



Application Blueprint

Advanced Traffic Management Systems



Background

Advanced Traffic Management Systems (ATMS) plays a critical role in reducing carbon emission, improving traffic congestion, and increasing transportation safety. In 2014, road transport accounted for more than 70% of all green house gas emissions from transport¹. Through the establishment of intelligent transportation solutions, traffic congestion can be greatly lessened with the leverage of cutting-edge analytics made on the real-time convergence of various sensor data, video, and voice transmitted throughout a multi-layered network. The result: less time wasted in traffic jams, less CO2 emitted into the air.

According to The World Bank, the EU has the world's safest roads, but still there were 18.000 people killed in road accidents in 2020². Around 70% of road traffic deaths in urban areas involve vulnerable road users such as pedestrians, motorcyclists, and cyclists³. Tackling road safety in cities is, thus, a key policy area. With highly integrable I/O modules and high-speed PoE switches installed along roads, sensor data and surveillance video can be collected quickly and submitted through ATMS for further analysis. Founded on a constant flow of detection data, a harmonious co-existence of pedestrians, cyclists, motorcycles, and automobiles can be constructed with fewer road casualties.

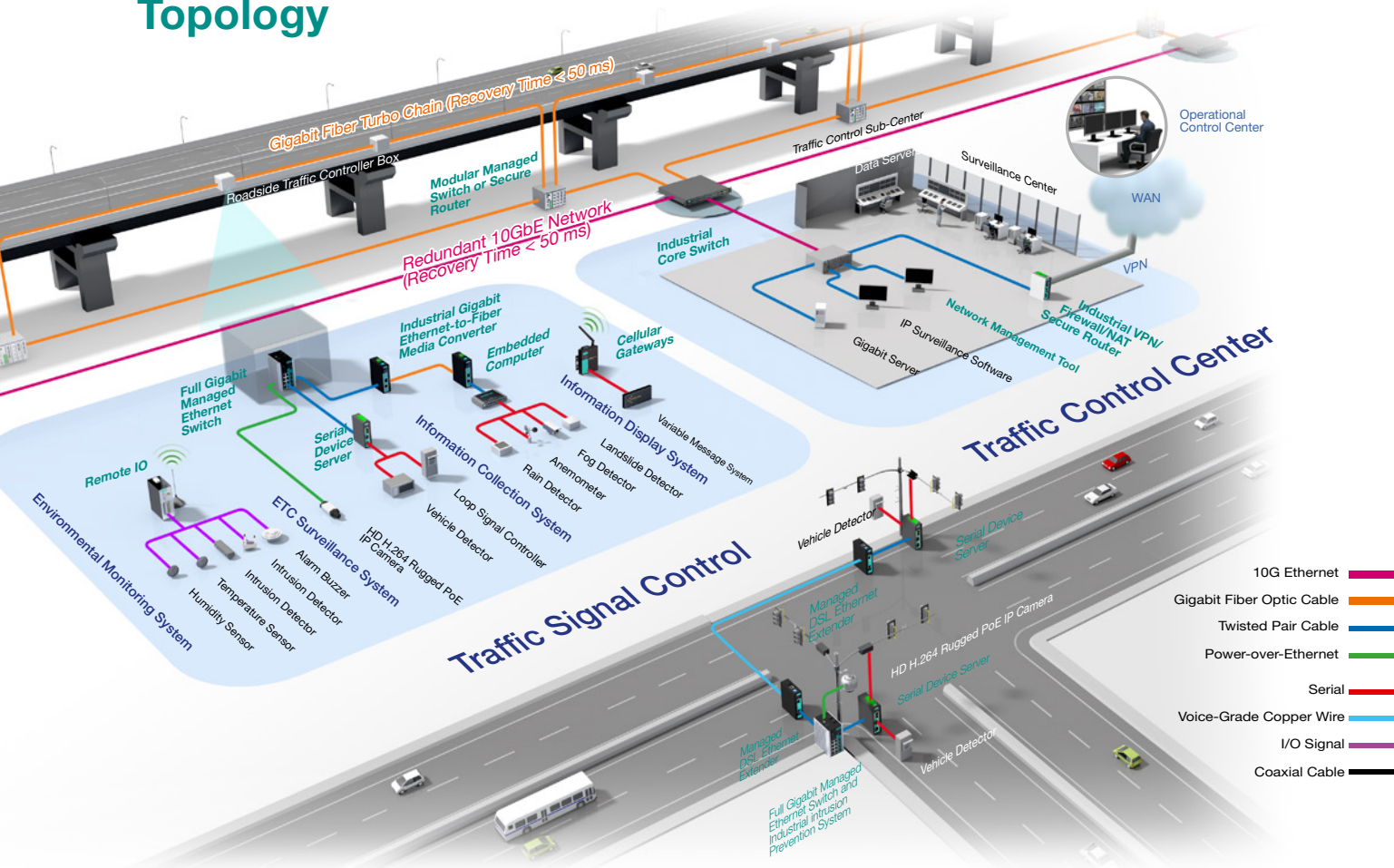
1. Source: https://ec.europa.eu/clima/policies/transport_en

