

# LANTRONIX®

## INDUSTRY:

## Education

POE Lighting  
Intelligent Building, Smart Building



### Success Highlights

- Reduced energy usage 41.4 percent
- Cut annual energy costs by more than \$33,000
- Improved operational efficiency
- Increased building security
- Provided insights from predictive analytics

### Case Study Overview

A large school district serving the greater Austin, Texas area utilized Lantronix 24-Port Managed Gigabit Ethernet Power-over-Ethernet++ Switches for Intelligent IoT Lighting and integration with HVAC equipment, automation systems, cameras and other devices. With its Intelligent Lighting solution, the school district reduced energy costs, gained operational efficiencies and increased building security.

“Lantronix’s Intelligent Lighting solution powers more than 4,700 lighting devices at the school district, providing a 41 percent reduction in energy usage while providing a better-lit environment for students.”

– Brian Johnson, Director of Sales and Business Development, Bryte Light

### CHALLENGE: Increase Efficiency, Cost-Savings and Security with POE Lights

The school district worked with Bryte Light, a Lantronix Value-Added Reseller (VAR), with support from BryComm, a Texas-based low-voltage contractor, to create and install the Intelligent Lighting solution, which includes the Lantronix 24-Port Managed Gigabit Ethernet PoE++ Switch. For installation in the technologically advanced buildings, the lighting solution needed to include:

- Interoperability between the lighting, HVAC, automation systems, fire alarm, security cameras and access control
- Automated notifications for decision makers from intelligent sensors in the smart lighting
- Ability to control each individual fixture via local keypads or automation
- Sensor to provide information on Bluetooth Low Energy (BLE) connectivity, occupancy, photocell and humidity and temperature capabilities



### Lantronix 24-Port Managed Gigabit Ethernet PoE++ Switch

Ideal for Intelligent Lighting and automated environments with LED lighting or digital signage, the Lantronix 24-port Managed Gigabit Ethernet Power-over-Ethernet++ (PoE++) Switch (SM24TBT2DPA) is a high-performance, Layer 2 managed switch with 52 Gbps switching capacity. The SM24TBT2DPA can also be used to supply power and connectivity to other IoT devices, such as building automation systems, HVAC equipment, access control, digital signage, wireless access points (WAPs) and surveillance security systems.

For more information, visit <https://www.lantronix.com/products/sm24tbt2dpa/>



## SOLUTION: Lantronix 24-Port Managed Gigabit Ethernet PoE++ Switch

The Lantronix 24-port Managed Gigabit Ethernet Power-over-Ethernet++ (PoE++) Switch (SM24TBT2DPA) is a high-performance, Layer 2 managed switch with 52 Gbps switching capacity. It is ideal for use in Intelligent LED lighting, digital signage and other applications with higher power needs. Lantronix's Network Web Interface provides a rich user interface to easily configure the switch locally, run diagnostics and view a device-level network topology map to provide additional control and management of the intelligent lighting system. As well, soft reboot and auto power reset ensure the LED lighting can be easily managed with maximum uptime.

“ BryComm is pleased to be part of the first state-of-the-art smart school for K-12 in the state of Texas, if not the country.”

– Cory Brymer, Founder and CEO, BryComm

## RESULTS: 41.4 Percent Reduction in Energy Usage

Utilizing the Lantronix POE++ Lighting Switch, the school district exceeded its energy savings goals, achieving a 41.4 percent reduction in energy usage. It also significantly reduced its carbon footprint by 129,726 kWh annually, which equals approximately 0.85 pounds of carbon, the equivalent of 177 mature trees cleaning the air.

This energy usage reduction results in an annual savings of \$33,665. As well, the lighting lifespan is double that of traditional lighting, reducing material costs and eliminating the 40-hour-per-week maintenance requirement to change light bulbs. In addition, because the lighting hue can be adjusted, it also provides a better learning environment for students, including Tunable White Lighting with Correlated Color Temperature (CCT).

### Results included:

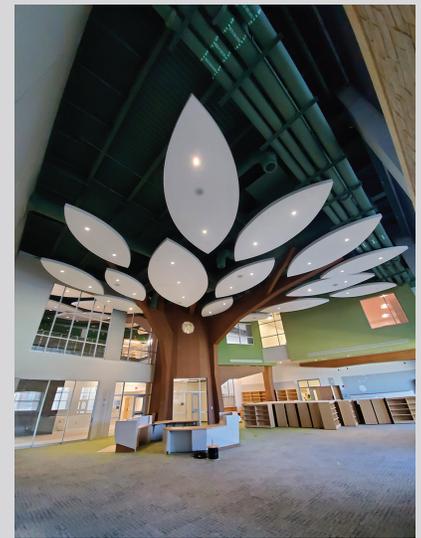
- Greater control of lighting via centralized server
- Tunable classroom lighting from warm to cool (automated or via local keypad)
- Automated notifications from intelligent sensors
- Remote control via laptop or tablet
- Predictive analytics for operational efficiency
- Lower maintenance requirements than traditional lighting
- Integration with HVAC equipment and automation systems
- Increased building security via automated lighting
- Reduced material and maintenance costs

## About Bryte Light

Bryte Light is a technology provider delivering advanced lighting solutions to clients throughout the state of Texas and beyond. Its team has more than 35 years of experience in lighting and controls as well as more than 50 years of integration experience. For more information, visit <https://bryte-light.com>

## About BryComm

Founded in 2008, BryComm is a leader in delivering innovative technology solutions and services to organizations throughout the Southwestern United States. They specialize in the design, installation and maintenance of multiple types of infrastructure networks designed to meet current and future needs.



## Benefits of Using Lantronix PoE++ Switches for Intelligent Lighting

Utilizing Lantronix PoE++ Switches leverages low-voltage PoE for decreased lighting installation and usage costs. It also delivers intelligent lighting by providing a data connection that makes it possible to remotely control the on/off, brightness, color temperature and hue (warm or cool).

## About Lantronix

Lantronix Inc. is a global provider of secure turnkey solutions for the Internet of Things (IoT) and Remote Environment Management (REM), offering Software as a Service (SaaS), connectivity services, engineering services and intelligent hardware. Lantronix enables its customers to accelerate time to market and increase operational up-time and efficiency by providing reliable, secure and connected Intelligent Edge IoT and Remote Management Gateway solutions.

**LANTRONIX**<sup>®</sup>

[lantronix.com/about-us/contact/](https://lantronix.com/about-us/contact/)