

Processing
Manufacturing
Infrastructure

TRANSITION
NETWORKS®

INDUSTRIAL NETWORKS



**LIFETIME
WARRANTY**

INDUSTRIAL

We have all been witness to the amazing capabilities of Ethernet as it has progressed from a simple LAN environment to full scale Telco and Industrial networks. Today, new developments and standards are constantly being updated and applied to Ethernet, which is accelerating its use in numerous industrial networking environments. As a result, Industrial Ethernet is now adding significant value in industrial automation architecture by streamlining its communication and interfaces, while simplifying the integration. In addition, Ethernet has improved the access to information from anywhere without the risk of machine safety and compromising network security. Part of developing and streamlining a full-scale Industrial Network includes integrating the industrial networks and process networks into the company's enterprise network. Transition Networks leads the way in the global enterprise and Telco market and through their continued innovation, has also become an expert within the industry for designing an integrated network from the office to the factory floor.

Transition is committed to bridging the gaps between the multitudes of protocols that are found in the controlled industrial environment. Transition now has several choices of equipment across many different applications, including: Class I, Div 2 for hazardous locations, 99.999% uptime automation environments, and extra security measures to ensure that your data is safe. In addition, many of our switch and media converters have redundant power supply capabilities, with 24 VDC power sources, PoE/PoE+ features, and hardened components built to withstand industrial environments.

Industrial Applications

- Oil & Gas – With Class 1, Div 2 for Explosive Environments in Petro/Chemical Plants
- Automation – Built for Harsh Environments and Mission-Critical Operations with highly-reliable redundancy and 99.999% uptime
- Utilities – Secure Protocols and Intelligence for Maximum Protection and Control
- Transportation (Railway, Traffic, Marine, & Airport) – Built to Withstand Shock & Vibration
- Surveillance – Hardened with Extended Temperature For Access Control, Security Surveillance, Traffic Monitoring or Manufacturing Process Control



'Fiber. Guaranteed.'

Transition Networks engineers the most reliable fiber integration technology for hardened or industrial environments bringing the security, intelligence, and global support to manage your network for a lifetime.



