njoit

New Jersey Office of Information Technology

Intelligent Infrastructure Case Study

MHT Technologies

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Intelligent Infrastructure Case Study

Project Overview

The New Jersey Office of Information Technology (NJOIT) initiated a phased modernization of its approximately 35,000-square-foot facility in Trenton, New Jersey. Supporting government offices, data center operations, and warehouse environments, the project introduces intelligent lighting and environmental monitoring to improve efficiency, workplace comfort, and operational visibility.

MHT Technologies was selected to provide the facility's Power over Ethernet (PoE) lighting and control infrastructure, delivering a Cisco-enabled solution that supports centralized management, responsive lighting, and scalable technology integration across administrative and mission-critical environments.

Project Details

Project Name: New Jersey Office of Information Technology (NJOIT)

Vertical: Government

Publication Date: October 2026

Location: Trenton, New Jersey

Primary Use Case: Intelligent PoE lighting and environmental monitoring for government offices and data center infrastructure

Project Size: Approximately 35,000 square feet of renovated space

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Project Needs

NJOIT required an intelligent lighting infrastructure capable of supporting administrative offices and sensitive data center environments. The system needed to improve energy efficiency, provide centralized lighting control, and monitor environmental conditions while allowing upgrades to proceed without disrupting critical government operations.

Energy-Efficient Infrastructure
Establish a common PoE foundation for delivering power, connectivity, and intelligent lighting control across office and technical spaces.

Environmental Monitoring
Integrate smart sensors to monitor temperature, occupancy, and building conditions in administrative and data center environments.

Centralized System Management
Provide greater visibility and control through a network-based platform that supports efficient operations and future expansion.

Solution & Process

MHT Technologies designed a Cisco-enabled PoE lighting solution combining Inspextor nodes, intelligent fixtures, and environmental sensors. The phased deployment supports centralized control and flexible infrastructure expansion across office, data center, and warehouse environments.

Planning
Defined project requirements & developed a phased infrastructure strategy.

Deployment
Installed Phase 1 lighting & controls while preparing Phase 2 infrastructure.

Commissioning
Tested lighting controls & coordinated phased deployment to minimize disruption.

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Project Challenge

NJOIT required a modern lighting infrastructure capable of supporting administrative offices, data center operations, and warehouse environments within a unified platform. The phased deployment needed to improve lighting efficiency, environmental monitoring, and centralized management while minimizing disruption to mission-critical government operations.

Scope of Work

MHT Technologies designed a PoE lighting infrastructure supporting 555 fixtures across approximately 35,000 square feet. Phase 1 includes 266 fixtures and 152 Inspextor nodes, while Phase 2 adds 289 fixtures and 181 nodes. The complete system incorporates 204 smart sensors and wall switches.

The solution utilizes 25 Cisco Catalyst C9300-24H-E switches to provide the power and data backbone for MHT's Inspextor nodes and connected lighting fixtures. Together, these technologies support centralized lighting control, environmental monitoring, and scalable infrastructure across office and technical environments.

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Why Power over Ethernet?

Power over Ethernet (PoE) provides an efficient approach to modern building infrastructure by combining power, data, and intelligent control over a common Ethernet network. Rather than relying on separate lighting and control systems, PoE enables centralized management while simplifying deployment and supporting future technology expansion.

For NJOIT, this approach provides the flexibility to modernize government offices and technical environments through a coordinated, phased deployment.

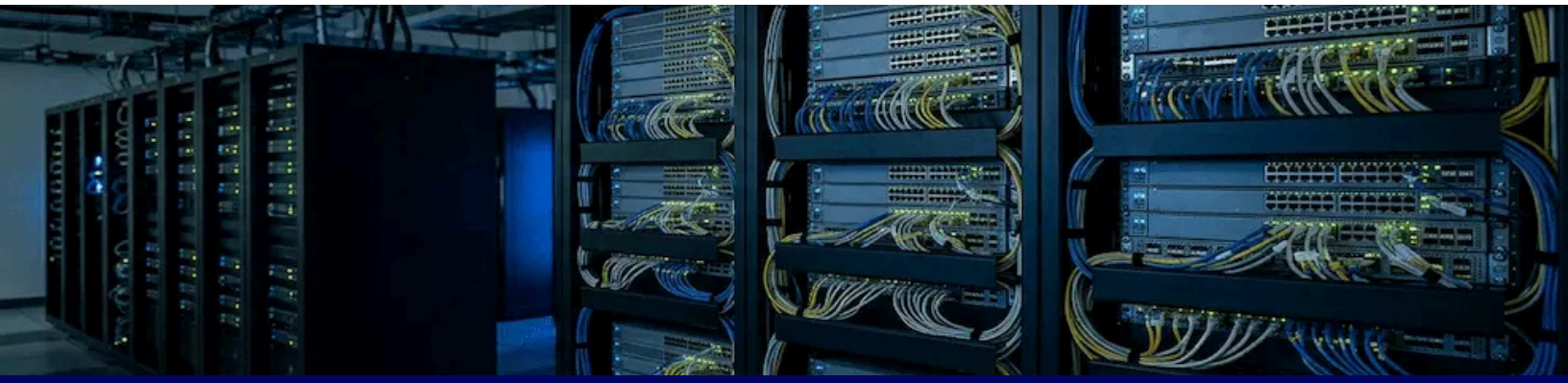
Unified Infrastructure
Lighting, sensors, and controls operate across a common Ethernet-based network, reducing infrastructure complexity.

