Building Future-Ready Homes with Smarter Energy and Connectivity

Overview

The Rütipark development in Rain (LU), Switzerland, is a modern residential complex consisting of multiple apartment buildings designed with future-ready energy solutions in mind. Key features include a shared self-consumption energy system (ZEV) and integrated electromobility. To bring this vision to life, Smart Energy Link deployed an advanced network infrastructure built on Zyxel Networks' technology. This cloud-managed solution delivers seamless and secure wireless connectivity, even extending to the underground parking garage. The collaboration between Schmid Immobilien AG, Smart Energy Link, and Zyxel Networks demonstrates how innovative technologies contribute to the successful implementation of sustainable and intelligent energy solutions. Thanks to forward-thinking planning and proven technology, the project is well-equipped for the future.

Challenges

Project developer Schmid Immobilien AG sought a high-performance, future-proof network to support its self-consumption energy system (Zusammenschluss zum Eigenverbrauch, ZEV) and electric vehicle (EV) infrastructure. A key challenge was connecting five separate buildings through a single internet connection. Besides, the large underground parking facility required stable, secure WiFi to support the EV charging infrastructure. In addition, the network had to be both powerful and easy to maintain to enable efficient and sustainable energy management.

Solutions

Schmid Immobilien AG partnered with Smart Energy Link, a company specializing in innovative energy concepts, technical planning, energy solutions, and electromobility, to provide high energy efficiency and a more sustainable lifestyle for residents.

Customer
Schmid Immobilien AG of Ebikon

Industry
Real estate

Location
Rain (LU), Switzerland

Partner
Smart Energy Link AG (SEL)

Customer Background
Located in Rain (LU), Switzerland, Rütipark is a modern residential complex comprising multiple apartment buildings designed with advanced energy solutions in mind. The development features a shared self-consumption energy system (ZEV) and integrated electromobility to support efficient, future-ready living.

This powerful setup supports both the building automation systems and the electric vehicle (EV) charging infrastructure. Six PoE (Power over Ethernet) switches deliver efficient power to network devices, while ten WiFi 6 access points ensure fast, stable wireless coverage throughout the complex—including the spacious underground parking garage. Thanks to Zyxel Nebula's cloud-based management, the entire network can be monitored and configured remotely, saving time and operational resources. One of the key strengths of the solution lies in its flexibility: SEL can easily create a separate guest WiFi network, isolated from the main infrastructure, enhancing security while offering convenient access for residents and visitors. Implementation proceeded smoothly from September 2022 to September 2024, with Zyxel components integrating seamlessly into the existing environment.

Results

The Rütipark development successfully meets the highest standards for energy efficiency, networking, and electro mobility thanks to the implemented network infrastructure. The cloud-based Zyxel Nebula solution enables easy management and maintenance, while the powerful components ensure a stable and secure connection.

- Future-ready infrastructure supporting automation and EV charging
- Reliable connectivity with stable, fast WiFi throughout the complex
- Effortless management through remote monitoring and cloud control

Product List

- NWA90AX WiFi 6 Access Points

- GS1915-8EP/24EP Smart Managed PoE Switch