2. Source: https://transport.ec.europa.eu/news/road-safety-4-000-fewer-people-lost-their-lives-eu-roads-2020-death-rate-falls-all-time-low_en

3. Source: <https://www.euractiv.com/section/road-safety/news/eu-has-worlds-safest-roads-recorded-fewest-traffic-related-deaths-in-2020/>

ATMS Topology & System Requirements

Topology



System Requirements



Reliable, high-capacity hierarchical IP network is required. ATMS need a multi-layered network to interconnect the large number of monitoring nodes that deliver traffic, road condition data, and signaling information to and from centralized controllers. The entire network needs to be resilient and sufficiently redundant to ensure that data is transmitted even when faced with network failures or unanticipated data bursts that exceed the network's capacity. Furthermore, the whole network needs to be easily managed and serviced using a straightforward management platform that can be remotely operated from a central control location.



Real-Time advanced traffic management systems play a vital role. To achieve real-time convergence, central controllers digest data from sensors monitoring current traffic and road conditions to operate variable message signs, roadway access controllers, traffic lights, and aiding the rapid progress of emergency vehicles. Advanced sensors that actively respond to pre-defined events can be used to update variable message signs in real time to warn drivers of accidents, treacherous weather conditions, and heavy traffic, resulting in safer driving conditions and more efficient and comfortable travel. Over-utilization of roadways can be prevented using controlled roadway access openings or giving greater access rather than slowing traffic flow, which can also prevent the accidents that often accompany stop-and-go traffic.



Visualization of network management can be a great help. The increasing number of smart sensors which are deployed at different field sites require more networking devices for data acquisition and communication. Consequently, traffic system networks can become a tremendous undertaking as they are complex. Configuring, maintaining, and troubleshooting these devices and networks can also be labor-intensive and time-consuming. Therefore, it is necessary to have a network management tool that visualizes networking device statuses and provides a user-friendly interface for mass configurations.



Efficient video surveillance systems supports traffic engineers to see current traffic levels, road incidents, and weather hazards. The video stream should use optimal video compression for efficient transmission over high-capacity networks. The routing must be capable of optimizing video stream transmission control so that little data loss occurs when network issues occur.



Multiple OT and IT protocols need to be supported. ATMS relies on multiple sensor data to provide insights for both traffic management input systems and information output devices used to convey messages to road users. The interfaces required may include serial-based or digital/analog data points so the connectivity solution of the ATMS should offer multiple yet flexible communication methods.



Secure critical data during transmissions is the norm. Network encryption and authentication over public wired and wireless networks are essential to protect information access and against cyberattacks. The networking devices of choice should meet cybersecurity standards such as NIST or IEC 62443 standards to protect transportation facilities worldwide amid threats to public and data security. Furthermore, deep packet inspection for industrial protocols and technologies like Intrusion Prevention Systems (IPS) and virtual patching help to build defense-in-depth security. These concepts are key to maintain system availability, network visibility, and minimize risk.



Compact size, rugged, and reliable solutions are required for roadside cabinets and outdoor environments. Traffic controllers, network cameras, and a variety of sensors must be rugged and small enough for wide temperature environments and roadside cabinets. This is important to provide constant remote traffic flow information for automated traffic signal control. A durable system reduces operating costs throughout the lifecycle as equipment is deployed mostly in harsh outdoor environments.