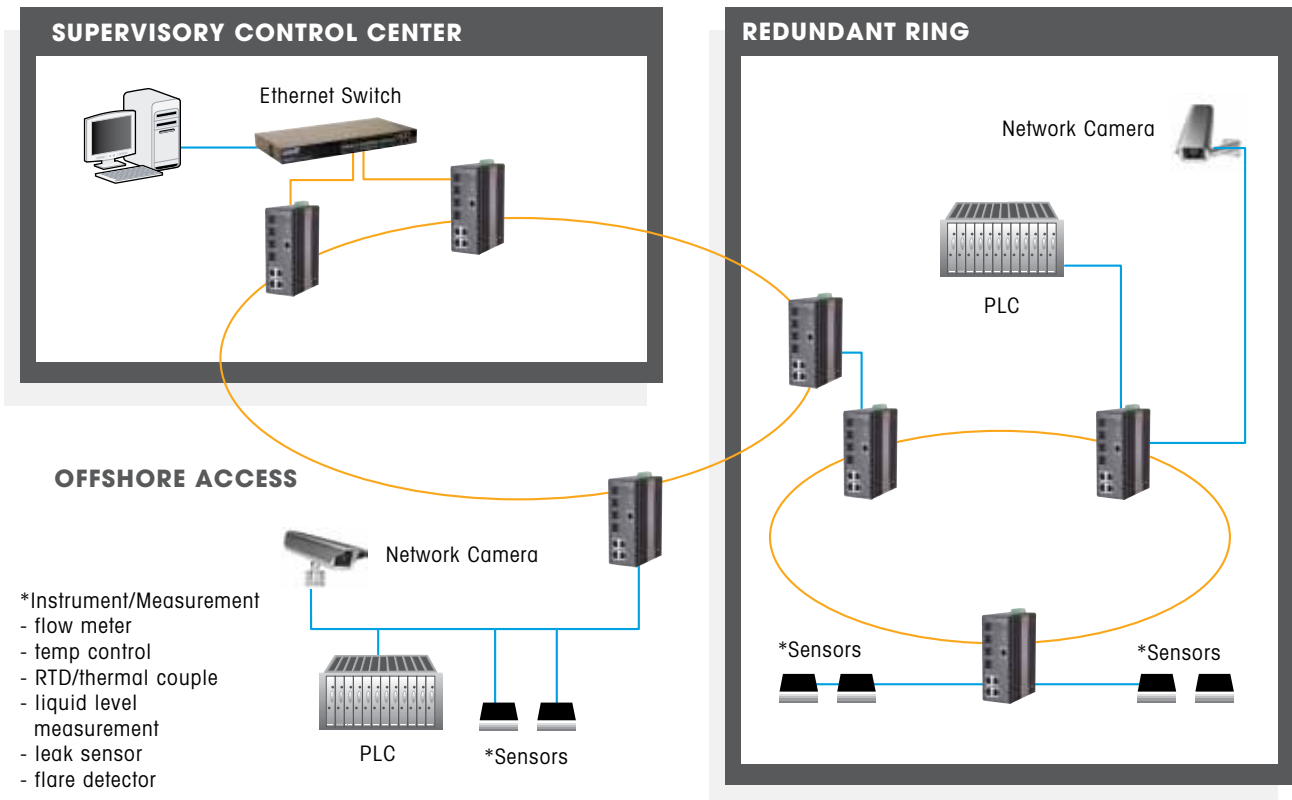
OIL & GAS

Oil companies are constantly investing in more advanced monitoring devices to help ensure that their production continues smoothly. With a good system in place, the appropriate action can be taken the instant an emergency arises. Ethernet has turned out to be the technology basis for virtually all new Supervisory Control and Data Acquisition (SCADA) systems. These Ethernet networks process massive amounts of data which is used for simplifying the exploration and production of these incredibly sophisticated upstream operations. Oil and gas applications for both upstream & downstream require that an enormous amount of network bandwidth be available with high levels of security (SSL, SSH, IPV6) for industrial operations. Many of these devices are hardened for field operations and require redundancy for highest availability. Each of these products must be based on a specific set of standards with some form of anticipatory intelligence to increase efficiency.

Product Benefits

- Built For High Bandwidth Transmission
- Fiber Built-in to Accommodate Selections of 100 Mb/Gig Fiber Media
- High-EMI Noise Immunity, Reliable Operation in the Presence of Interference
- Wide Ambient Operating Range (up to 75°C & down to -40°C)
- Reliable Network Redundancy
- Able to Withstand Harsh Oil & Gas Environments
- Built to GL Certification in Marine Environments for Ships & Oil Drilling Platforms
- Built to the UL/cUL, Class 1 Division 2, ATEX Standards and Rated for Hazardous Areas

Transition Networks serves the Oil & Gas market with the industry's most expansive portfolio of products built specifically to the UL Class 1, Div 2 certification for use in hazardous locations. Transition also brings decades of knowledge and experience of fiber use and conversion to these critical applications, offering both managed and unmanaged products, all backed by our exclusive Lifetime Warranty assuring customers complete reliability of their networks.





