

EUROPE
AMERICA
ASIA
AFRICA

L-com® Global
Connectivity

Enclosures Configured to Any Need:

STANDARD

MODIFIED

CUSTOM

IP66 UL air ports
landscaping **NEMA Rated** antenna
IP54 **Security** access point electronic
preconfigured process control outdoor building automation
controls access point marine **Configurable**
lighting systems indoor security airports access point process control
Rugged industrial networks **Weatherproof** WiFi
wireless options environmental controls
oil rigs **Wireless** timers Industrial
industrial networks controls configurable industrial automation
irrigation **WiFi** security
IP54



INDUSTRIAL ENCLOSURE SOLUTIONS

From the Connection Experts

L-COM INDUSTRIAL NEMA ENCLOSURES ARE USED EVERYWHERE

Included Here Are Some Typical Applications...

Wireless/WiFi Enclosure Applications

L-com enclosures are ideal for any Wireless/WiFi need—either indoor or outdoor. Our selection of configurable enclosures is second-to-none, as we are a leading manufacturer of wireless products.

Outdoor

L-com's weatherproof



Industrial NEMA Enclosures provide excellent protection against the elements in any climate. Heating and cooling options for enclosures provide reliable performance for wireless access points and other sensitive electronic components.

Indoor



Vulnerable to theft, tampering and damage, indoor (as well as outdoor) enclosures provide protection of access points, routers and other wireless equipment. While standard L-com enclosures are lockable, keyed locks can be provided on custom enclosures.

CASE STUDY

Crown Castle, Celebration, Florida

CHALLENGE

Crown Castle is one of the country's largest independent owners and operators of shared wireless infrastructure. They own, operate, build and lease towers, rooftops, and Distributed Antenna Systems (DAS) in prime markets for wireless communications.



As part of a wireless networking project for Disney theme parks, Crown Castle needed a UL-listed equipment enclosure that was weatherproof in order to house various access points and other communications devices. The enclosure also needed to support Power over Ethernet (PoE) and include a cooling fan to protect the equipment from extreme heat.

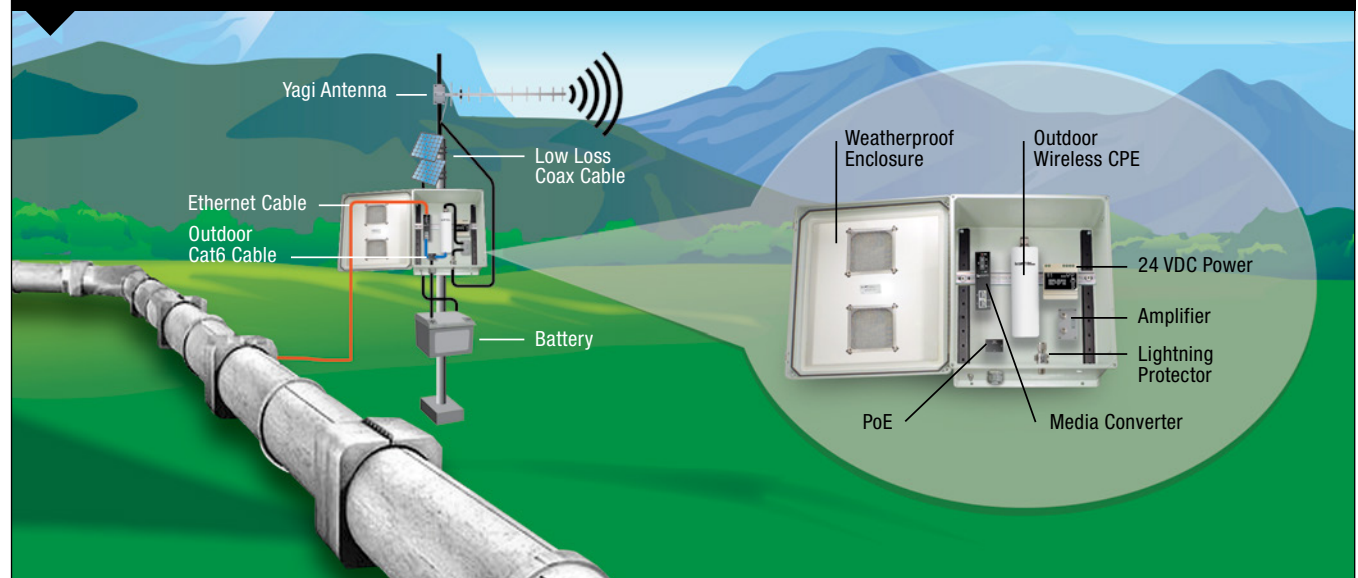
Solution

L-com provided Crown Castle with a custom built UL-Listed enclosure that was weatherproof and met all other requirements. It featured multiple PoE interfaces, as well as the ability to mount two wireless CPE devices. Made of rugged fiberglass construction, the enclosure can also be locked for security.

