



Everything under control at the push of a button

xComfort, Eaton's expandable wireless building automation system, combines comfort and a high degree of reliability in a private house with a vehicle showroom

Location:
Lyssach, Switzerland

Challenge:
A flexible building automation system for a private home with an attached showroom that can easily be adjusted and expanded at anytime.

Solution:
xComfort building automation system and visualisation.

Results:
With its energy distribution components and multimedia controls, the xComfort system is able to monitor and control all the technology in both buildings with around 440 wireless actuators.

"The system from Eaton has everything I'd imagined. At the push of a button, it controls, monitors and programs all the building functions and allows me to concentrate on the business."

André Vogel

Selling fancy cars, luxury boats and modern caravans... this is the world of André Vogel and his company Vogel's Offroads based in Lyssach, Switzerland. Along with the construction of a connected residential building, a new four-story showroom was recently built to inspire and persuade customers. All floors are accessible by a goods lift, which makes it possible to transport the boats and car bodies to the fourth floor. Eaton's xComfort building automation system was implemented to connect everything safely, reliably and as conveniently as possible.

Background

Venture off the beaten track, discover and experience new routes, savour the sweet taste of freedom. For many people, this is the classic "American Dream"; and Vogel's Offroads offers them vehicles that can make that dream a reality.

André Vogel and his company Vogel's Offroads have the largest range of new and used American and Canadian vehicles in Switzerland. But that's not all: the company's range also includes boats and exclusive American caravans. All these vehicles are on display in a newly-built showroom that spans four floors, covering an area of over 8840 m².

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The showroom opened in October 2014 and is directly adjacent to a newly-built home (belonging to André Vogel) which is equipped with the latest generation of building automation technology, with mobile control via computer and smartphone. In order to integrate both the new showroom and the home into this system, a highly flexible and reliable solution was required. The Root-based planning company Amrein Projekt GmbH and Elektro Zemp GmbH, the electrical installation company from Hasle, relied on Eaton.

Challenge

In addition to the automation of the private home to control indoor and outdoor lighting, windows, doors, gates, shutters/blinds and awnings, it was important to integrate the additional requirements of the showroom. Most importantly, the building automation system needed to allow for LEDs that could be dimmed. Additionally, the goods lift, which connects the four floors, as well as the lighting, temperature, outdoor advertising, alarm systems and water and smoke detectors had to be controlled and monitored. In order to close the exhibition hall on an evening with little effort, Vogel wanted an additional central function with which to close all windows, switch off lights and lock doors. In addition, radio-based control technology was important, so that he could control the system through a connection using his smartphone, tablet or computer. This ruled out conventional wired, intelligent networking systems.

As an xComfort partner, Mäni Zemp from Elektro Zemp had the perfect solution – Eaton's xComfort wireless building automation system, which offers a range of options and can be extensively extended. It was configured, networked and visualised by Amrein and installed by Zemp.

Solution

With its energy distribution components and multimedia controls, xComfort is able to monitor and control all the technology in both buildings wirelessly. Whether it's lighting, shading, alarm systems, smoke and water detectors or access control, the innovative system provides enhanced economic viability, energy efficiency and greater safety. In addition, certain functions for daily routines that do not change, such as the central functions at the end of the day or the wind force settings for adjusting the awnings, can be programmed as configurations. This is made possible by various sensor and actuator components for switching or controlling of the electrical components in the buildings. Because the xComfort system communicates wirelessly, it is very easy to install radio buttons, switches and sockets and the time-consuming wiring process and associated errors are eliminated. The switches may be installed anywhere using screws or adhesive tape.

A total of 440 actuators were used, which were connected to each other via 22 Ethernet communication interfaces (ECI). The wireless technology is designed so that, even at larger spatial distances, no

routers are necessary because each individual component strengthens the wireless signal. With the xComfort solution, it is possible to integrate and control new and additional functions easily. In addition to receiving and executing commands, the system is also able to provide status feedback for real-time monitoring.

Results

The building automation system is fully developed and has already proved successful in a wide range of applications. "The system from Eaton has everything I'd imagined. At the push of a button, it controls, monitors and programs all the building functions and allows me to concentrate on the business," says André Vogel. "The system considerably facilitates our daily processes in a project of this size." The opening of the showroom was celebrated on an appropriately large scale - it was accompanied by a world record, the display of the world's largest wine bottle at 4.20 m high, with a circumference of 3.77 m and a capacity of 3094 litres of wine.

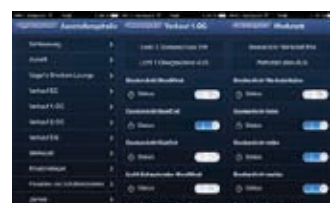
André Vogel and his 20 employees are pleased with the new showroom and its modern comforts. Ultimately, employees also save time when operating necessary functions such as gates and barriers since they do not have to keep leaving the car to operate switches manually. After all, the goods lift, roll-up doors and access barriers can be conveniently activated by pressing a button on a smartphone.



Mäni Zemp, André Vogel and Oliver Amrein have chosen the highly functional xComfort system



With the goods lift, boats can be transported to the fourth floor – this can now be done by pressing a button on a smartphone



Different areas and functions can be individually and easily controlled using a smartphone

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