Moxa Solution

Cloud Software Solution

Moxa's cloud software solution, ThingsPro Gateway and ThingsPro Edge running on Moxa Embedded Computers, enable easy connection to private and public cloud providers. Data will be instantly processed and analyzed enabling quick decision making.

Remote IO Products Have peer2peer Capabilities

Moxa remote IO products have peer2peer capabilities eliminating the need for a host computer which saves space for additional networking equipment.

Various Secure Transmission Solutions

Moxa has various secure transmission solutions, wireless, wired, and cellular, to meet live video and data transmissions needs anytime, anywhere.

IEC 62443-4-2

Staying at the cutting edge of market trends, Moxa provides a holistic OT/IT integrated network security solution. Most of Moxa's products have built-in security features based on IEC 62443-4-2, which can reinforce network infrastructure to equip it with device-by-device and layer-by-layer security capabilities.

Powerful Industrial-grade X86 Computers

Moxa offers powerful industrial-grade X86 computers and 1GbE/10GbE speed edge-to-core industrial switches for efficient video and data transmissions over long distances.

Compact and Rugged Product Designs

Considering limited space in cabinets and outdoor environments, Moxa has compact and rugged product designs such as embedded computers, cellular gateways, managed/unmanaged switches, device servers, and remote IOs to fulfill our customers' demands.

Redundant Technologies

Moxa offers flexible redundant technologies such as Turbo Ring, Turbo Chain (recovery time: fast Ethernet network < 20ms, Gigabit network<50ms), and GuaranLink (wireless).

Industrial IPS/IDS, Firewalls, and VPNs

Moxa provides high-speed industrial IPS/IDS, firewalls, and VPNs to protect critical assets and networks.

Central Supervision Network Management Software

Moxa has a central supervision network management software called MXview, which monitors most of Moxa's devices and supported 3rd party devices. This is done through SNMP MiB files, offering control centers the capability to monitor and visualize the connection status of networks via topology and multiple notifications. The control center can use this software for proactive monitoring, integration into IT/OT systems, maintenance (firmware upgrade and configuration change), failure troubleshooting, and network overview for operational use.

Connect Multiple Data Nodes Using OT/IT Protocols

Moxa ioThinX 4510 is ideally suited when customers want to connect multiple data nodes using OT/IT protocols and provide a secure linkage to the main IT environment.



Success Story

This involved designing a citywide traffic network and implementation of a modern Advanced Traffic Management System (ATMS). More than 140 traffic cabinets needed to be connected to the fiber network and ATMS, so all traffic cabinets and remote assets could be managed from one central location.

The City of Lancaster wanted to convert its existing copper traffic network to fiber in order to transform the traffic signal communication infrastructure from analog to digital, enhancing connectivity and transparency.

Our Moxa hardware solution brought full Gigabit speed all the way out to the edge – connecting every cabinet to the fiber infrastructure – future-proofing the network and providing the bandwidth necessary to support the data and video needs of today and tomorrow.

Developing Gigabit Fiber Networks for Toll Enforcement

Location: USA

- Reliable, extensive product portfolio ranging from edge Ethernet switches to core backbone switches
- Industrial-grade, full Gigabit product lineups for durable, future-proof applications
- Timely response and local support
- Ample experience in industrial networking



MXview
Industrial Network
Management
Software



ICS-G7826A
Layer 3 Managed
Ethernet
Switch



IKS-G6824A
Layer 3 Managed
Ethernet
Switch



EDS-G516E
Layer 2 Managed
Ethernet
Switch

Traffic Management Center



MXview
Industrial Network
Management Software

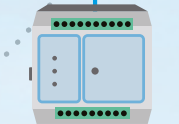


ICS-G7826A
Layer 3 Managed Ethernet Switch

Turbo Ring

IKS-G6824A
Layer 3 Managed
Ethernet Switch

EDS-G516E
Layer 2 Managed
Ethernet Switch



Battery
Backup System



CCTV
System



Video Detection
System



Traffic
Controller



Conflict
Monitor



Wireless
System

— Gigabit Fiber
— Ethernet

The core switch's two 10G uplink interfaces also provide future expansion possibilities for the city.