Results

Crown Castle was able to provide seamless WiFi access for customers and employees of Disney parks with its comprehensive wireless network systems and services.

SAMPLE WIRELESS APPLICATION FOR AN OIL PIPELINE MONITORING SYSTEM



This illustration represents an outdoor wireless application for an oil pipeline. It includes a weatherproof NEMA enclosure outfitted with wireless CPE, a media converter, PoE, a lightning protector, amplifier and power source. In addition, L-com provides the Yagi antenna and all cable and connectivity.

Industrial Enclosure Applications

Industrial applications cover many uses for enclosures, but they often share similar requirements. They must often operate in extremely harsh environments, under temperature extremes, with exposure to corrosive chemicals, extreme climates, and more. Here are just a few of the many possible industrial applications for rugged L-com NEMA rated enclosures.

Industrial Automation



For automated manufacturing, robotic equipment and industrial networking controls, such as PLCs, I/O modules, computers, machine vision equipment, etc., for discrete or process manufacturing.

Landscaping/Irrigation Systems



For use with landscaping timers and controllers of irrigation and lighting systems.

Transportation



For housing controls used in highway and traffic systems (i.e., emergency communication equipment), railway systems (i.e., lighting and crossing gate equipment) and air traffic systems (i.e., runway lighting controls).

Mining



For protection of network and communication equipment in mines.

Oil & Gas



Enclosures are used to protect equipment for communications and networks in refineries and on oil rigs, both on land and at sea.

CASE STUDY

Industrial Application

CHALLENGE

A leading company which provides cold storage solutions for industries such as retail, grocery and food manufacturing, required multiple access points to be located in -40 degree refrigeration units as part of a wireless network implementation with PoE connectivity.



The initial enclosures provided by a competitor were too small to house the access points and they were having trouble trying to design a system that required only one cable to power the access point and enclosure heater. The requirement for this project was that each access point enclosure could only have one Ethernet cable connection per system.

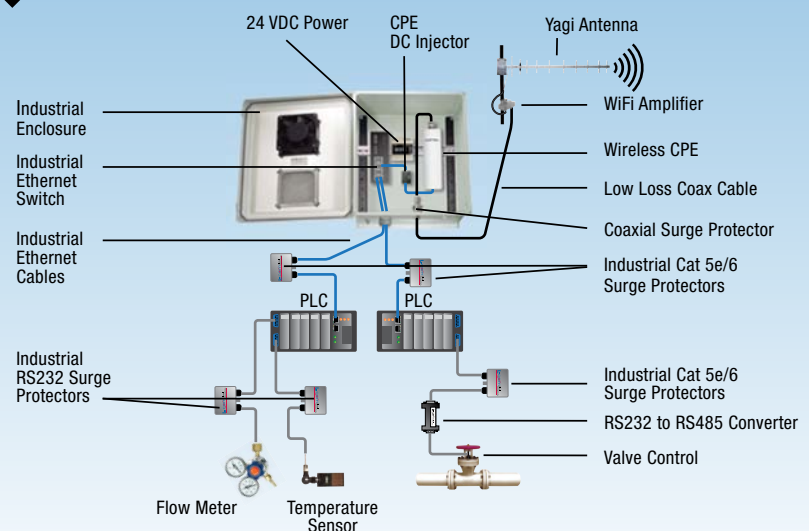
Solution

L-com developed a comprehensive solution to address all of the customer's requirements for this enclosure. A customized NEMA enclosure was able to house the access point and have enough room to make adjustments, if needed. Additionally, L-com was able to design a system that could be powered with a single Ethernet cable. Added value was achieved by mounting the access points in the enclosures, as well as install all required cabling and antennas. By providing this complete solution, L-com was able to help save time and money on installation.

Results

L-com was able to deliver a custom enclosure solution meeting all of the technical requirements, as well as meeting cost targets.

