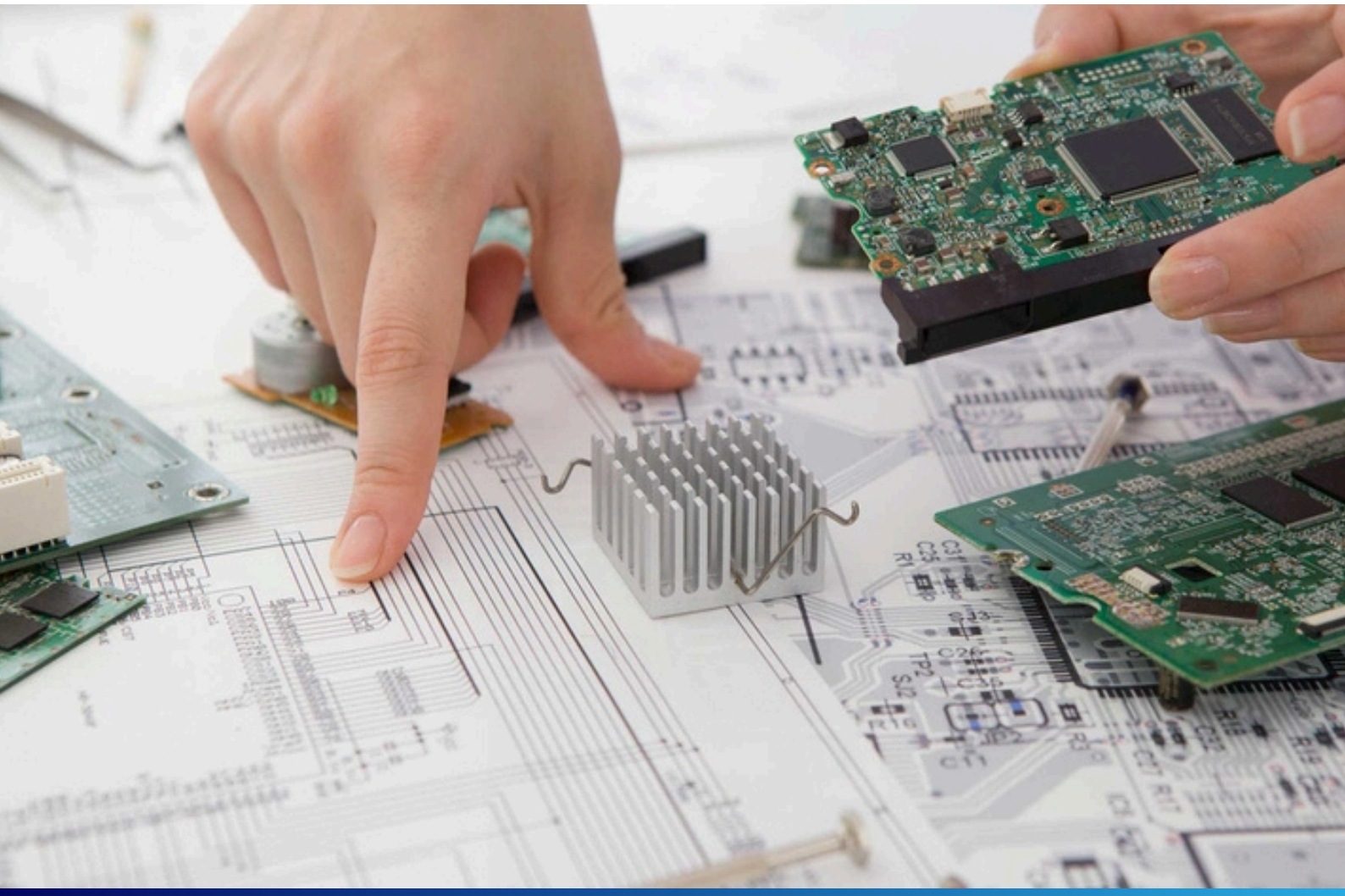
MHT Technologies

CASE STUDY



EPtAC Corporation

MHT Technologies

CASE STUDY

Project Details

EPtAC initiated a renovation of one floor within its multi-story office building, seeking to modernize the space with Power over Ethernet (PoE) lighting and shading systems. MHT Technologies was engaged to design and deliver a complete PoE infrastructure solution, including tunable white luminaires and intelligent controls to support flexibility, energy efficiency, and enhanced workplace experience.

