antaira®
making connectivity simple...

Industrial Networking for Intelligent Transportation

Implementing a Robust Communication Infrastructure

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making connectivity simple...

THE TREND OF INDUSTRIAL NETWORKING IN INTELLIGENT TRANSPORTATION

Overview

Transportation is one of the most important infrastructures of our daily lives. As an increasing number of individuals utilize the transportation system, daily commute times become longer which is why improving efficiency is a vital concern. Therefore, traffic management and technology is becoming more sophisticated and our transportation system more complex. To keep traffic operating more efficiently, applications such as electronic toll collection, weigh station, intersection monitoring, passenger rail, and tunnel must have reliable, real-time network communication with Traffic Management Centers (TMC) and preceding networks in order to construct a successful intelligent transportation system.

Industrial Ethernet Switches

Managed

Unmanaged

PoE

Industrial Wireless (IEEE 802.11)

Panel Mounts

Pre-Configured Bridge

Outdoor IP67

Industrial Media Converters

100Mbp Fiber

Gigabit Fiber

Rack Chassis

Serial Connectivity

Serial Device Servers

Serial to Wireless Device Servers

USB to Serial Hubs

ANTAIRA'S 5 KEY INDUSTRIAL NETWORKING SOLUTIONS AND BENEFITS

1 Scalability and Flexibility

The maturity of Ethernet technology has significantly improved the ability to connect and transmit legacy technology that is still present within the transportation industry. This is because data can be retrieved anywhere to gain remote access, control and monitoring, as well as, manage and respond to any real-time issues.
Antaira provides a wide array of industrial Ethernet networking solution products which includes industrial Ethernet switches, Ethernet fiber media converters, industrial wireless devices, and serial-to-Ethernet or wireless device servers. For all of these product lines, Antaira offers connectivity solutions in a variety of port configurations and bandwidth options for 10/100MB or Gigabit copper, fiber, SFP and PoE technologies.

2 Reliability

Reliability is pivotal when dealing with an intelligent transportation infrastructure. Network downtime and loss of communication are of the greatest concerns within the transportation industry, because downtime or loss of data can result in traffic congestion and a variety of safety concerns. Networking equipment must be held to the highest industrial standards to ensure damage resistance from harsh outdoor environments and constant operation. Antaira's industrial networking solution products have passed a variety of certifications specifically designed and developed for industrial use within harsh environments to ensure uninterrupted data transmission.

3 Self-Healing Redundant Network

A robust redundant network ensures systems and equipment are functional at all times, even during an unforeseen event. Antaira's industrial managed Ethernet switches and latest serial device server series support various redundancy features to maximize communication providing near instantaneous responses. The built-in network redundant protocol within the managed switches provide a ring redundancy network topology solution to reroute data communication if any disconnection should occur in the network, and continuously perform non-stop networking 24/7. Antaira provides an open standard Ethernet Ring Protection Switching (ERPS) network redundancy protocol to ensure fast network recovery times of less than 50ms and maximize network uptime.

4 Ruggedized and Long Lasting

Rugged and robust designs are critical for equipment used within the intelligent transportation industry due to their harsh environments. Antaira's industrial networking solution products are designed with IP30/40/50 or IP67 rated weatherproof housing, robust metal casing, wide operating temperature tolerance, and vibration proofing, making them suitable for use in tough industrial environments. In addition, all industrial networking solutions products are designed and developed with high MTBF, EMI noise immunity and serial isolation protection.

