Smart Shades, Simplified: Powered by PoE

Partner Alliance Solution Brief

Cisco, a global leader in networking and smart building technologies, and Mecho, a pioneer in innovative shading solutions, have partnered to revolutionize smart building ecosystems. By integrating Cisco's advanced Power over Ethernet (PoE) switching technology with MechoNet's PoE-powered automated shades, this collaboration delivers a seamless, energy-efficient, and scalable solution for modern workplaces. Together, they enable unified control of shading, lighting, and other building systems over a single network infrastructure, reducing installation costs, enhancing sustainability, and optimizing occupant comfort. This partnership empowers customers to create intelligent, hybrid workspaces that prioritize wellness, productivity, and environmental responsibility.

About Cisco
Cisco (NASDAQ: CSCO) is worldwide leader in technology that powers internet. Cisco inspires possibilities by reimagining your applications, securing your enterprise, your infrastructure, and empowering your teams global and inclusive future.

About Mecho
Mecho, founded in 1969, engineers sustainable, automated shading that optimize daylight, reduce energy use, and support occupant

The Challenge

Lack of Integration:
Traditional shading systems often operate in isolation, making it difficult to coordinate with other building systems like lighting or HVAC. PoE shades, integrated with MechoNet and Cisco's network infrastructure, enable centralized control and seamless interoperability with smart building ecosystems.

Complex Wiring and Installation:
Traditional shades require separate power and control wiring, increasing installation time, cost, and complexity. PoE shades use a single Ethernet cable for both power and data, simplifying installation and reducing infrastructure needs.

High Energy Consumption:
Conventional motorized shades often rely on AC power, which can be less efficient. PoE shades leverage low-voltage power delivered through Cisco's PoE switches, reducing energy usage and supporting sustainability goals.

Occupant Comfort and Productivity:
Manual or non-integrated shades may not adapt to changing light conditions, impacting comfort. PoE shades can be programmed or automated to optimize natural light, reduce glare, and enhance occupant wellness and productivity.

The Solution: PoE-Powered Mecho Shades

The Cisco and Mecho partnership overcomes these challenges by combining Cisco's PoE switching technology, enhanced with advanced energy management and security capabilities, with MechoNet's PoE-powered shades. MechoNet is Mecho's proprietary control platform, designed to seamlessly integrate with intelligent building networks.

Key Benefits

Simplified Installation and Reduced Costs: A single Ethernet cable delivers both power and data, eliminating the need for separate electrical wiring. This reduces installation time, labor, and infrastructure costs, making it ideal for new construction and retrofits.

Integrated Smart Building Control: MechoNet shades seamlessly integrate with Cisco's network infrastructure, enabling centralized management and automation alongside lighting, HVAC, and sensors for a cohesive smart building ecosystem.

Energy Efficiency and Sustainability: Low-voltage PoE technology minimizes energy consumption, aligning with green building standards (e.g., LEED) and reducing utility costs through efficient power delivery and daylight harvesting.

Scalability and Flexibility: Additional shades can be easily added to the network without rewiring, allowing cost-effective expansion and adaptation to evolving building needs.

Additional Benefits

- **Centralized Management**: Remote monitoring and control via Cisco's platform enable real-time adjustments, automation, and diagnostics, minimizing maintenance and downtime.
- **Enhanced Occupant Comfort:** Automated shades optimize natural light, reduce glare, and regulate heat gain, improving occupant wellness and productivity.
- **Cost Savings**: Lower installation, energy, and maintenance costs, combined with the elimination of proprietary control systems, reduce total cost of ownership.
- **Future-Proofing**: Built on standard Ethernet infrastructure, the solution is compatible with emerging smart building technologies, ensuring long-term relevance.
- **Programmability:** Shades can be programmed for time-based schedules, sensor-based automation, or user preferences, adapting to dynamic environmental conditions.
- **Robust Cisco Security Capabilities:** Cisco PoE switches incorporate advanced security features, including secure device onboarding, network segmentation, and encrypted communication. These protect MechoNet shades and other connected devices from cyber threats, ensuring data integrity and safeguarding smart building operations against unauthorized access or vulnerabilities.

Conclusion

The partnership between Cisco and Mecho redefines smart building shading solutions by combining Cisco's Power over Ethernet (PoE) switching with MechoNet's PoE-powered shades, addressing the limitations of traditional systems. Mecho's solutions (trusted by leading architects and designers for their reliability, performance, and seamless integration into modern building systems) enable a scalable, energy-efficient, and integrated approach. This collaboration empowers businesses to create intelligent, sustainable workspaces that enhance occupant experience, boost productivity, reduce costs, and support environmental responsibility, positioning them for success in the era of hybrid work.