Drive Into a Safe Future With Efficient Intelligent Transportation Systems

System Requirements

- Effective traffic management solution for communicating between vehicles, operators, and onsite control station
- Remote monitoring for detection of onsite failures
- Real-time data collection from various roadside sensors

Why Moxa

- Reliable products for onsite monitoring and control
- Complete solution for real-time response
- Secure and stable operation in harsh conditions

Moxa Products

V2403C Series
Rugged IIoT Embedded Computer

- Cellular and Wi-Fi 5 wireless capability with Gigabit Ethernet
- Certified by Azure and AWS
- Protected against unstable power sources with power ignition management
- Provides robust operations in environmental conditions with -40 to 70° C operating temperature and MIL-STD-810G conditions

EDS-4012 Series
Industrial Managed Switches

- High-capacity 90 watts IEEE 802.3bt PoE to supply power-intensive devices
- Fast Ethernet switches with the option for four Gigabit SFP uplink ports
- Fast recovery time (< 20 ms @ 250 switches) to avoid communication loss
- Compliant with the IEC 62443-4-2 cybersecurity standard

In intelligent transportation systems (ITS), communication is the key to providing safe roads for commuters in urban areas. Road safety and efficiency are highly dependent on real-time information and effective communication. To ensure safety and maintain smooth flow of traffic across roads, tunnels, and bridges, intelligent transportation systems rely on data for traffic flow, speed, and density, as well as weather conditions and surveillance videos.

Moxa Solution

To drive towards a safer and smoother future, an intelligent IoT-enabled transportation solution is key to ensuring commuter safety and a hassle free commute by bringing vehicles, network infrastructure, and passengers into the ambit of an ITS system. To increase traffic flow, reduce congestion, and improve incident response times, Moxa provides a solution to process and store real-time information about traffic conditions, which helps to reduce latency, lower data communication and storage costs, and increase network availability. Moxa's V2403C Series, a cutting-edge computing platform, acts as a roadside unit (RSU) for collecting data from sensors and surveillance videos from cameras and is a bridge to the ITS server for real-time communication via Moxa's EDS-4012 Series managed switches. Turbo Ring and Turbo Chain technologies for recovery time of less than 20 ms and STP/RSTP/MSTP for network redundancy help maintain stable networks for real-time communication.