CASE STUDY

molex

Cisco’s Atlanta Collaboration Center Reinvents the In-Office Experience ›

CUSTOMER PROFILE

Cisco is a worldwide leader in the technology that powers the internet. Cisco inspires new possibilities by reimagining customer applications, securing data, transforming customer infrastructure, and empowering teams for a global and inclusive future.

THE CHALLENGE

Increasing numbers of employers are seeing the benefits of hybrid working. With a wider range of options and convenience available to employees, workspaces need to work harder to encourage them to come back. For Cisco, embracing this challenge means completely rethinking what a workspace environment is. Their facilities worldwide are combining hyperconnectivity, cutting-edge green tech, and beautiful, vibrant design to completely upend assumptions about what an in-office experience can be. The goal is to attract workers, without forcing them to return.

The Cisco Atlanta project was the latest project to complete, following their groundbreaking Penn One development.

THE PRODUCT

CoreSync smart building solution:

- CoreSync control system
- CoreSync sensors, PoE gateways and drivers
- CoreSync Emergency Lighting Bypass

THE SOLUTION

The Cisco Atlanta project looked holistically at the physical environment and all the ways design and technology could positively impact workspaces. Many studies have shown that lighting is a particularly significant parameter in indoor environments, impacting occupant’s mood, wellbeing, and ability to focus.

CoreSync is a smart building solution that uses a native Internet Protocol (IP)-based technology to monitor and control lighting and other building functions. Lighting can be controlled on preset schedules, in response to sensor data, or be adjusted locally to suit the needs of occupants at the time.

Combining preset schedules with occupancy data enables lights to be switched off when rooms are not in use, saving energy and money. It also enables the temperature of the lights to automatically adjust over the course of the day to match the natural shift in daylight. This human-centric lighting has been demonstrated to be more comfortable for occupants and to help them to be more productive.

Data from lighting sensors enables the system to adapt to actual conditions – for example turning the brightness up when heavy clouds reduce the amount of natural daylight, or turning the lights off when natural daylight is sufficient.

CoreSync was integrated with Cisco’s own building management system where its sensor data could be monitored and utilized by other systems. For example, CoreSync light sensors provided the data needed to operate automated Mecho window shades, while environmental sensors enable the facilities management team to monitor air quality across the facility.

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As well as ensuring more comfortable environments, lighting has an essential role to play in ensuring the safety of occupants. In the event of an emergency or power outage, emergency lighting is required to ensure people can navigate the building and to guide them to safety. The CoreSync Emergency Lighting Bypass enables any connected lights to be utilized for emergency lighting purposes, reducing the need for backup systems and additional hardware. A backup power supply keeps the lights on even when building power is not available.

In Cisco's Atlanta Collaboration Center, over 1004 CoreSync gateways were installed over 3 floors totalling 49,500 sq. ft. Each gateway controls multiple fixtures and sensors.

The building automation systems, and nearly everything else, run off low-voltage Power over Ethernet. This saves energy and removes the need for a large amount of copper and steel conduit which would have been required for high voltage cables.

CoreSync is designed around a PoE infrastructure. While the connections between the Cisco PoE switches and the CoreSync gateways are made using standard copper Category cable, fixtures and sensors are connected to CoreSync drivers and gateways using Molex Micro-fit cables. This narrow-gauge, lightweight cable provides both power and data connectivity and saves weight and space. Fixtures and sensors that serve a specific area can be wired together in a daisy-chain architecture, further reducing the amount of cable required. In addition, self-powered devices such as light sensors and switches can be connected wirelessly for flexibility in positioning and easy installation.

THE BENEFITS

The new Cisco Collaboration Center in Atlanta was opened to external visitors in April 2023. In these new office environments, visitors can see various innovations for hybrid work deployed and in active use. These offices are comfortable, welcoming, and aesthetically pleasing spaces, with abundant natural light and precise, data-driven temperature and air-quality controls.

With the data they now harvest on an ongoing basis, they have constant insights into what's working and what isn't. The result is improved efficiency, sustainability, and great design.

"We now know where the energy's going," said Bob Cicero, Americas smart building leader at Cisco.. "Before you had one giant energy meter. Now, with all the connected components and data sets we have, we know where all our energy is being utilized. So, we continually optimize that energy curve on this journey to net zero."

The same data informs the very design of the space, and the next space.

"Everything being connected adds this incredible advantage that you start to get insights and data produced on how the space is being used," said Mark Miller, Cisco's Director of hybrid work strategy in Cisco Collaboration Sales. "Data on how our spaces are performing and how our employees are working within the space gives us great insights on how to build the next environment."

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