Project Name: EPtAC Corporation

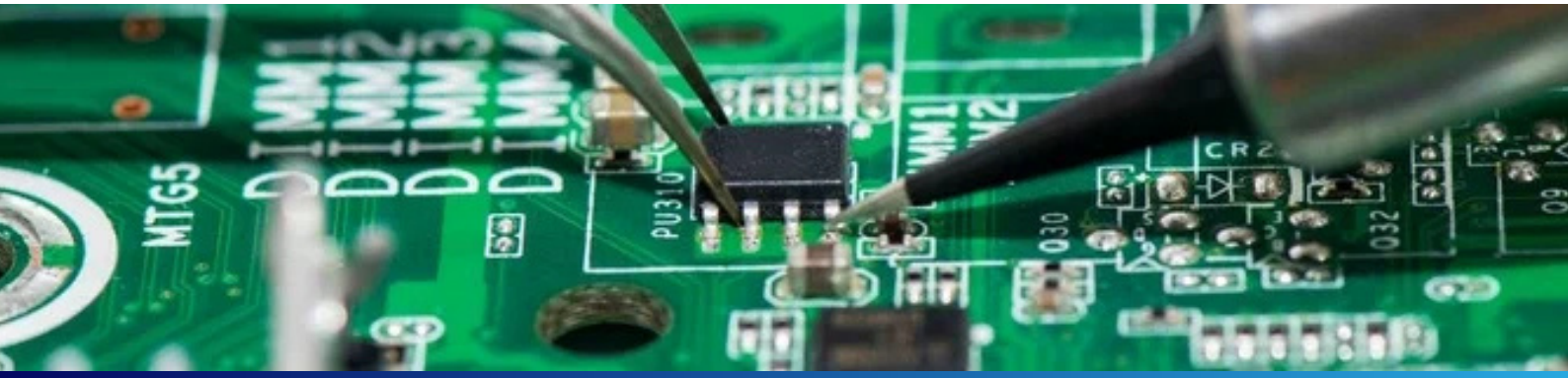
Vertical: Private Office

Date of Completion: December 2025

Location: Salem, NH

Primary Use Case: Office Environment

Project Size: Approximately 12,500 sq ft

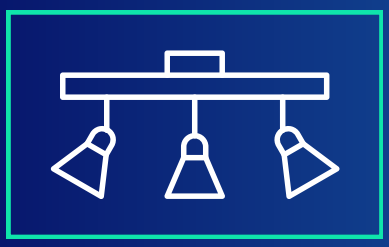


MHT Technologies

CASE STUDY

Project Needs

EPtAC was renovating one floor of its multi-story office building and sought a modern infrastructure that would support flexible lighting and automated shading. The organization wanted a streamlined system that reduced electrical complexity while enhancing workplace comfort and performance.



Install PoE-enabled energy-efficient fixtures

Install smart sensors & wall switches

Improve energy use & operational goals

Solution

MHT Technologies designed and delivered a complete PoE-based lighting and shading solution. The deployment included Inspextor hardware nodes, tunable white luminaires, and integrated controls to create a unified low-voltage infrastructure across the renovated floor.

Process

Following proposal development, EPtAC elected to incorporate tunable white luminaires to further enhance lighting quality and adaptability. MHT supplied all luminaires and PoE infrastructure components, coordinating installation to align with the renovation schedule and ensure a smooth project rollout.

Project Proposal → **Need Assessment** → **Installation/ Completion**

MHT Technologies

CASE STUDY

eptac
TRAIN. WORK SMARTER. SUCCEED.

Overview:

EPtAC's renovation project focused on transforming one floor of its office building into a modern, energy-efficient workplace. The organization selected Power over Ethernet (PoE) technology as the foundation for its lighting infrastructure, recognizing the benefits of simplified deployment and centralized control.
MHT Technologies partnered with EPtAC to design and deploy a scalable PoE platform that enhances lighting quality, operational efficiency, and overall occupant comfort. By integrating tunable white luminaires with intelligent controls, the upgraded space delivers flexibility and performance within a streamlined, low-voltage infrastructure.

Scope of Work:

The EPtAC project included the installation of 277 PoE lighting fixtures supported by 177 Inspextor nodes, creating a robust low-voltage lighting network throughout the 12,500 sq. ft. office floor. Tunable white luminaires were implemented to provide dynamic lighting environments tailored to workplace activities.

A total of 129 smart sensors and wall switches were deployed to enable occupancy-based automation and user control. Emergency and security lighting systems were maintained separately from the PoE infrastructure, while the primary lighting system operates within a unified framework designed for efficiency and centralized management.

The PoE architecture delivers consistent performance across the renovated floor while supporting adaptability as workplace needs evolve. Centralized low-voltage deployment simplifies system management and positions EPtAC to expand intelligent building capabilities over time.