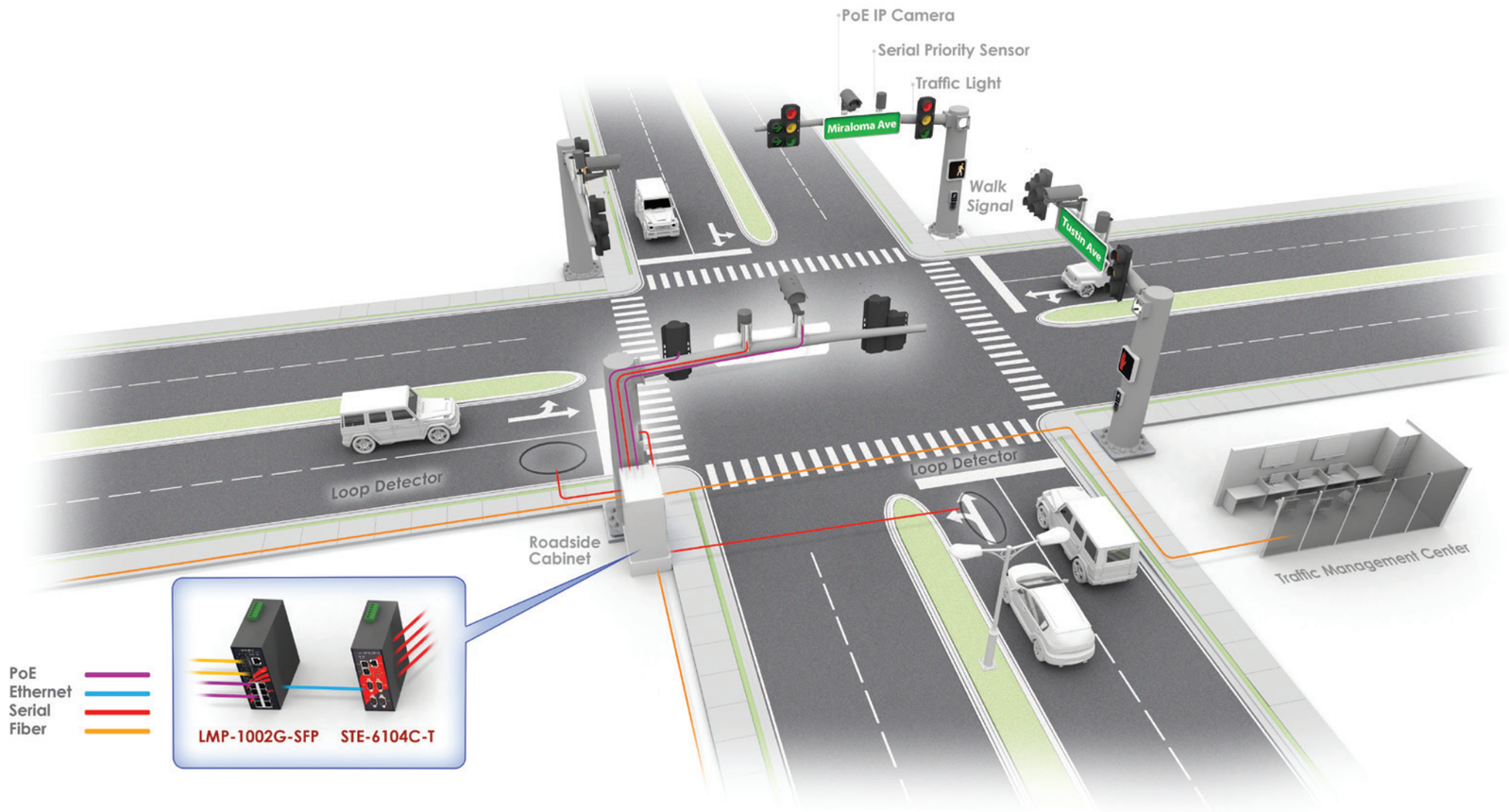
5 Making Connectivity Simple

Building a complete robust industrial network that spans all sections of intelligent transportation such as, electronic toll collection, weigh station, intersection monitoring, passenger rail, and tunnel is essential. Performing excellent real-time remote network management and providing enhanced features for reducing troubleshooting and downtime are major benefits to engineers within these industry segments. Antaira's industrial Ethernet switches, industrial wireless devices, and industrial serial device servers are pre-loaded with a user-friendly web console interface to allow for easy adoption, as well as, quick setup and deployment to perform real-time and remote network management. Antaira not only provides simple connectivity solutions to support ITS applications, but also a low total cost of ownership to users.

Intersection Monitoring

Overview

Traffic signals have endured for more than 100 years and are a critical part of the mobile transportation system that keeps the global economy functioning. The traffic intersection is responsible for providing drivers with a safe and efficient means of navigating through cross traffic. Advancements in the monitoring and control of available traffic equipment have greatly improved over the last 20 years allowing for a higher volume of traffic to pass through intersections more safely and efficiently. This is due to the ability to gather more information from edge level devices rather than solely relying on outdated timer systems.



Application

A traffic controller is able to utilize input statistics and information from sensors and other devices to provide data about the quantity of vehicles and pedestrians waiting at a traffic intersection. An industrial Ethernet switch can expand the number of connection points for all Ethernet based field equipment. Beyond standard connections, Power over Ethernet (PoE) enabled switches can provide power to cameras, wireless access points and other devices. The traffic controller can then use data to make adjustments by lengthening green lights or skipping turn signal phases when no vehicles are present in order to alleviate traffic.
All information needs to be brought back to a Traffic Management Center (TMC) for more management and control capabilities. Managed Ethernet switches with fiber optic connections in each field traffic cabinet provides long distance communication at high speeds and infrastructure redundancy to ensure data arrives at the TMC. As our transportation system further evolves into an intelligent transportation system the need for higher speed communication and network redundancy is critical in maintaining a fast and reliable network.

Challenges

- Open network technology standard
- Real-time data transmission
- Industrial grade vibration resistance
- Redundant hardware for 24/7 operation
- Wide range of harsh outdoor environments
- Remote access, control and monitoring
- Flexible network layouts
- Multiple communication mediums
- High MTBF network equipment to ensure reliability

Application Requirements

- Industrial grade networking devices to perform under harsh environments
- Redundant self-healing network with fiber optic communication
- Remote operation, control and monitoring of various traffic management devices
- Reliable real-time data routing with built-in network management software
- Integration of video surveillance systems
- Alarms and warnings to alert personnel of potential issues
- Capability to combine data from different communication mediums

Antaira's Solutions & Benefits

Antaira's Industrial Managed Ethernet Switch Series provides layer 2 network management software allowing users to remotely monitor and manage the network. Managed switches provide standard features such as QoS, SNMP, IGMP, email alerts and IEEE 802.1Q. Additional PoE features, such as, remote PoE power management and automatic end device power recovery can also be managed.

Antaira's Industrial Serial Device Server Series provides multiple RS232/422/485 connections bridging legacy serial measurement devices to transmit data back and forth by utilizing built-in Real COM software or a TCP socket function to remotely monitor from the control center.

Key Products

LMP-1002G-SFP Series

10-Port Industrial PoE+ Managed Ethernet Switch
- 8*10/100/1000Tx + 2*100/1000Fx dual rate SFP ports
- Network Redundancy Support: RSTP, MSTP and G.8032 ERPS
- Network Management : SNMP, QoS, VLAN and IGMP support

