT



ABOUT CRITICAL SOFTWARE

Critical Software provides systems and software services for safety, mission and business-critical applications. We work closely with our clients, helping them to meet the most demanding standards for performance and reliability.

We were founded in 1998, with NASA our very first client. Today, we work across many international industries and have offices across the globe.

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We are CMMI Maturity Level 5 rated.
For a list of our certifications & standards visit our website.