Project Inception:

EPtAC's renovation presented an opportunity to implement a modern infrastructure aligned with evolving workplace expectations. By selecting PoE technology, the organization aimed to simplify electrical distribution, enhance lighting performance, and introduce intelligent control throughout the renovated floor.

- **Energy Efficiency:** PoE systems deliver low-voltage DC power and bi-directional data over a single Ethernet cable, helping reduce energy consumption and operational costs.
- **Enhanced Lighting Quality:** Tunable white luminaires allow precise adjustment of color temperature throughout the day, supporting productivity, visual comfort, and task-specific lighting needs across the office environment.
- **Simplified Deployment :** Low-voltage Ethernet infrastructure streamlines installation within an active renovation environment, enabling a more efficient and coordinated project rollout.
- **Flexible Control:** Integrated sensors and wall-mounted controls enable occupancy-based automation while preserving user flexibility, allowing lighting adjustments that align with operational requirements and individual preferences.
- **Scalability:** The PoE-based architecture provides a flexible foundation that can accommodate future workspace modifications, technology upgrades, or expanded intelligent building integrations without major infrastructure changes.

MHT Technologies

CASE STUDY

Smart Control and Integration:

The EPtAC deployment leverages MHT Technologies' Inspextor hardware platform to provide intelligent control of lighting and shading systems. The integrated solution supports centralized management while allowing localized adjustments where needed.

- **Tunable White Control:** Dynamic color temperature adjustments enhance visual comfort and support task adaptability throughout the office environment.
- **Automated Adjustments:** Integrated sensors automatically adjust lighting levels based on occupancy, helping maintain efficiency while reducing unnecessary energy use.
- **Operational Simplicity:** The PoE-based architecture centralizes control and reduces infrastructure complexity while maintaining consistent system performance.
- **User Control:** Wall-mounted controls allow employees to fine-tune lighting settings, balancing automation with individual flexibility.

Key Benefits and Outcomes:

- **Improved Energy Performance:** Efficient PoE lighting and smart controls reduce energy consumption while supporting modern operational goals.
- **Enhanced Workplace Experience:** Dynamic lighting and responsive controls create a more comfortable and adaptable office environment.
- **Modernized Environment::** The renovation establishes a flexible foundation aligned with contemporary office standards.
- **Infrastructure Efficiency:** Centralized low-voltage deployment simplifies management and future adjustments.

> **Our goal with this project was to modernize the workspace with intelligent lighting and controls that improve employee comfort while providing the flexibility and performance expected in today's office environments.**

MHT Technologies

CASE STUDY

Quick Facts

The NJOIT deployment demonstrates how government facilities can modernize infrastructure through phased PoE adoption, combining energy-efficient lighting with environmental monitoring to support both office and technical environments.

Key Benefits

IEnhances workplace performance through energy-efficient PoE lighting, tunable white technology, and intelligent controls. Dynamic lighting and occupancy-based automation create a more adaptable and comfortable office environment while simplifying infrastructure management. The centralized low-voltage platform establishes a flexible foundation that supports continued workplace evolution and future technology integration.