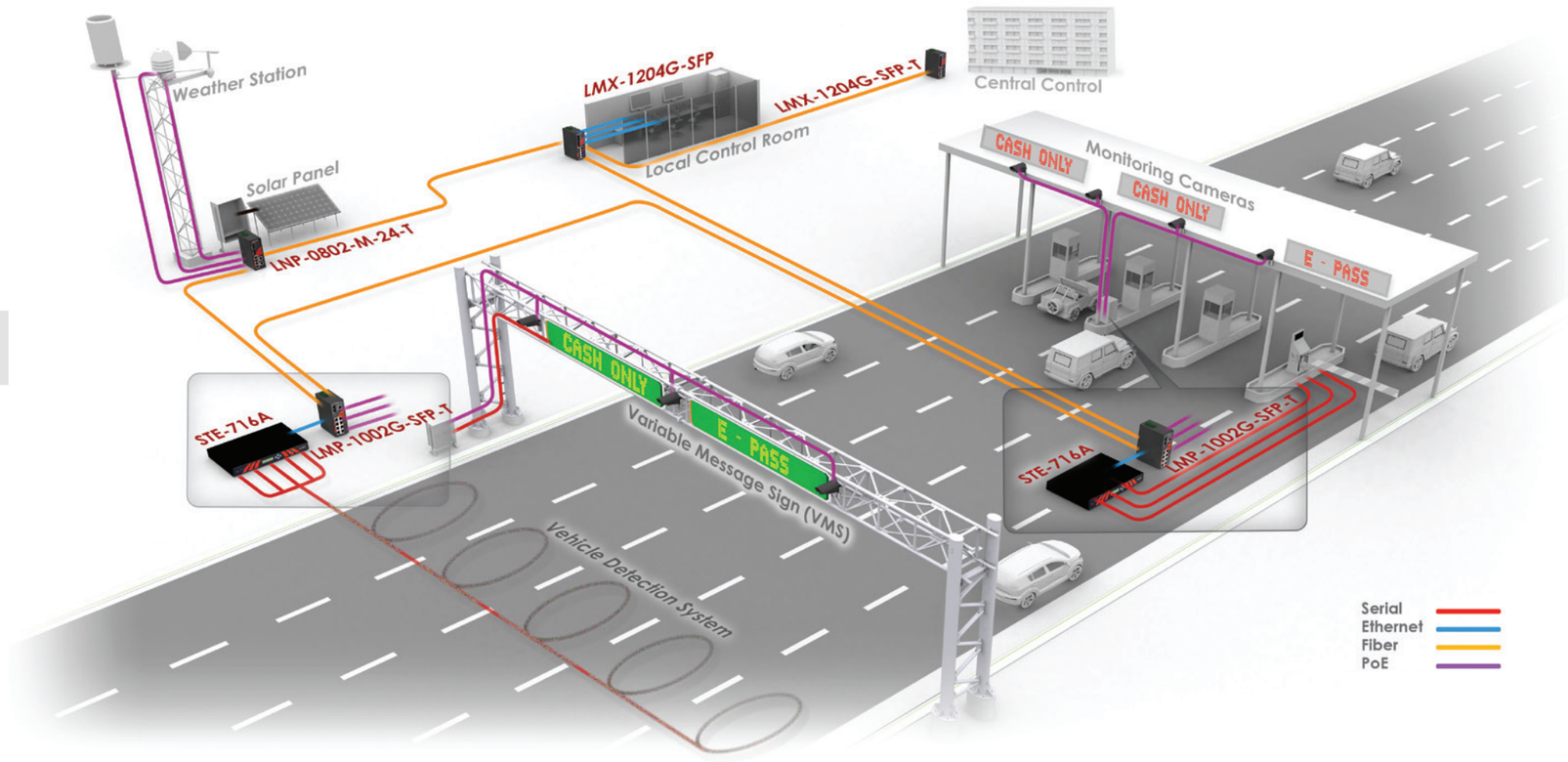
STE-6104C-T

4-Port RS232/422/485 Serial Device Servers
- Dual 10/100Tx LAN ports support daisy chain and network redundancy
- Flexible Operation Mode Support: Virtual COM, TCP/UDP server/client
- Multiple configuration options for either Web Console, Telnet, or Windows Utility

Toll Plaza

Overview

Implementation of toll roads in traffic congested locations is becoming increasingly more common. Toll roads provide multiple advantages over other transportation systems, such as, the ability to not have to increase local taxes, reduction in commute time and pollution, and safer travel. Technology advancements allow traffic to flow freely, further increasing the efficiency of toll plazas. This is made possible due to the extensive amount of external measurement, recording and information devices that are located throughout the toll plaza gathering a multitude of data. Among these devices serial communication is still widely used due to its low cost and high reliability. The Ethernet standard data communication can still be utilized to collect and transport serial data, as well as, provide additional management features to the network.



Application

Toll plazas contain different types of communication, control, and monitoring devices to effectively manage the infrastructure. Devices such as vehicle messaging signs, loop detectors, video monitoring, weather stations, and toll collection booths provide a great deal of data in a variety of communication mediums that require connectivity. Furthermore, there is a growing trend moving toll roads toward Electronic Toll Collection (ETC) and Open Road Tolling (ORT). The ability to perform ETC and ORT reduces traffic bottlenecks and allows travelers to pay tolls without stopping, thus increasing toll collection efficiency and keeping highway congestion to a minimum.
The constant flow of data sent to and from different locations within the toll plaza can benefit from a managed switch fiber backbone.
Fiber optics provide hardware advantages for long distance communication, swappable SFP fiber connectors, and noise immunity for data integrity. Additionally, managed units provide features for advanced control and oversight of the network that assist in network redundancy with sub second recovery times, Quality of Service (QoS), email event notifications and remote management.

Challenges

- Real-time data transmission
- Industrial grade vibration resistance
- Harsh environment with temperature concerns
- Multiple communication mediums
- High MTBF network equipment to ensure reliability

Application Requirements

- Industrial grade networking devices to perform under harsh environments
- Capability to combine data from different communication mediums
- Remote operation, control and monitoring of various traffic management devices
- Reliable real-time data routing with built-in network management software
- Enable integration of video surveillance systems
- Alarms and warnings to alert personnel of potential issues

Antaira's Solutions & Benefits

Antaira's Industrial Managed Ethernet Switch Series provides layer 2 network management software allowing users to remotely monitor and manage the network. Managed switches provide standard features such as QoS, SNMP, IGMP, email alerts and IEEE 802.1Q. Additional PoE features, such as, remote PoE power management and automatic end device power recovery can also be managed.

Antaira's Industrial Serial Device Server Series provides multiple RS232 connections bridging legacy serial measurement devices to transmit data bi-directionally and allows users to set up a ring topology network for dual data redundancy.

