Each decade brings about new trends in building design and efficiency. With the rise of connected devices and the Internet of Things, staying on top of innovative technology trends and providing a stellar experience to customers and tenants can be challenging, but when done well, leads to a competitive advantage in the industry. One company leading the charge in innovation in this area is Alpiq InTec Switzerland Ltd in Europe.

Alpiq InTec is Switzerland’s market leader in the fields of building technology offering integrated intelligent solutions to match customers’ goals and individual needs. Energy efficiency and the use of renewable energy in buildings is one of Alpiq InTec’s core competencies.

Alpiq InTec knows how to stay ahead through its digital strategy. They pride themselves in offering compelling business models to their customers that help them exploit the new opportunities Digital Building and Enterprise IoT bring to the industry. To support this strategy Alpiq InTec built a new platform encapsulating Cisco’s Digital Building Solution, smart lighting, edge sensor technology, energy management and intelligent collaboration.

**Challenges**

Existing building technology including lighting (non-LED) is fading out and expected to do so even faster in the next few years. It was not just about one element such as lighting but about the entire building experience that needed to be more smart, intelligent and agile for the occupants. A solution was required that significantly enhanced all areas of services that a building can provide spanning from social to environmental to economic impact.
Alpiq InTec wanted a solution that addresses:

- Enhanced client experience and services
- Effective and efficient facility and resource utilization through automation and analytics
- Flexible infrastructure to take advantage of future technology for better organizational performance through e.g. digital workplace solutions

The building industry is about to face disruption through IoT. Alpiq InTec wants to benefit from this by taking a leading role in deployment of solutions like Cisco Digital Building Series and retain their leadership in Building technology.

**Solutions Implemented and Benefits**

Alpiq InTec together with their eco-partner BORN Green Technologies implemented Cisco’s Digital Building Solutions at the new Alpiq office in Olten allowing them to showcase today’s edge technology along with providing new services with a faster time to market. The components comprised of Cisco Collaboration (Spark), Connected Lighting (Philips), Energy and Occupancy Management (Cisco Energy Manager, Philips Envision Manager), and Cisco’s new Catalyst Digital Building Series Switch.

The purpose-built Cisco Catalyst Digital Building Series switch is leapfrogging a generation of innovation in IP convergence of network powered end-devices combined with new IoT protocol integration and enterprise security. This power efficient switch line is optimized for low voltage PoE deployments and connectivity, converging multiple building networks (Lighting, HVAC, Badge Systems, Metering, CCTV, Access) onto a single IP network.

Catalyst Digital Building Series greatly simplified the deployment experience with integrated security and lower total cost of ownership, accelerating the return on Investment—

- Supports Cisco UPOE and delivers 60W of power/port to support majority of indoor building and lighting applications
- Bluetooth enabled switch for out of band configuration via mobile app facilitates smart and easy installation (available on both Android and Apple platforms)
- Helps mitigate power outages with a power efficiency of 90% and has a system life reliability of 10 plus years

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**Products and Solutions**

**Routing and Switching**
- Cisco Catalyst Digital Building POE Series Switches
- Cisco Catalyst 2960XR

**Security**
- Cisco IOS Security Features

**Servers**
- Cisco Unified Computing Systems UCS

**Energy Management**
- Cisco Energy Manager
- Philips Envision Manager

**Cisco Collaboration**
- Cisco Spark
- Cisco SX10

**Network Powered Lighting**
Philips Connected Lighting Solution:
- Philips TrueLine PoE LED Luminaries with multi sensors
- Philips Envision Manager
- Philips Antumbra User Interface
- Philips PCA App for personalized control
- Philips Envision Gateway
“Alpiq InTec successfully integrated Cisco’s Digital Building Switch and Solution converging siloed building systems on a single IP platform. As Switzerland’s market leader in the fields of building technology, this allows us to offer our customers new digital products and services, delivering real-time analytics, reducing costs and responding to demand of agile services in today and future digital marketplace.”

Stefan Tschanz
Managing Director
Alpiq InTec Switzerland Ltd.

Beyond Lighting

One of the solutions deployed was Connected Lighting in partnership with Philips. LED lighting fixtures equipped with integrated sensors to analyze environmental data, traffic patterns & building occupancy, manage space and control lighting & IT connected devices throughout the building, lowering energy consumption and improving employee satisfaction. Combined with Cisco Spark, tenants can interact with the building and utilize open rooms and smart spaces. The Digital “meeting room” experience was brought to reality by Cisco Spark enabling interactions via iPads, wireless file sharing, voice and video to connect across geographies.

Energy Efficiency and Control

Cisco Energy Manager and Digital Building Series combined with the Philips Envision Manager bring unprecedented energy visibility and granular control to the network powered lighting and connected devices throughout the building. Taking this even further connected smart meter technology will report non-IP device energy consumption as well. As a result, Alpiq Intec will have access to more energy data and achieve a greater level of control serving clients more efficiently.

Buildings of the Future

The building industry is evolving quickly with new technology every day, and Alpiq InTec is actively searching for ways to improve customer experience. With the industry facing constant disruption, solutions like Cisco’s Digital Building allow Alpiq Intec’s Digital Building in Olten will serve as a showcase for customers and lead the way in building technology and Enterprise IoT. These solutions will not only revolutionize buildings but reduce resource consumption, save energy, optimize workplace patterns and improve security.