SAMPLE INDUSTRIAL APPLICATION IN A PROCESS AUTOMATION NETWORK



This diagram encompasses a rugged indoor NEMA enclosure, along with Ethernet, RS232, RS485 and WiFi connectivity, to provide an end-to-end process automation networking solution.

Building Security and Automation Enclosure Applications

Rugged L-com enclosures are often used to protect control equipment for a variety of building security and automation applications. Both indoor and outdoor varieties are offered to accommodate the varied locations for installed security equipment: on cell towers and rooftops, in open-access basements or telecom closets in commercial buildings, in retail stores, shopping centers, factories and more. L-com enclosures provide secure storage and protection in non-secure areas.

Access Control



For use in housing control equipment for access, such as card readers.

Fire & Other Alarm



For housing central and distributed controls for alarm systems.

Video Surveillance



Indoor and outdoor enclosures are used for housing controls of video surveillance and CCTV systems.

Building Automation



Housing control equipment used for lighting, HVAC, window coverings and other building automation control applications.

CASE STUDY

SECOVI, Monterrey, Mexico

CHALLENGE

SECOVI has over 24 years of experience in the sales, service and distribution of power protection technologies for high availability electronic equipment in Mexico.

SECOVI was contracted by the Mexican government to install surveillance camera systems for the 2011 Pan American games held in Guadalajara. The project required weatherproof NEMA rated equipment enclosures. They needed to provide security, as well as heating and cooling options, to protect the valuable equipment from temperature extremes.



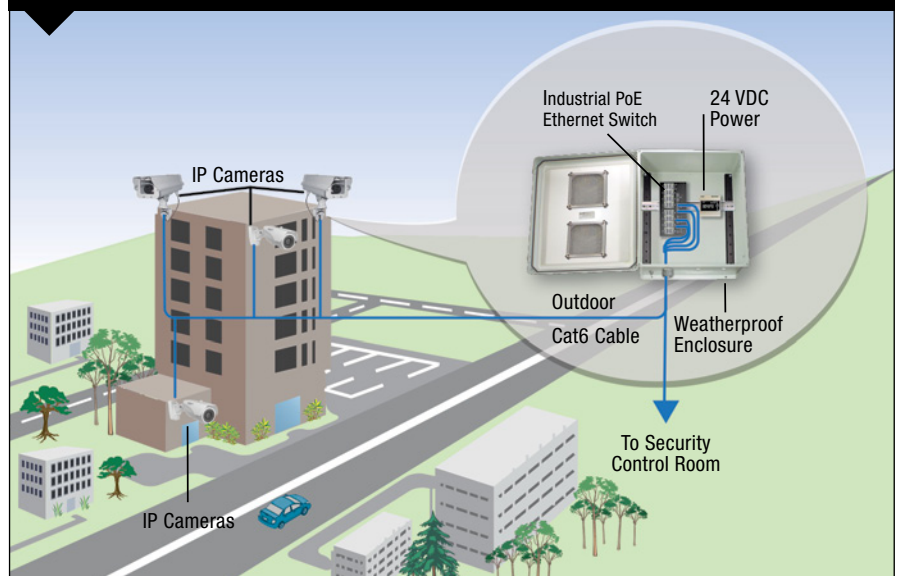
Solution

L-com was able to provide several different versions of its standard "off-the-shelf" weatherproof NEMA enclosures to meet SECOVI's requirements. These enclosures provided a secure and rugged housing for the video surveillance equipment. L-com's cooling and heating options provided the temperature protection required.

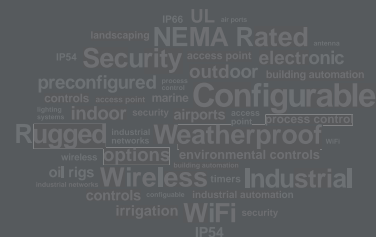
Results

SECOVI installed over 900 surveillance monitoring points using L-com's weatherproof enclosures. This customer was able to meet their installation deadline for the Pan-American games and provide extensive surveillance for the entire stadium.

SAMPLE SECURITY APPLICATION



This sample security application illustrates the use of outdoor NEMA enclosures for video surveillance on a typical building. L-com includes NEMA enclosures with industrial PoE switch, 24 VDC power, outdoor Cat6 cable and IP cameras.



CONFIGURABLE INDUSTRIAL NEMA ENCLOSURES

OPTION:
Mounting Plate

SOLUTION:
Securely mount equipment inside enclosure. Available in metallic and non-metallic versions.

