

Lighting the Road to Smart Cities

Location

Australia

Industry

**Smart City
Infrastructure**

Application

Smart Poles

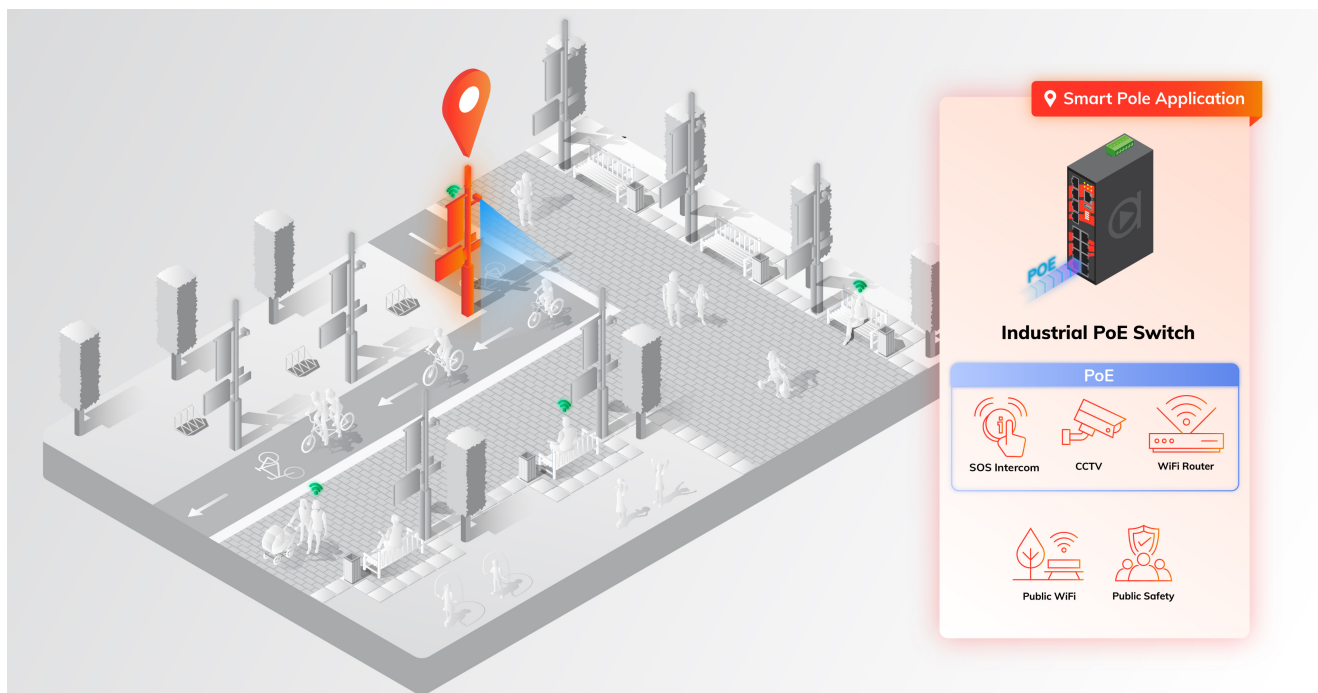
Background

Smart poles have become part of a smart city infrastructure that offers numerous benefits to local councils and residents. The deployment of smart poles results in the creation of a cloud based platform for a wide range of innovative IoT applications, including, but not limited to, energy-efficient lighting, public safety via video surveillance, emergency services, environmental monitoring (e.g. CO2 emissions), digital signage (e.g. online advertising), public WiFi hotspot, and USB charging. Therefore, local councils have viewed these smart poles as their assets instead of expenditure to be managed due to new revenue opportunities. However, in order for smart poles to function their full potential, proper network design must be in place.

The Challenges

Below are some key challenges faced during the design phase of this project.

- Providing sufficient network bandwidth for live streaming and event-based recording of each high resolution IP camera
- Fulfilling the PoE demand for all connected Powered Devices on each smart pole
- Capable of withstanding extreme temperatures
- Offering flexible port density for different network applications



Antaira's Solutions

Antaira provides its customers with a variety of port density options, which can be scaled easily to meet network expansion requirements. All these switch models support high bandwidth applications and can work in extreme temperatures (i.e., -40° ~ 75°C). In order to have an optimized network performance, VLAN segmentation was implemented to ensure that both video and VoIP data traffic could be entirely separated from other user data traffic.

From a Cybersecurity perspective, VLAN segmentation reduces the risk of exposing vulnerabilities of surveillance equipment. With built-in PoE functionality, each switch port provides up to 30W power output, which can easily power up a Powered Device (e.g., IP camera or emergency intercom) along with the “Ping Alive” feature that increases the network reliability of a Powered Device by resetting its PoE power.

Why Choose Antaira

Antaira's commitment is to exceed its customer's expectations by offering high quality industrial Ethernet products and outstanding support services. Antaira has demonstrated its capability of delivering comprehensive network solutions that ensure the fulfillment of security, scalability, and redundancy demands for any critical application.

Product Used



LMP-0601G-SFP-T

6-Port Industrial PoE+ Gigabit Managed Ethernet Switch

- 4*10/100/1000Tx (30W/port)
- 1*10/100/1000Tx
- 1*100/1000 SFP Slot
- EOT: -40°~75°C



LMP-1002G-SFP-T

10-Port Industrial PoE+ Managed Ethernet Switch

- 8*10/100/1000Tx (30W/port)
- 2*100/1000 SFP Slot
- EOT: -40°~75°C



LMP-2004G-SFP-T

20-Port Industrial PoE+ Managed Ethernet Switch

- 16*10/100/1000Tx (30W/port)
- 4*100/1000 SFP ports
- 48~55V DC Power Input
- EOT: -40°~75°C

About Antaira

Antaira Technologies is a leading developer and manufacturer that provides high-quality industrial networking and communication product solutions. Since 2005, Antaira has offered a full spectrum of product lines that feature reliable Ethernet infrastructures, extended temperature tolerance, and rugged enclosure designs. Our product lines range from industrial Ethernet switches, industrial wireless devices, Ethernet media converters, and serial communication devices. Our vast professional experience allows us to deploy a wide array of products worldwide in mission-critical applications across various markets, such as, automation, transportation, security, oil & gas, power/utility, and medical. Antaira is ISO9001 certified.

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