Key Products

STE-716 Series

16-Port RS232/422/485 Serial Device Servers
- Dual 10/100Tx LAN ports support daisy chain and network redundancy
- Flexible Operation Mode Support: Virtual COM, TCP/UDP server/client
- Multiple configuration options for either Web Console, Telnet, or Windows Utility

LMX-1204G-SFP Series

12-Port Industrial Managed Ethernet Switch
- 8*10/100/1000Tx + 4*100/1000Fx dual rate SFP ports
- Network Redundancy Support: RSTP, MSTP and G.8032 ERPS
- Network Management : SNMP, QoS, VLAN and IGMP support

LNP-0802-24 Series

8- Port Industrial PoE+ Unamanaged Ethernet Switch with Low Voltage Input
- 6*10/100Tx + 2*100Fx (SC/ST) multi-mode or single-mode
- IEEE 802.3af/at compliant up to 30 Watts per port
- Dual fiber ports for daisy chain communication

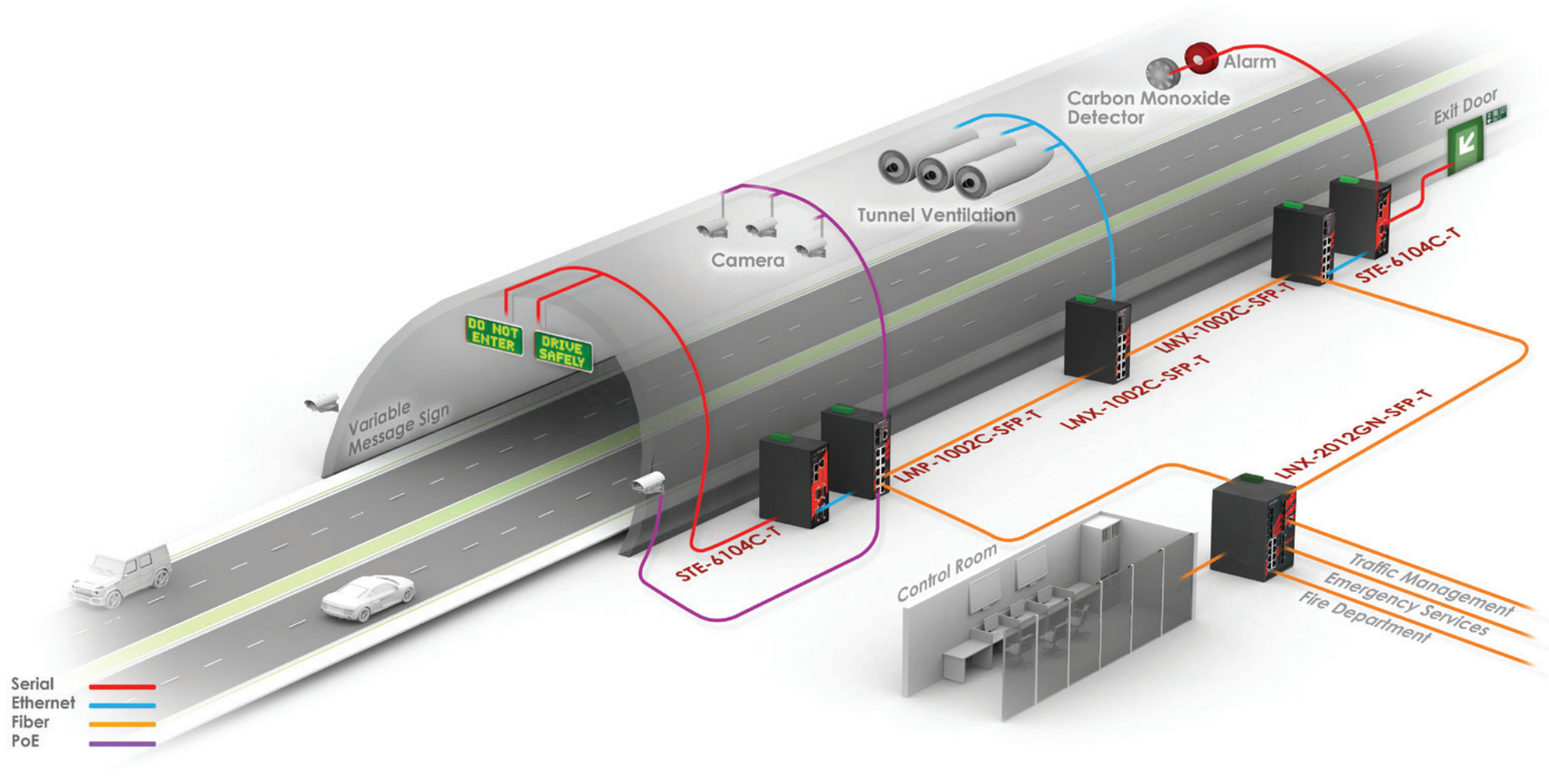
LMP-1002G-SFP-T

10- Port Industrial PoE+ Gigabit Managed Switch
- 8*10/100/1000Tx (30W/Port) + 2*100/1000 SFP slots for fiber
- Redundant Ring Network Support: RSTP, STP and G.8032 ERPS
- Network Management : SNMP, QoS, VLAN and IGMP support

Tunnel

Overview

The need for more accurate real- time data collection and monitoring of the transportation infrastructure is rapidly increasing. The major aim of building a smarter, safer and more reliable system has been gaining traction for some time and smarter vehicles on the road are helping push this to reality. Intelligent transportation solutions for tunnels require management of vehicle traffic and control systems including multiple infrastructure systems. These systems need to maintain and monitor critical tunnel equipment, which is a challenge in their environment. To meet tunnel safety requirements, reliable industrial grade networking equipment must provide real-time communication to and from devices throughout the tunnel system. With features such as network redundancy, noise immunity and event notifications, traffic can be reliably and efficiently monitored and controlled.



Application

Tunnel safety is top priority when it comes to receiving correct, accurate and reliable information from the tunnel infrastructure. Industrial networking equipment is the key to this success because it provides resiliency and redundancy. Networking cabinets that provide various commands and control to all external devices for ventilation, road and signage lighting, redundant power, air quality, water drainage, fire detection, and emergency communication are found in each section of the tunnel. CCTV cameras placed along the tunnel entrance, interior, and exit are also continuously monitoring traffic density, accidents, and other vital conditions. All systems within the tunnel must be constantly monitored in order to alert passengers and other personnel of possible issues.
Not only do switches need to withstand rugged conditions within the tunnel itself, but control centers need data to be delivered in real-time so action can be taken if unfavorable conditions arise. Therefore, a redundant ring network infrastructure can be utilized to prevent any single point of failure, assuring the top most reliability. Fiber optics between the tunnel and control center can also be utilized for noise immunity and long distance communication. This will prevent the loss and corruption of data from electrical noise that may be generated in the tight confines of the tunnel.