Why Moxa

Moxa is an industrial connectivity and networking solution provider with over 30 years of industry experience.

- Moxa has a comprehensive industrial networking, computing, and edge connectivity product portfolio.
- Moxa's products are certified for use in many industrial markets, easing the process of moving from design to device integration considerably.
- Moxa provides a one-stop-shop which is time-saving and free from concerns regarding the compatibility between the products and systems.
- Moxa has a strong distribution network in Europe and South Africa to support local customers.
- Moxa has an excellent reputation for technical/sales service and delivery support.

Moxa products have a long MTBF, which reduces system maintenance and repair costs. Product quality is highly assured.

Moxa has strong R & D ability, and focus on innovative product developments.



Strong Distribution Network

Moxa has a strong global distribution network to support local customers.



Complete High-Bandwidth Solutions

A complete portfolio of secure high-bandwidth solutions that empowers data-rich ITS applications.



Trust in Moxa Quality

Moxa products have a long MTBF, which reduces system maintenance and repair costs.

Choose an Industrial Computer

Looking for an edge computer for data processing at remote sites? Moxa offers an extensive product range for edge computing in extreme conditions, such as solar or wind energy, water and wastewater, transportation, or oil and gas applications.



Rugged Design

Built to withstand harsh environments and certified as per C1D2, ATEX/IECEx Zone 2, and DNV GL



Robust Connectivity

Supports LTE communication in wide operating temperature environment and approved by carriers



Long-term Support

Backed by an industry-leading 3- or 5-year hardware warranty and 10-year support for Moxa Industrial Linux



Embedded Computers



MC-1200 Series

- 7th Gen Intel® Core™ processor (Kaby Lake U)
- 2 built-in DDR4 memory slots; total capacity up to 32 GB
- Multiple expansion interface can incorporate hardware accelerators, such as VPUs, and support Intel® OpenVINO™ toolkit for AIoT application development.
- OT-to-Cloud connectivity ready
- Rich OT communication interfaces: LAN, serial, CAN, and DI/DO ports
- MQTT support and easy cloud connectivity to AWS, Azure, Ignition, and Alibaba Cloud IoT Platform with Moxa software

UC-8220 Series

- Arm Cortex-A7 dual core, 1 GHz
- 2 x GbE LAN
- Built-in LTE Cat. 4
- OT-to-Cloud connectivity ready
 - ✓ Rich OT communication interfaces: LAN, serial, CAN, and DI/DO ports
 - ✓ MQTT support and easy cloud connectivity to AWS, Azure, Ignition, and Alibaba Cloud
 - ✓ IoT Platform with Moxa's ThingsPro software

MC-1200 and UC-8220 Series



	MC-1200 series	UC-8220 series
CPU	-	Dual core 1 GHz ARM
Memory	8 GB pre-installed (Max 32 GB (16GB per slot))	2 GB
Storage Pre-installed	Depends from SSD or HDD capacity	8 GB onboard eMMC
Software	Debian 9 or Windows 10 IoT	Debian 9, ThingsPro Cloud software
Linux Kernel	For Linux Debian 9, kernel 4.9	4.4

Choose a Core Powerful Rackmount Switch



Moxa's industrial Ethernet rackmount switches boost your productivity with 10GbE/GbE performance, help protect against cyberthreats, and work reliably in harsh environments.



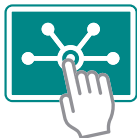
Robust Reliability

Network recovery times within milliseconds, high MTBF values with no fan or heater, hot-swappable operation and dual-isolated power supply



IACS (Industrial Automation Control System)-level Security

Enhanced network protection with built-in security features based on the IEC 62443 standard and security control for data and access protection



Fast Deployment, Easy Configuration

User-friendly web interface for L2/L3 network configuration and no complicated command line required

ICS Series



Features

- Bandwidth management to prevent unpredictable network status
- Turbo Ring and Turbo Chain (recovery time < 50 ms @ 250 switches), RSTP/STP, and MSTP for network redundancy
- 28 Gigabit ports
- Easy and visualized industrial network management with Moxa software
- -40 to 75°C operating temperature