Centralized Management
Lighting and environmental conditions can be monitored and managed through a centralized platform rather than isolated systems.

Flexible Control
Lighting schedules, occupancy response, and local settings can be adjusted to accommodate office and technical requirements.

Enterprise-Grade Network
Cisco Catalyst switches provide a reliable power and data foundation for connected lighting and control devices.

Scalable Architecture
The phased PoE infrastructure supports future technology upgrades and expansion across government facilities.



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Smart Control & Integration

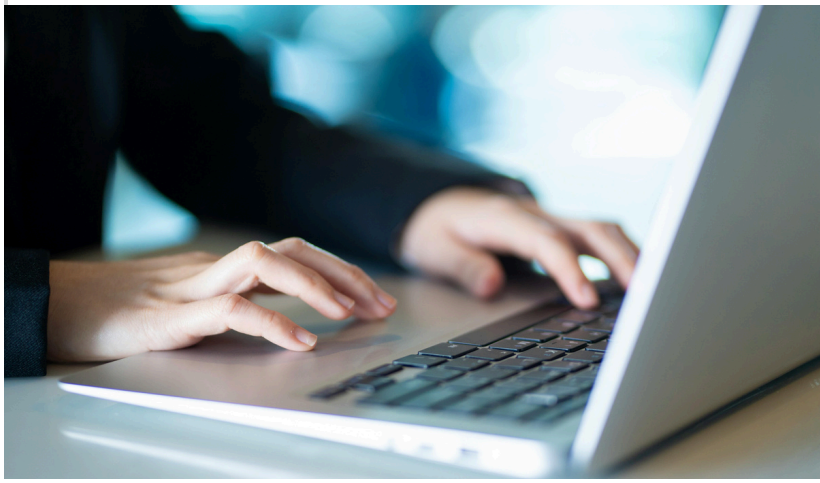
MHT Technologies' Inspextor hardware integrates with the network infrastructure to support intelligent lighting control and environmental monitoring across NJOIT's facility.

The connected platform provides centralized visibility into lighting and building conditions, helping facility personnel manage office environments while supporting the requirements of critical technical spaces.

- **Real-Time Monitoring:** Monitor connected lighting devices and environmental conditions from a centralized interface.
- **Automated Scheduling:** Configure lighting schedules around building operations and space requirements.
- **Occupancy-Based Control:** Smart sensors adjust lighting based on occupancy to reduce unnecessary energy use.
- **Local User Control:** Wall switches allow staff to adjust lighting where manual operation is preferred.
- **Environmental Monitoring:** Integrated sensors provide temperature and environmental data to support facility operations.

Key Benefits & Outcomes:

- Improved workplace comfort
- Centralized facility management
- Greater operational visibility
- Simplified long-term maintenance
- Energy-efficient lighting
- Scalable government infrastructure



> “NJOIT has deployed MHT Technologies’ PoE lighting and environmental monitoring system in the office and utility areas of our Trenton facility, with deployment continuing into our data center. The system provides centralized lighting control and real-time monitoring of facility conditions.”
>
> — **Anthony Ritardi**, Data Center & Office Facilities Manager, NJOIT

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Quick Facts

The NJOIT project demonstrates how government facilities can modernize through phased PoE adoption, combining intelligent lighting, environmental monitoring, and Cisco network infrastructure. The deployment supports administrative offices and critical technical environments while creating a scalable foundation for centralized building operations.

35,000 sq. ft. of renovated office space	**555** PoE-connected lighting fixtures	**333** Inspextor node lighting controllers
204 smart sensors and wall switches	**25** Cisco Catalyst C9300-24H-E switches	**2** phases of infrastructure deployment

Conclusion

The New Jersey Office of Information Technology demonstrates how intelligent infrastructure can modernize government facilities while supporting demanding operational environments. By integrating lighting, sensing, and control through a Power over Ethernet platform, the project establishes a connected foundation supported by Cisco network technology.

Across approximately 35,000 square feet, the two-phase deployment encompasses 555 connected fixtures, 333 Inspextor nodes, and 204 smart sensors and wall switches, providing a coordinated infrastructure for lighting control and environmental monitoring.

The phased approach allows NJOIT to modernize administrative offices while extending intelligent infrastructure into data center and warehouse environments. Centralized management, occupancy-based lighting, and environmental monitoring support more efficient operations and greater visibility into building conditions.

NJOIT illustrates the growing role of intelligent infrastructure in government facilities. The project demonstrates how network-based building technologies can support workplace comfort, operational efficiency, and the specialized requirements of mission-critical environments while providing flexibility for future expansion.

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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 enables 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, with ETL and UL certifications and ISO 9001:2015 accreditation. 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, 12th Floor
New York, NY 10018

US Manufacturing

1961 Richmond Terrace
Staten Island, NY 10302

Contact

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