Challenges

- Redundant network for 24/7 operation
- Real-time traffic information
- Reduced emergency response times
- Shorter travel times
- Reduced evacuation times
- Electromagnetic Interference (EMI) environment
- Industrial grade vibration resistance
- Increased security
- Ability to transmit data over long distances
- Wide temperature and humidity concerns

Application Requirements

- Industrial grade networking devices to perform under harsh environments
- Self-healing network redundancy to prevent single point of failure
- Capability to monitor all distributed monitoring equipment of a widely distributed transportation infrastructure
- Reliable real-time data routing with built-in network management software
- Integration of video surveillance systems
- Expandability

Antaira's Solutions & Benefits

Antaira's Industrial Managed Ethernet Switch Series provides layer 2 network management software allowing users to remotely monitor and manage the network. Managed switches provide standard features such as QoS, SNMP, IGMP, email alerts and IEEE 802.1Q. Additional PoE features, such as, remote PoE power management and automatic end device power recovery can also be managed.

Antaira's Industrial Serial Device Server Series provides single or multiple RS232/422/485 connections bridging legacy serial measurement devices to transmit data back and forth by utilizing built-in Real COM software or a TCP socket function to remotely monitor from the control center.

Key Products

STE-6104C-T

4-Port RS232/422/485 Serial Device Servers
- Dual 10/100Tx LAN ports support daisy chain and network redundancy
- Flexible Operation Mode Support: Virtual COM, TCP/UDP server/client
- Multiple configuration options for either Web Console, Telnet, or Windows Utility

LMP-1002C-SFP Series

10-Port Industrial PoE+ Managed Ethernet Switch
- 8*10/100Tx + 2*10/100/100Tx or 100/1000Fx dual rate SFP ports
- 8-ports of IEEE 802.3af/at compliant up to 30 Watts per port
- Network Redundancy Support: RSTP, MSTP and G.8032 ERPS

LMX-1002C-SFP Series

10-Port Industrial PoE+ Managed Ethernet Switch
- 8*10/100Tx + 2*10/100/100Tx or 100/1000Fx SFP ports
- Class of service data prioritization
- Network Redundancy Support: RSTP, MSTP and G.8032 ERPS

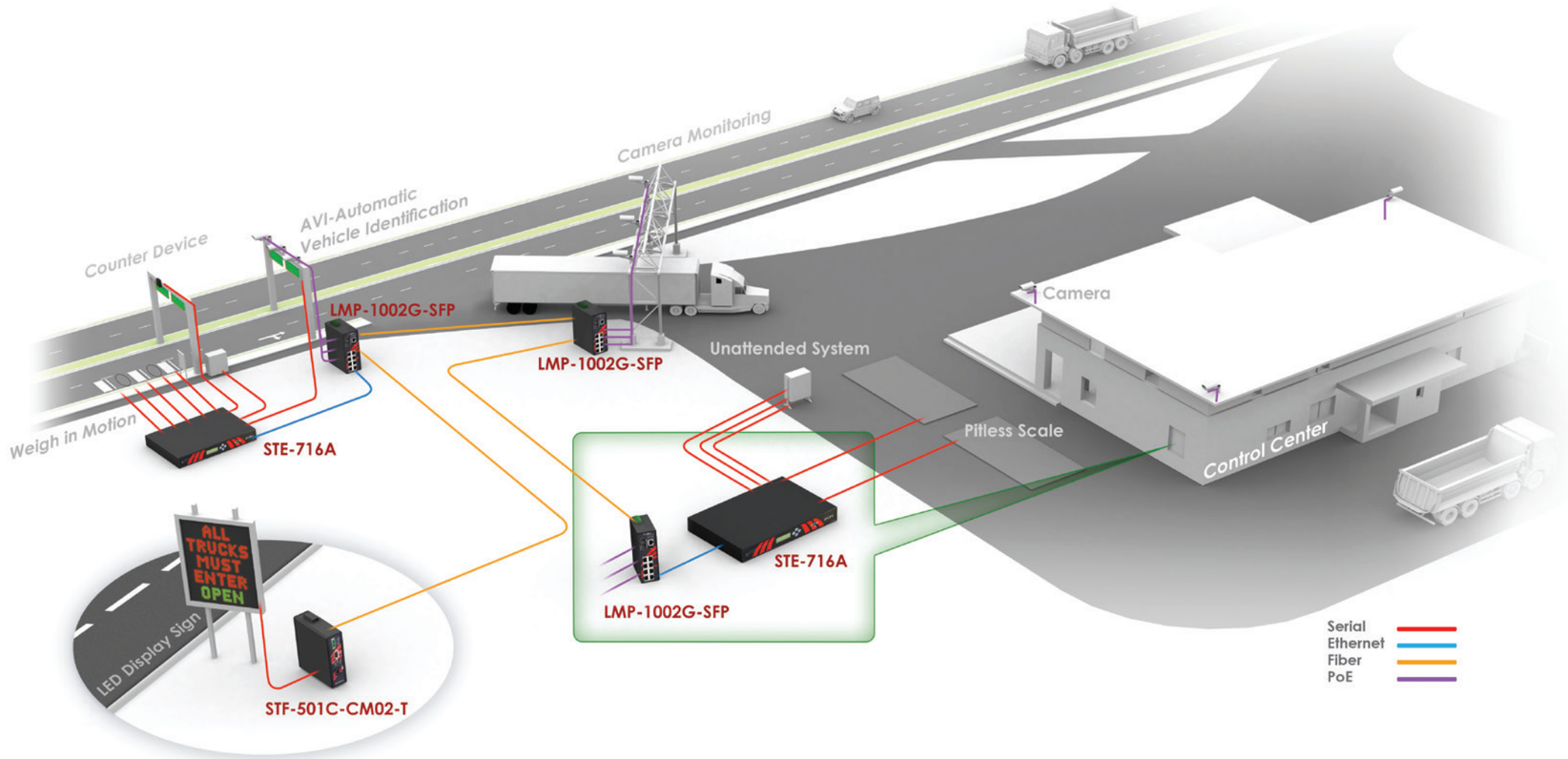
LNX-2012GN-SFP Series

20-Port Industrial PoE+ Managed Ethernet Switch
- 4*10/100/1000Tx + 4*100/1000Fx dual rate SFP ports
- IEEE 802.3af/at compliant up to 30 Watts per port
- Network Redundancy Support: RSTP, MSTP and G.8032 ERPS

Weigh Station

Overview

Weigh stations are used throughout the country to monitor the ever-changing trucking system that transports extensive quantities of goods. These weigh stations are responsible for ensuring that vehicles are not overweight, fuel tax laws are upheld, safety equipment is present, and service hours are within regulation. Due to the increasing number of vehicles on roadways, weigh stations need to be able to keep up with increased volume to prevent traffic congestions and provide notifications over long distances to alert trucks or larger vehicles to stop.