ICS Rackmount Switches

	ICS-G7852A/ G7850A	ICS-G7828A/ G7826A	ICS-G7848A	ICS-G7752A/ G7750A	ICS-G7528A/ G7526A	ICS-G7748A
10GbE	4/2	4/2	-	4/2	4/2	-
GbE	48	24	48	48	24	48
Operating Temperature	-10 to 60°C	-40 to 75°C	-10 to 60°C	-10 to 60°C	-40 to 75°C	-10 to 60°C

Choose a Reliable, Versatile, and Secure Managed Switch



Moxa's layer 2 gigabit managed switches support a variety of useful management functions. The ready-to-use Turbo Ring can be set up easily using the web-based management interface.



Security

Security features based on the IEC 62443 standard, 3-level user security



Reliability

Industrial-grade design and compliant with multiple industry standards



Usability

OT-friendly HTML5 dashboards for device summary, smart research, and configurations

EDS Series



EDS-G500E Features

- Turbo Ring and Turbo Chain (recovery time < 50 ms @ 250 switches), RSTP/STP, and MSTP for network redundancy
- 8 to 16 Gigabit ports
- Easy and visualized industrial network management with Moxa software
- -40 to 75°C operating temperature

EDS Managed Switches

	EDS-P506E	EDS-G508E	EDS-G509	EDS-G512E	EDS-G516E
Gigabit Ports	-	8	4	8	12
Fiber Ports	-	-	-	4	4
GbE SFP ports	-	-	-	4	-
GbE combo ports	2	-	5	-	-
PoE ports	4	-	-	8	-

Choose a Secure Router to Build Your First-line Network Defense

Don't let cyberthreats stop your high-speed network operations. Moxa's EDR Series industrial secure routers are designed for automation networks, and integrated cybersecurity solutions that combine an industrial firewall, VPN, router, and L2 switching functions into a single product that protects the integrity of remote access and critical devices.



All-in-one Design

Highly integrated industrial 8+2G multiport secure router with firewall/ NAT/VPN/router/switch



High Performance

Throughput: 350k packets per second and boot time < 30 seconds



Deep Packet Inspection (DPI)

Support OT-specific protocols to protect vertical applications

EDR Series



Features

- All-in-one firewall/NAT/VPN/router/switch with 10 GbE ports
- Secure remote access tunnel with VPN and Stateful firewall protects critical assets
- Deep packet inspection and anomaly detection for industrial protocols (DNP3, ModbusTCP)
- Simplify configurations with the user-friendly Interface and quick settings for general automation protocol
- Rugged hardware design with complementary industrial certifications

EDR-G9010 Secure Router



	EDR-G9010
Ethernet Ports	8 x GbE + 2 x 1 / 2.5 GbE SFP
Layer 2 switch	•
Layer 3 functions	OSPF, RIP v1/v2, Static Route, NAT
Redundancy Protocols	RSTP, STP, Turbo Ring v2, VRRP
Security	Secure boot, HTTPS/SSL, SSH, IPsec, L2TP (Server), RADIUS, DDoS Protection
Stateful Inspection	Router, Transparent (Bridge) Firewall, Automation Profiles
Deep Packet Inspection	Modbus TCP/UDP, DNP3

Choose a Industrial Intrusion Prevention System (IPS) Device to Secure Your Industrial Network

Moxa's industrial cybersecurity solution is specifically designed to secure industrial networks from both an OT and IT perspective. The solution protects the network with a holistic cell-to-site defense approach to help you create a multi-layer defense for your industrial network.



Protect Mission Critical Assets from Malicious Cyberattacks

Ultra-compact industrial security box with IPS/IDS technology deployed in front of mission critical assets (computers, HMI, & PLC controllers)



Industrial Protocol Whitelist Control

Fine-grained policy enforcement based on DPI for industrial protocols



Bump-in-the-wire Installation Without Impacting the Network

LAN Bypass design to prevent a single point of failure and traffic overloading

IEC Series



Features

- IPS/IDS based on signature inspection
- Deep Packet Inspection for varieties of industrial protocols
- Regular virtual patches for new vulnerabilities
- Hardware bypass for continuous communication