Customization

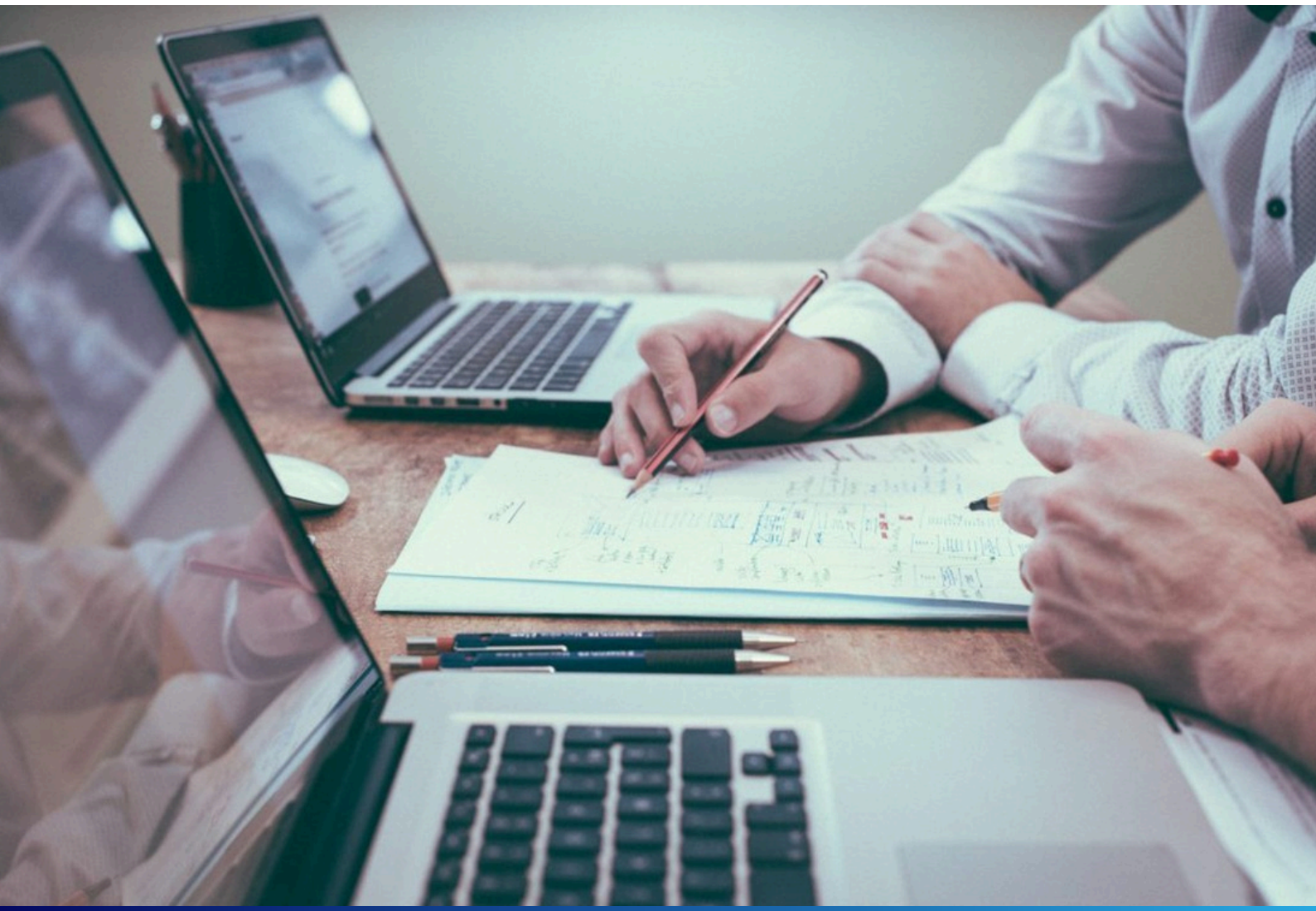
Energy-efficient

Control

Conclusion

EEPtAC's office renovation showcases the advantages of integrating PoE lighting and tunable white technology within a modern workplace. By implementing intelligent controls and scalable infrastructure, the organization has created a more adaptable, energy-efficient, and visually comfortable environment that supports productivity and day-to-day operational performance.

Through collaboration with MHT Technologies, EPtAC successfully transformed its renovated floor into a connected, performance-driven workspace built around intelligent power and centralized control. The upgraded infrastructure not only enhances lighting quality and flexibility today, but also provides a structured foundation capable of supporting future workplace enhancements as organizational needs evolve.



MHT Technologies

CASE STUDY

About MHT Technologies

MHT Technologies (MHT) was founded in 2009 with a focus on advancing low-voltage and Power over Ethernet (PoE) solutions for modern buildings. What began as MHT Lighting quickly evolved into a technology-driven organization specializing in intelligent infrastructure that powers connected environments.

Today, MHT delivers PoE hardware platforms, including its Inspextor nodes and controllers, enabling efficient lighting, environmental monitoring, and smart building integration across commercial, government, and enterprise spaces. By combining intelligent power distribution with scalable infrastructure design, MHT simplifies deployment, improves operations, and enhances overall building performance.

Headquartered in Manhattan, MHT operates a 55,000 sq. ft. engineering and manufacturing facility in Staten Island, holding ETL, UL, and ISO 9001:2015 accreditations. MHT designs and manufactures PoE and line-voltage lighting solutions while supporting clients through engineering expertise, system design, and project delivery.

AKRAM "AK" KHALIS

MHT Technologies CEO
& Inspextor Co-founder

> **Guiding MHT Technologies is about transcending limits for what intelligent infrastructure can achieve. My focus is on delivering powerful smart building solutions that drive efficiency, elevate performance, and help organizations operate with greater insight and control.**

Headquarters

241 West 37th Street, 12FL
New York, NY 10018

US Manufacturing

1961 Richmond Terrace
Staten Island, NY 10302

Contact

+1 718-524-4370
sales@mht-technologies.com