Application

Weigh stations implement advanced equipment to quickly evaluate and weigh all trucks. Electronic bypass transponders provide a weigh station with not only truck but also driver information. As the truck approaches the weigh station it is automatically weighed by a system known as weight in motion. If the truck is within regulation it may continue on without stopping. However, due to several factors such as speed and multiple axle vehicles, the weight in motion systems are not always reliable and the driver may need to pull over for more accurate measurements.
The weigh station infrastructure requires a substantial amount of equipment to accurately assess each vehicle that passes through. Weigh stations utilize a variety of devices that use many communication languages. Vehicle message signs and other devices use serial connections to transmit data. Due to the need for wide area coverage, weigh stations benefit from the use of a fiber optic backbone. Fiber provides the capacity for long distance communication, high bandwidth and noise immunity. Ethernet switches can be utilized for additional equipment including PoE cameras to complete a comprehensive system for monitoring and data collection.

Challenges

- Redundant network for 24/7 operation
- Real-time data transmission
- Electromagnetic Interference (EMI) environment
- Industrial grade vibration resistance
- Ability to transmit data over long distances
- Wide temperature and humidity concerns

Application Requirements

- Industrial grade networking devices to perform under harsh environment
- Capability to monitor all distributed monitoring equipment of a widely distributed transportation infrastructure
- Industrial grade networking devices to perform under harsh environments
- Reliable real-time data routing with built-in network management software
- Integration of video surveillance systems
- Expandability

Antaira's Solutions & Benefits

Antaira's Industrial Managed Ethernet Switch Series provides layer 2 network management software allowing users to remotely monitor and manage the network. Managed switches provide standard features such as QoS, SNMP, IGMP, email alerts and IEEE 802.1Q. Additional PoE features, such as, remote PoE power management and automatic end device power recovery can also be managed.

Antaira's Industrial Serial Device Server Series provides multiple RS232 connections bridging legacy serial measurement devices to transmit data bi-directionally and allows users to set up a ring topology network for dual data redundancy.

Antaira's Industrial Serial to Fiber Series provides a 1-port RS232/422/485 connection along with 1*100Fx fiber optic connections allowing for long distance communication with either daisy chain or redundancy capabilities to legacy serial devices still in place.

Key Products

STE-716 Series

16-Port RS232/422/485 Serial Device Servers
- Dual 10/100Tx LAN ports support daisy chain and network redundancy
- Flexible Operation Mode Support: Virtual COM, TCP/UDP server/client
- Multiple configuration options for either Web Console, Telnet, or Windows Utility

LMP-1002G-SFP Series

10- Port Industrial PoE+ Gigabit Managed Switch
- 8*10/100/1000Tx (30W/port) + 2*100/1000 SFP slots for fiber
- Network Redundancy Support: RSTP, MSTP and G.8032 ERPS
- Network Management : SNMP, QoS, VLAN and IGMP support