IEC-G102-BP



	IEC-G102-BP
Ethernet ports	2 GbE (with bypass)
Latency	< 500 microseconds
Security	Secure boot, Virtual Patch, DDoS and DoS Protection, Scanning Protection, Policy Enforcement, Asset Detection
Deep Packet Inspection	Modbus TCP/UDP, CIP, Ethernet/IP, PROFINET-DCP, SLMP, Omron FINS, Siemens S7 Comm/+, MELSOFT, SECS/GEM, TOYOPUaC, IEC 61850-MMS
IPS/IDS	•
IPS/IDS	SDC/local storage, Syslog server

Choose a Serial Device Server

Bringing serial-based legacy devices into an Ethernet-based network can be easy. Moxa provides the best-in-class serial device servers for your industrial applications.



Your Trusted Serial Partner

We pledge to provide long-term availability of serial products and continuous driver support



Intuitive User Interfaces

Intuitive user interfaces that simplify configuration and operation, making connectivity simple and easy



Field-Proven Quality

Field-proven quality that endures harsh environments for any industrial applications

Terminal Server Series



Features

- Secure operation modes
- Supports IPv6
- Port buffers for storing serial data when the Ethernet is off-line
- -40 to 75°C operating temperature

Secure Serial Device Servers



	Model	NPort 6150	NPort 6250	NPort 6450	NPort 6610	NPort 6650
Ethernet	10/100BaseTX (RJ45)	1	1	1 (Up to 3 with Network Expansion Modules)	1 (Up to 3 with Network Expansion Modules)	1 (Up to 3 with Network Expansion Modules)
	100BaseFX (SC Connector)	-	1 Multi-mode or Single-mode (Model Specific)	(Up to 2 with Network Expansion Modules)	(Up to 2 with Network Expansion Modules)	(Up to 2 with Network Expansion Modules)
	IPv6 Support	•	•	•	•	•
Serial	Serial Standard	1	2	4	8/16/32	8/16/32
	Serial Port	1	2	4	8/16/32	8/16/32
	Windows/Linux/ Fixed TTY Drivers*	•	•	•	•	•
	Secure Operation Mode	Reverse SSH, Secure Pair Connection, Secure Real COM, Secure TCP Client, Secure TCP Server Default				
Security	Login Authentication	password, support of RADIUS, TACACS, TACACS+ authentication servers				
	Console Management	HTTPS (TLSv1.2 and above, with public certificate import), SSH, SNMPv3				
	Access Control	Account Management, Accessible IP List				
	Data Confidentiality	Serial Data Encryption, Encrypted Configuration File				

* List of supported OS:
Windows 10, Windows 8, Windows 7, Windows Vista, Windows XP, Windows 2000, Windows NT, Windows Server 2012, Windows Server 2008, Windows Server 2003, Windows CE 5/6, Windows XP Embedded, Linux 4.0 x86/x64, Linux 3.x x86/x64, Linux 2.6 x86/x64, Mac OSX, QNX 6, QNX 4

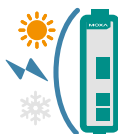
Choose a Media Converter

Whether it's media conversions between different serial interfaces or extension requirements for long-distance communication, you can find your multiple media converters here.



A Wide Selection

Multiple solutions to enable network extensions for both serial and Ethernet interfaces through fiber networks



Industrial-grade Reliability

Designed to endure wide operating temperatures and high EMI immunity, backed by industrial certifications



Flexible Deployment

The plug-and-play and modular design makes our media converters easy to deploy in any application

IMC Series



Features

- 10/100BaseT(X) to 100BaseFX
- Link Fault Pass-Through (LFP) (media converters should work as a pair)
- -40 to 75°C operating temperature range