OPTION:
Thermostat Controlled Cooling Fan

SOLUTION:
Deployment of sensitive equipment in high temperature environments.

OPTION:
Mounting Lid

SOLUTION:
Prevents damage and theft of internal equipment. Lid options include metallic and non-metallic hinges, removable lids and lids with clear viewing windows.

OPTION:
PoE Interface

SOLUTION:
For remote installations where power sources are limited. PoE interface provides additional surge protection for internal PoE compatible equipment.

OPTION:
Thermostat Controlled Heater (under plate)

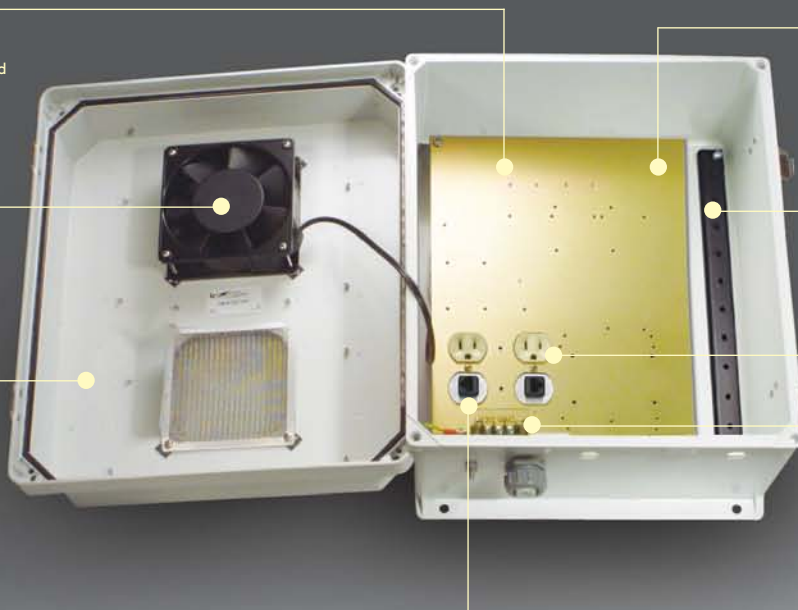
SOLUTION:
Deployment of sensitive equipment in low temperature environments.

OPTION:
DIN Rails

SOLUTION:
Provides secure mounting points for industrial DIN mount equipment.

OPTION:
Internal Power

SOLUTION:
Provides power to internal equipment. Options include 120 VDC, 240 VAC, & 12 VDC. Universal outlets available for international use.



Industrial NEMA Enclosures

Industrial NEMA Enclosures from L-com are extremely configurable to meet your EXACT equipment protection needs.

- With weatherproofing for climate and environmental protection
- For outdoor and indoor applications
- To operate in hot and/or cold temperatures
- With the ability to withstand harsh environments
- To protect electrical and/or electronic equipment
- For wired or wireless technologies
- To deploy and secure equipment
- To deliver power and data to equipment

L-com Enclosure Benefits

Industrial NEMA Enclosures are the most flexible and configurable in the industry! Choose from our huge selection of standard sizes, add options, make modifications to our standard enclosures, or we can provide a custom enclosure for you.

- Largest selection of models available
- More options than you'll find elsewhere
- Fiberglass (FRP), plastic ABS and metallic enclosures offered
- Competitively priced for high value/performance ratio
- Quick turn-around time for custom modifications
- Ability to include enclosures as part of a total L-com "Engineered Solution," where other L-com products and engineering services are employed to deliver a product or system solution for your specific application (Please refer to our "Engineered Solutions" brochure)

Many Standard Configurations Available

Starting from simple enclosures to powered enclosures with cooling and heat, L-com makes it easy to find the exact enclosure you need from our standard selection.

L-com Custom Modifications

In most cases, our standard enclosures can be adapted with options, such as those shown above, or custom modifications to suit a customer's specific need, avoiding a more costly custom enclosure. Here is a sampling of the many alterations that L-com can provide:

- Any number of ports added to the enclosure
- Ports can be of any specific size to accommodate both data and power feeds
- Custom cut-outs for glands, etc.
- Mounting plates and brackets (metallic or non-metallic)
- Pre-wired and/or pre-terminated enclosures
- Temperature controls for setting heating and cooling to maintain a desired temperature
- Custom insulation
- Specific color requirements