AUTOMATION

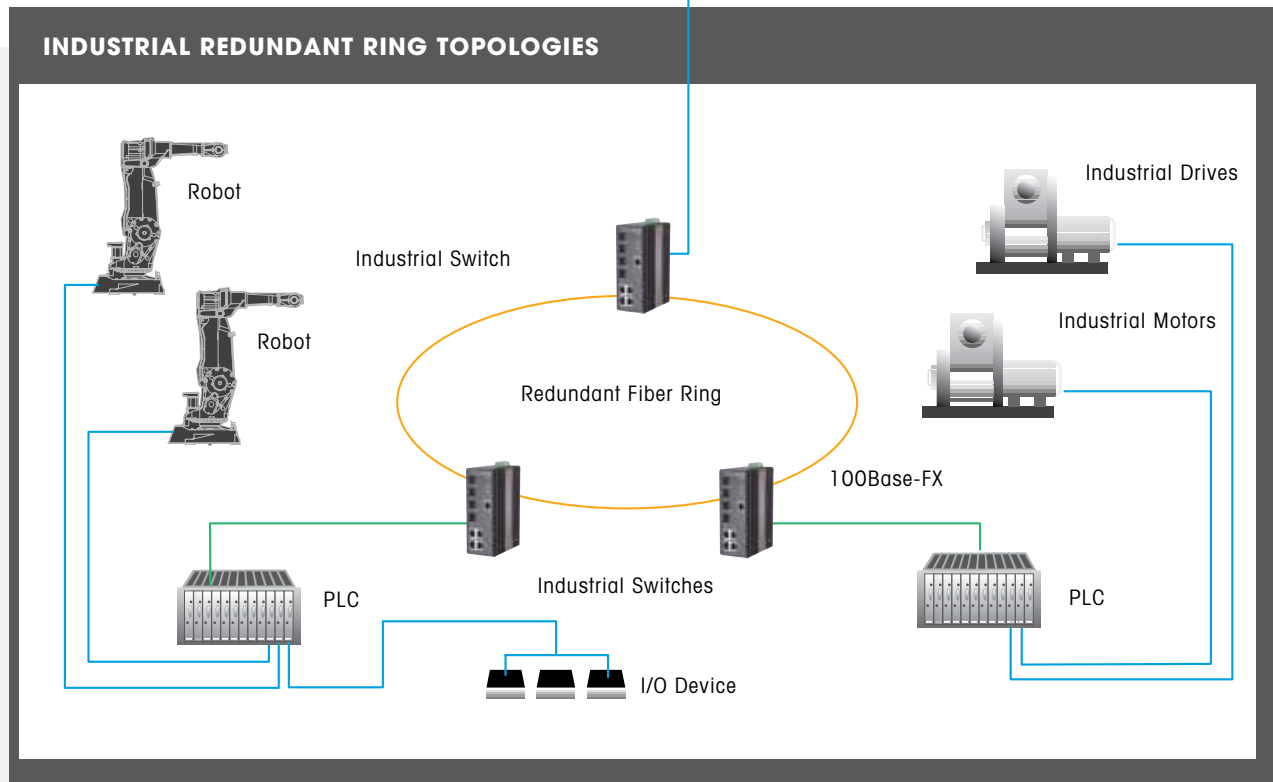
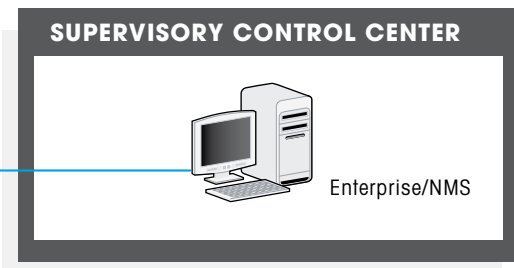
When Ethernet first arrived in the industrial automation networking market it was almost immediately dismissed. Since then, its usage has steadily increased in the automation environment along with Ethernet-ready products developed for device-level networks. Ethernet is now a universal networking systems interface. Production demands on the manufacturing floor require real-time communications with insatiable reliability and performance that must meet or exceed all environmental conditions such as; shock, vibration, EMI and extended temperatures to ensure guaranteed system availability.

In industrial networking applications, one huge advantage of Ethernet is the ability to standardize an entire enterprise—from the plant floor to the corporate office—on one network.

Product Benefits

- Rugged Design with a Wide Ambient Temperature Range and Configurable Fiber Ports
- Network Back-up and Redundancy
- Simple Integration Between LAN, WLAN, and Serial
- Lifetime Warranty

As automation networks migrate away from proprietary field-bus networks to open standards-based Ethernet, Transition brings its decades of experience with fiber optics to enable connectivity from devices on the factory floor to the enterprise IT system.





UTILITIES (SMART GRID)

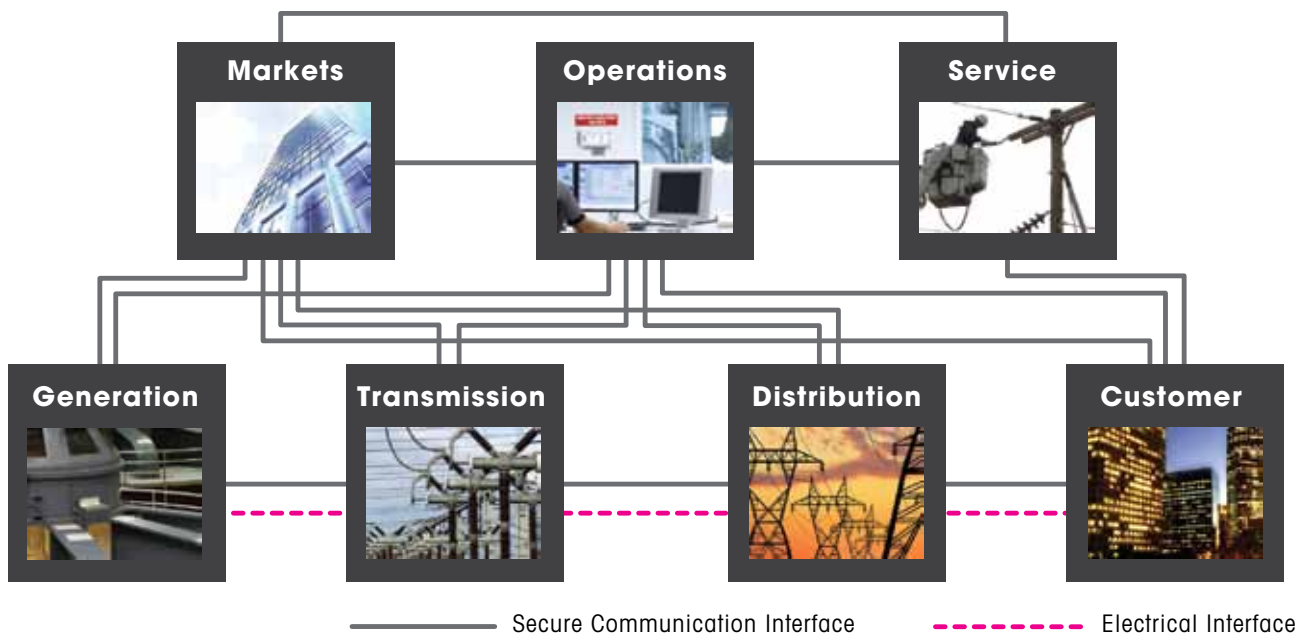
The Smart Grid application brings with it real-time dependencies on data acquisition, protection and control, all of which cannot exist without a highly reliable, integrated communications network. The success of the Smart Grid infrastructure will not only be judged on its own economic performance, but also on its ability to protect the public's personal health, safety and welfare. Ethernet is the preferred network architecture for Smart Grid communications because of its flexible integrated infrastructure allowing real-time monitoring and control of many different types of devices. Ethernet fiber optics is the preferred media due to the increased security requirements of Smart Grid, its effectively limitless bandwidth capacity, immunity to electromagnetic interference (EMI), avoidance of ground loops and support for both short and long-haul communications. Fiber ring topologies provide rapid fault recovery and reporting if a device or a connection fails or is damaged.