IMC Media Converter



Basic
Entry level, plastic housing



Standard
General purpose, aluminum housing



Gigabit
High-bandwidth data, video applications



Advanced
Harsh environment, industrial certifications



Gigabit
High-bandwidth data, video applications



Basic
Entry level, plastic housing



Standard
General purpose, aluminum housing

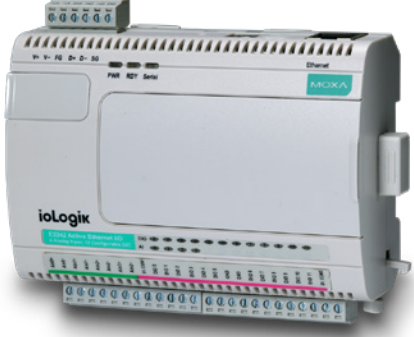


Advanced
Harsh environments industrial certifications

	Ethernet-to-fiber Converters					Serial-to-fiber Converters		
Model	IMC-21	IMC-21A-S-SC-WDM	IMC-21GA	IMC-101	IMC-101G	TCF-90	TCF-142	ICF-1150
Interface A	10/100 BaseTX (RJ45)	10/100 BaseTX (RJ45)	10/100/1000 BaseTX (RJ45)	10/100 BaseTX (RJ45)	10/100/1000 BaseTX (RJ45)	RS-232	RS-232/422/485	RS-232/422/485
Interface B	100 BaseFX	100 BaseFX	100/1000 BaseSX/LX, 100/1000 BaseSFP slot	100 BaseFX	1000 BaseSFP slot	100 BaseFX	100 BaseFX	100 BaseFX
Fiber Ring	-	-	-	-	-	-	•	•
Port Power	-	-	-	-	-	•	-	-
Port Alarm	-	-	-	•	•	-	-	-
Power Alarm	-	-	-	•	•	-	-	-
Serial Isolation	-	-	-	-	-	-	-	2 kV (I model)
Serial Surge	-	-	-	-	-	-	-	1 kV
Industrial Certification	-	-	-	C1D2, ATEX, IECEx	C1D2, ATEX/ IECEx	-	-	C1D2, ATEX/ IECEx

Choose a Remote I/O Product

Moxa provides a wide range of remote I/O products for industrial automation in factories, energy and transportation applications, and city infrastructure.



Multiple Protocol Support

Supports various IT protocols and Modbus TCP protocol for easier deployment in different applications



Easy Configuration and Deployment

Supports a built-in web interface for quick configuration and an utility for mass deployment



Wide Selection

Compact standalone and modular I/O solutions for versatile data acquisition applications

Remote I/O Series



Features

- Active OPC Server for seamless connection to SCADA systems
- Smart alarm management with email, SNMP trap, TCP, UDP
- Front-end intelligence with patented Click&Go Plus™ control logic, up to 48 rules

Gain Visibility to Boost Your Network Availability

MXview is an industrial network management software that provides full visibility and troubleshooting functions for OT networks to ensure maximum uptime throughout all stages of network deployment, management, and maintenance.



Visualization for Easy Operation



Network Insight for Uptime Optimization



Easy Integration Into Your IT/OT System

Try Out MXview



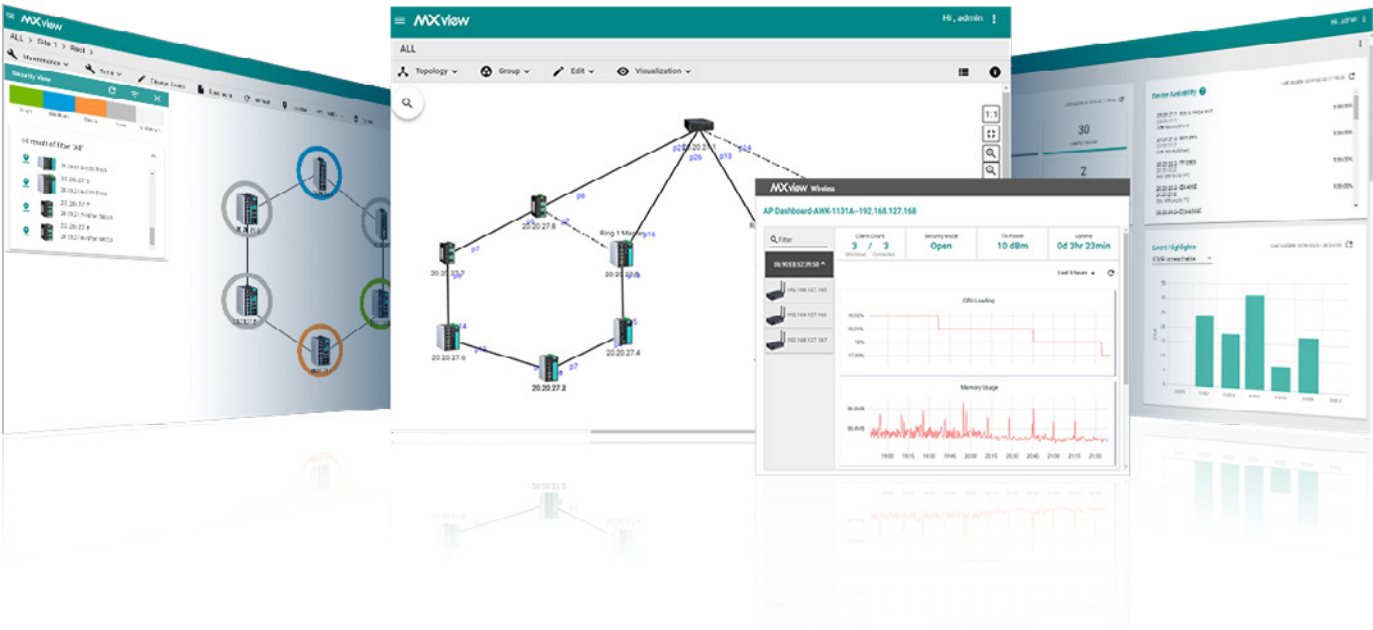
Download the free trial version [here](#)