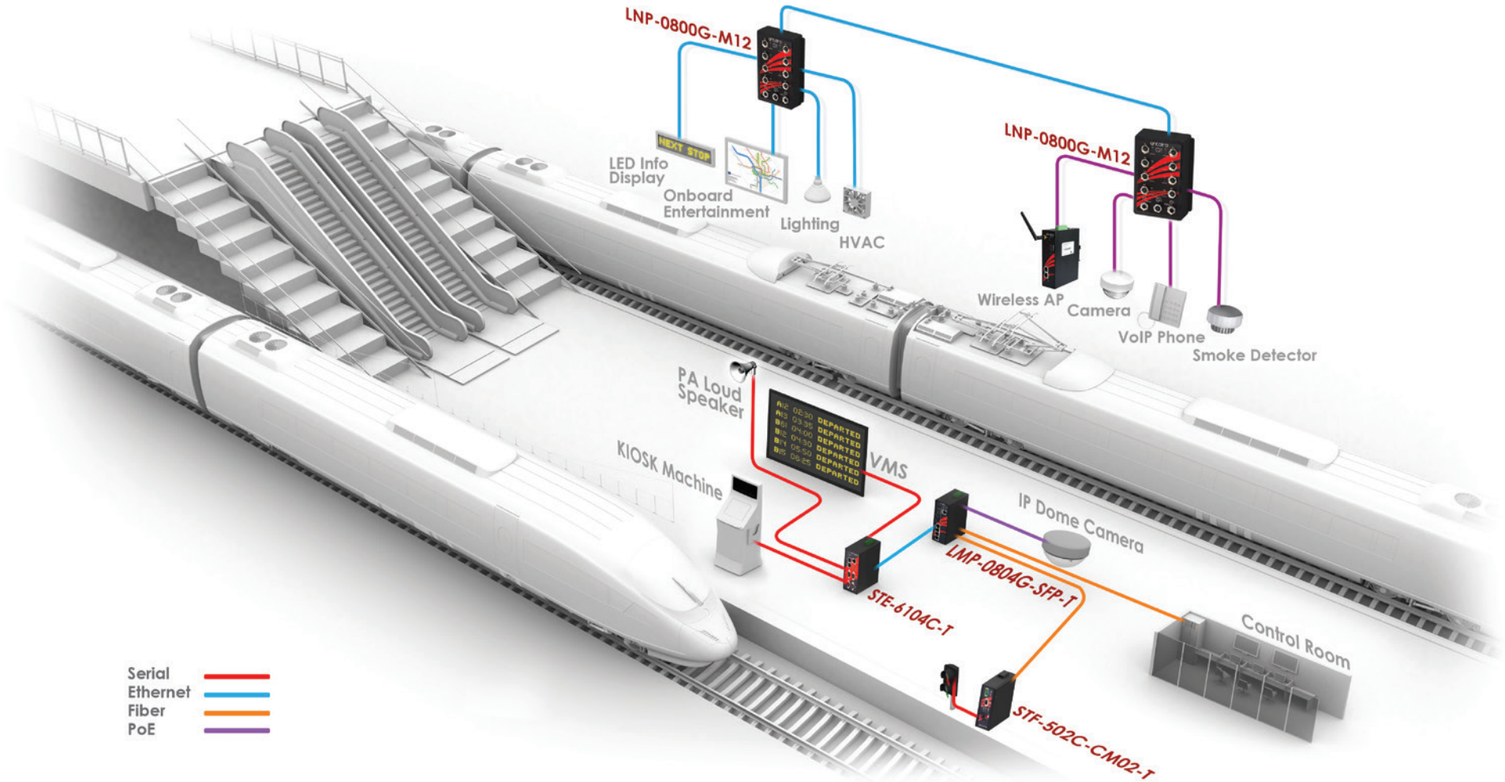
STF-501C Series

Industrial RS232/422/485 Serial to Fiber Media Converter
- 1-port RS232 (DB9) or RS422/485 (terminal block) serial interface
- Provides SC/ST fiber interface up to 30km
- 15KV ESD and 2.5KV isolation protection

Passenger Rail

Overview

As the urban and metropolitan populations continue to grow, the public transportation system becomes more critical for transporting individuals throughout the city and alleviating roadway congestion. Passenger rail is an effective public transportation system that is more prevalent because suburban communities are now being connected to larger cities. Rail systems are safe, cost effective, reliable and becoming faster as new technology and methods are developed. However, due to the incredibly large influx of commuters during peak rush hour times, an automated system is needed for maximum efficiency.



Application

To provide an effective means of transporting large populations safely and in a timely manner to their destinations, extensive data collection that is accurate, reliable and real-time is required. Therefore, the most critical component of a passenger rail's automated system is its industrial networking infrastructure or backbone. This infrastructure connects components such as crosswalks, message display signs, PA systems, automated ticketing kiosks, train status displays, and cameras. Edge level network connections must be able to satisfy serial, Ethernet, fiber optic and wireless needs. All data from these edge devices need to be communicated in real-time between stations, traffic intersections, and other outside areas that may come into contact with the rail system. Due to heavy vibration, connectivity devices that utilize M12 connectors greatly mitigate the chances of lost connections. If there are failures within a segment of the infrastructure, the effects can quickly propagate causing delays.

Challenges

- Redundant network for 24/7 operation
- Real-time data transmission
- Electromagnetic Interference(EMI) environment
- Industrial grade vibration resistance
- Ability to transmit data over long distances
- Wide temperature and humidity concerns

Application Requirements

- Industrial grade networking devices to perform under harsh environments
- Self-healing network redundancy to prevent single points of failure
- Capability to monitor all equipment of a widely distributed transportation infrastructure
- Reliable real-time data routing with built-in network management software
- Enable integration of video surveillance systems
- Expandability
- EN50155 enhanced shock & vibration

Antaira's Solutions & Benefits

Antaira's Industrial Managed Ethernet Switch Series provides layer 2 network management software allowing users to remotely monitor and manage the network. Managed switches provide standard features such as QoS, SNMP, IGMP, email alerts and IEEE 802.1Q. Additional PoE features, such as, remote PoE power management, and automatic end device power recovery can also be managed.

Antaira's Industrial Serial Device Server Series provides multiple RS232/422/485 connections bridging legacy serial devices to transmit data bi-directionally by utilizing built-in Real COM software or a TCP socket function to remotely monitor from a control center.

Antaira's Industrial Serial to Fiber Series provides a 1-port RS232/422/485 connection along with 2*100Fx fiber optic connections allowing for long distance communication with either daisy chain or redundancy capabilities to legacy serial devices still in place.

Key Products

STE-6104C-T

4-Port RS232/422/485 Serial Device Servers

- Dual 10/100Tx LAN ports support daisy chain and data redundancy
- Flexible Operation Mode Support: Virtual COM, TCP/UDP server/client
- Multiple configuration options for either Web Console, Telnet, or Windows Utility

LMP-0804G-SFP Series

8-Port Industrial PoE+ Managed Ethernet Switch

- 4*10/100/1000Tx + 4*100/1000Fx dual rate SFP ports
- IEEE 802.3af/at compliant up to 30 Watts per port
- Network Redundancy Support: RSTP, MSTP and G.8032 ERPS

LNP-0800G-M12 Series

8-Port Industrial IP67 PoE+ Ethernet Switch

- 8*IEEE 802.3at compliant PoE+ M12 ports
- M12 connectors for secure connections
- Compliant with EN50155

STF-502C Series

Industrial RS232/422/485 Serial to Fiber Media Converter

- 1-port RS232 (DB9) or RS422/485 (terminal block) serial interface
- Dual serial fiber interface for a redundant serial fiber network
- 15KV ESD and 2.5KV isolation protection

Municipal Bus

Overview

Municipal bus service is an important part of the transportation infrastructure for virtually every city across the globe. Commercial bus ridership has been experiencing exponential growth, and developed cities have seen ridership increase over the past couple of decades. As ridership increases, there is also an increased demand placed on transportation authorities to provide added security and a more efficient tolling collection system for passengers on not only public transportation, but also school and private tour buses.

Application

Toll collection is an important factor in keeping busses running efficiently and on schedule. By utilizing smart card readers, passengers can quickly scan preloaded transportation cards to pay fees, allowing bus operators to pay more attention to safety.
Installation of CCTV cameras will capture video footage of events both inside and outside the bus along with sensors that monitor the acceleration and deceleration. When a bus enters the depot, the stored video footage and sensor data can be wirelessly downloaded to the central server inside the bus depot for long term storage.
However, electronic equipment placed on moving vehicles have hardships due to its niche operating environment. Using industrial grade equipment with M12 connectors to provide links between devices can prevent accidental disconnection of equipment because of its locking safety feature.