Product Benefits

- SSL, SSH, Radius for Cyber Security
- Fiber Integration
- Secure Remote Access
- High-EMI Noise Immunity
- Built to IEC 61850 & IEEE 1613 Compliance
- Power types such as: 125V, 110V, 24V, -48V DC, and AC
- Dual-Source Option for High Availability in Case of Power Source Failure
- Operating Temperature Range, -40°C to 75°C
- Rugged Case for Durability

Most importantly, an Ethernet communication infrastructure increases the Smart Grid's ability to withstand catastrophic events or even a calculated attack on crucial systems that consumers, commercial enterprises, and other industries depend on everyday for our way of life.

Transition Networks' Industrial Ethernet products are built to help ease the migration to Ethernet by providing and improving reliability and security; allowing for better visibility and control of data throughout your network.



'ease your migration...'



TRANSPORTATION

Because of connectivity, scalability, bandwidth efficiency and significant cost advantages, Ethernet is rapidly being deployed as an effective technology across a wide spectrum of transportation applications. Whether in trains, buses, ships or traffic control applications, each application requires, fast, efficient and robust operations under extreme conditions in order to meet the performance and safety expectations of the network. Devices in the world of transportation (Railway, Traffic, Marine & Airports) need to communicate with each other at real-time speeds over great distances in harsh or outdoor environments. Communications uptime is paramount to ensure that the safety and security of passengers and equipment are maintained.

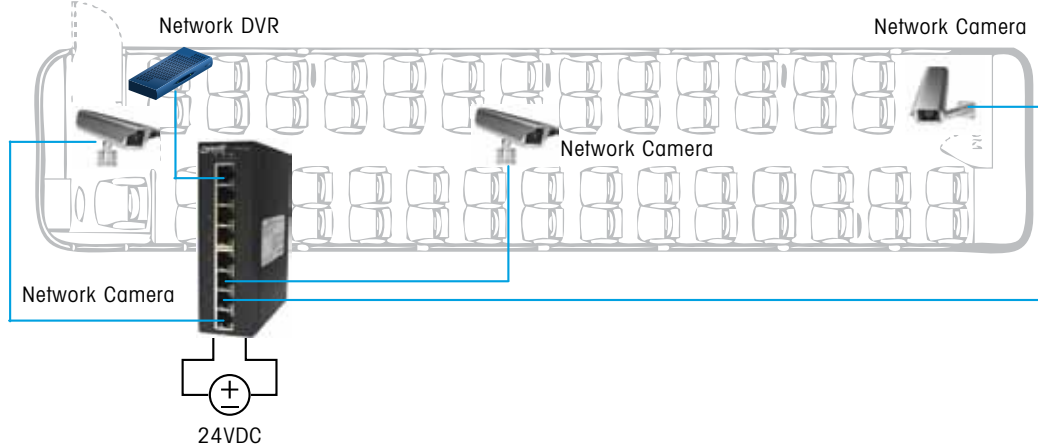
Transition Networks offers a unique blend of popular Ethernet interfaces to provide an integrated, cost-effective and reliable set of features that are specifically tailored for the transportation industry.