Features

- Live topology visualization
- Comprehensive analysis and historical data report
- Easily embed MXview into OT/IT systems
- Dashboard view with a complete network summary
- Instant alerts with multiple communication systems

ioLogik E2200 series

Available Models (Operating temperature - Standard: -10 to 60°C (14 to 140°F); wide range (-T): -40 to 75°C (-40 to 167°F))							
Inputs/Outputs	E2210(-T)	E2212(-T)	E2214(-T)	E2240(-T)	E2242(-T)	E2260(-T)	E2262(-T)
Digital Inputs	12	8	6	—	—	—	—
Digital Outputs	8	8	—	—	—	4	4
Relays	—	—	6	—	—	—	—
Analog Inputs	—	—	—	8	4	—	—
Analog Outputs	—	—	—	2	—	—	—
DIOs	—	4	—	—	12	—	—
RTDs	—	—	—	—	—	6	—
TCs8	—	—	—	—	—	—	8





Your Trusted Partner in Automation

Moxa is a leading provider of edge connectivity, industrial computing, and network infrastructure solutions for enabling connectivity for the Industrial Internet of Things (IIoT). With over 30 years of industry experience, Moxa has connected more than 65 million devices worldwide and has a distribution and service network that reaches customers in more than 80 countries. Moxa delivers lasting business value by empowering industries with reliable networks and sincere service. Information about Moxa's solutions is available at www.moxa.com.

Moxa Americas

USA

Toll Free: 1-888-MOXA-USA
Tel: +1-714-528-6777
Fax: +1-714-528-6778
usa@moxa.com

Brazil

Tel: +55-11-95261-6545
brazil@moxa.com

Moxa Europe

Germany, France, UK

Tel: +49-89-37003-99-0
Fax: +49-89-37003-99-99
europe@moxa.com

Moxa Asia-Pacific and Taiwan

Asia/Japan/Taiwan

Tel: +886-2-8919-1230
Fax: +886-2-8919-1231
asia@moxa.com
japan@moxa.com
taiwan@moxa.com

India

Tel: +91-80-4172-9088
Fax: +91-80-4132-1045
india@moxa.com

Russia

Tel: +7-495-287-0929
Fax: +7-495-269-0929
russia@moxa.com

Korea

Tel: +82-2-6268-4048
Fax: +82-2-6268-4044
korea@moxa.com

Moxa China

Shanghai

Tel: +86-21-5258-9955
Fax: +86-21-5258-5505
china@moxa.com

Beijing

Tel: +86-10-5976-6123/24/25/26
Fax: +86-10-5976-6122
china@moxa.com

Shenzhen

Tel: +86-755-8368-4084/94
Fax: +86-755-8368-4148
china@moxa.com