Challenges

- Extreme temperature operation
- PoE support for CCTV cameras
- Low power input (12~36VDC)
- Compact design
- Compliant with industrial specifications for shock and vibration
- Ability to download large files rapidly when the bus enters depot

Application Requirements

- Industrial grade networking devices that will power on under extreme temperature conditions
- Ability to support PoE cameras when only a 12VDC battery is available for power
- Ability to transmit multiple IP CCTV streams to the NVR
- Fast and secure download of stored video to the network at the depot
- Expandability
- EN50155 enhanced shock & vibration

Antaira's Solutions & Benefits

Antaira's Industrial Ethernet Switch Series provide power to end devices like CCTV cameras. These switches feature the ability to provide 48+VDC to the end device with only a 12VDC power source. The PoE switches also offer a wide operating temperature of -40C to 75C that assures the switch will power up even if the bus has been idle without the heater or air conditioner running.

Antaira's Industrial Wireless Access Points Series provides fast and secure downloads along with an industrial temperature range to assure reliable operation. The 802.11 wifi models provide rugged solutions for mobile on-vehicle wireless networks to automatically transfer data to a main infrastructure assuring large files can be downloaded faster and more efficiently.

Antaira's Industrial Serial Device Server Series provides RS232/422/485 connections bridging legacy serial measurement devices to transmit data back and forth by utilizing built-in Real COM software or a TCP socket function to remotely monitor from the control center.

Key Products

LNP-0800G-M12 Series

8-Port Industrial PoE+ Ethernet Switch with M12 Connectors
- 8*10/100/1000Tx IEEE802.3at PoE+ ports
- 12 - 36VDC power input with internal voltage booster
- EN50155 compliant

APN-310N

IEEE 802.11 a/b/g/n AP/Client/Bridge/Repeater (Software Selectable)
- 802.11 Wifi access point/bridge/repeater
- 12VDC - 48VDC power input
- Gigabit throughput for fast downloads

STE-502C

2-Port RS232/422/485 Serial Device Server
- Supports virtual COM, TCP/UDP server or client
- Configuration via Web Console, Telnet or Windows Utility
- Shock, free fall and vibration resistant

APX-5000 Series

Industrial IP67 802.11 a/b/g/n Wireless AP/Client
- Two high speed Gigabit RJ45 Ethernet ports
- 2.4 or 5GHz high power output (800mW) radio
- WEP/WPA/WPA2/IEEE 802.1x authentication support

About Antaira

Antaira Worldwide

Antaira Technologies is a leading developer and manufacturer of 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, to industrial wireless devices, Ethernet media converters, and industrial serial communications. Our vast professional experience has allowed us to deploy a wide array of products worldwide in mission-critical applications across various markets, such as, automation, transportation, security, oil and gas, power/utility and medical.

Mission Statement

As a leader and trusted partner in the industrial device networking field, Antaira is committed to providing quality products and value-added service to its customers and channel partners to create solutions that deliver a worldwide advancement for a wide array of applications.

OUR COMMITMENT

Product Warranty

All Antaira products are backed with a warranty of up to 5 years. We warrant products against defects in material and workmanship for up to 5 years from the date of purchase. This means that Antaira will happily repair or replace the defective products within warranty, provided the products were installed and used within specification. Antaira is committed and will stand behind all of its products assuring customers will receive the highest quality and most reliable products possible.

Customer Service & Tech Support

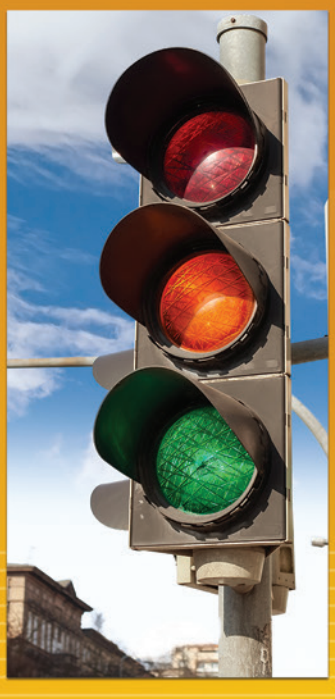
Antaira's dedicated and competent team takes pride in delivering high-quality and prompt service to our customers. We go one step further when it comes to service. All incoming calls are routed to a live representative who can answer all inquiries quickly, whether it be pre-sales, post-sales or technical services. Antaira's technical support and RMA team have elite industry knowledge to ensure all issues are professionally and thoroughly resolved.

Satisfaction Guarantee

At Antaira, we strive to meet our customers' needs by going above and beyond industry standards. Every sale is backed by our 45-day satisfaction guarantee. If for any reason our customers are unsatisfied with their experience or their expectations were not met, Antaira will provide a full refund within 45 days of the purchase date. Our friendly customer service representatives are available to help clarify any questions, comments or concerns regarding all transactions.

RoHS Directive

Antaira recognizes its environmental responsibility as a manufacturer and is dedicated to preserving the environment for future generations. We make it a priority to ensure that all our products are environmentally friendly. At Antaira, we not only make sure that our products are RoHS 2.0 compliant, but also all of our packing materials used to ship our products are also compliant.



Headquarters
Antaira Technologies, LLC.
3490 E. Miraloma Ave.
Anaheim, CA 92806 USA
Toll-Free: 1 (844) 268-2472
T: 1 (714) 671-9000
F: 1 (714) 671-9944
www.antaira.com
info@antaira.com

Europe Branch Office
Antaira Technologies SP. z o.o.
ul. Czeresniowa 98
02-456 Warsaw, Poland
T: +48 22 862 88 81
F: +48 22 862 88 82
www.antaira.eu
info@antaira.eu

Asia Branch Office
Antaira Technologies Co. Ltd.
8F-2., No. 43, Fuxing Rd.,
Xindian Dist., New Taipei City 231, Taiwan
T: +886-2-2218-9733
F: +886-2-2218-7391
www.antaira.com.tw
info@antaira.com.tw