Product Benefits

- Available in a Wide Operating Temperature Range (-40° to 60°C) or Extended Operating Temperature Range (-40° to 75°C).
- Hardened, Outdoor-Rated Products
- Full Range of both 100Mb & Gigabit Products
- Power over Ethernet (PoE)
- DC-Powered and PoE Powered Traffic Control Equipment
- Rapid Recovery Tools: RSTP, X-Ring and Redundant Power
- IGMPv2
- UL Listed
- E-Mark



BUS VIDEO SURVEILLANCE



‘performance and safety.’



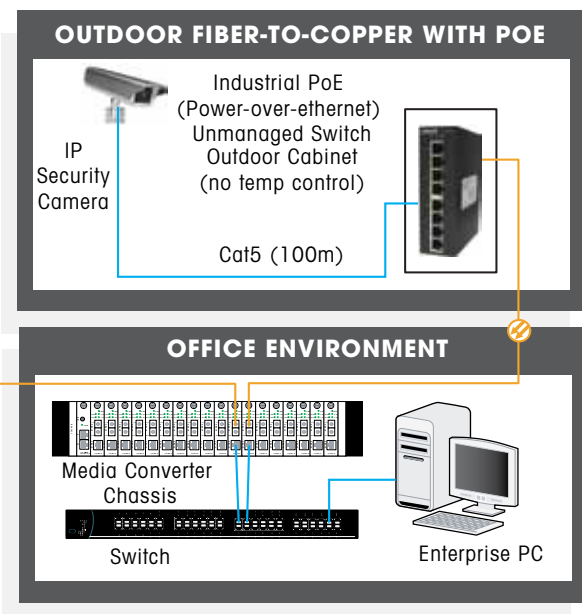
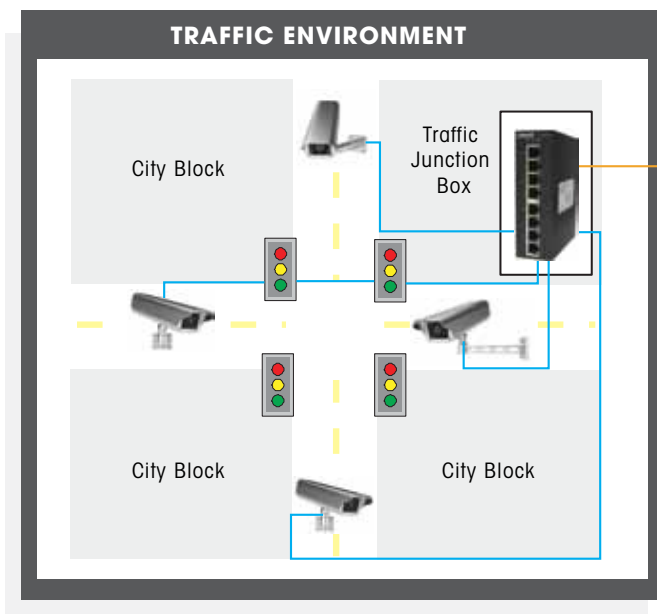
VIDEO SURVEILLANCE & SECURITY

Heightened global security threats post 9/11 have placed more and more pressure on airports, train stations, ports, harbors, key points of entry and distribution centers to protect their physical property, people and assets via video surveillance. Power over Ethernet (PoE) has brought IP Video Surveillance to areas where previously, it might not have been practical or economically possible. Using the same low-voltage cabling for power and Ethernet traffic reduces the need for additional wiring of AC power thus, simplifying the installation.

Transition Networks' Industrial Power-over-Ethernet (PoE) products are designed to meet the high power IEEE 802.3at (up to 30 watts) for PoE+ and the lower power of IEEE 802.3af (up to 15.4 watts) for PoE standards. These devices can supply DC power via Ethernet ports to any network device—such as WAPs,

Access Control Devices, VoIP phones, POS card readers and IP cameras. PoE devices, which are deployed in harsh and hard-to-reach environments where a power supply is not readily available or is cost-prohibitive. By eliminating the need for high-voltage cabling, PoE makes network installation easier, faster, and more cost-effective.

Our exclusive “no-small-print” Lifetime Warranty covers any Transition Networks equipment in your industrial network. Even your power supplies and SFP modules.



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Industrial Media
Converters w/
Class 1, Div2



Extended Temperature
Unmanaged Switches
w/Class 1, Div2



Extended Temperature
PoE and PoE+
Switches



Rugged and
Fully Hardened
Managed switches
w/Class 1, Div2



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