Advanced Network Performance for Video Surveillance Systems

Surveillance systems play a vital role in enhancing security and operational efficiency in many industrial applications. The slim and rugged SDS-3000/G3000 Series smart switches offer a highly cost-effective means to ensure stable system operations with minimal effort.

High Power Supply

Up to 8 PoE ports capable of providing up to 36 W per port to power more power-hungry PDs (powered devices)

Superior Network Performance

Full Gigabit bandwidth with SFP options for fast, long-distance transmissions of video data

Remote Operational Efficiency

Smart PoE software to perform remote management and status monitoring, including device failure checks for automatic error handling

Do Things Smartly With Moxa's Smart Switches

Our comprehensive smart switch portfolio provides the simplicity and necessary features OT engineers need to maintain reliable operations in a variety of automation applications.

SDS-3000/G3000 Series
6/8/10/16-port Industrial Smart Ethernet Switches

- 6/8/10/16-port Fast Ethernet and full Gigabit models with SFP options
- Up to 8 PoE ports with up to 36 W power output per port (PoE models)
- Supports the EtherNet/IP, PROFINET, and Modbus TCP industrial protocols
- Supports RSTP, STP, and MRP redundancy protocols for enhanced reliability
- Intuitive web interface for easy configuration and monitoring
- Security features based on the IEC 62443 standard

MOXA®

Remote Video Surveillance for Factory Automation

Why Moxa

- Full Gigabit PoE models with up to 8 PoE ports to power IP cameras delivering up to 36 W of PoE power per port
- Built-in Smart PoE software enables monitoring, diagnostics, and recovery of remote PDs
- Multiple models with SFP options to enable long-distance data transmissions

Product Showcase

SDS-3000/G3000 Series
Industrial Smart Ethernet Switches

- Up to 10-port full Gigabit PoE switches with up to 8 PoE ports
- Security features based on IEC 62443 standard
- Smart PoE software for easy PoE network links, diagnostics, and monitoring
- Intuitive web interface for easy device configuration, monitoring, and management
- Ultra-compact design with multiple mounting options for more flexibility when installing in confined spaces

A large material handling company sought to deploy a comprehensive surveillance system for multiple new centrally controlled plants in different locations. High-speed video transmissions for remote diagnostics and monitoring was a key requirement to ensure operational safety, security, and efficiency.
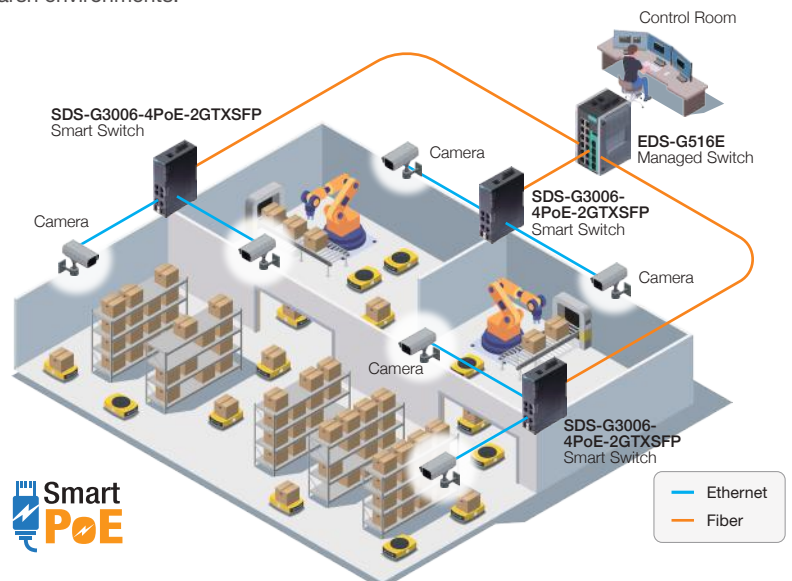
System Requirements

- PoE capabilities with sufficient power to simplify the deployment of surveillance devices within the existing plant
- Support for remote network monitoring and troubleshooting for operational efficiency
- Network devices capable of long-distance data transmissions across different plants

Moxa Solutions

Surveillance systems play a vital role in enhancing security and operational efficiency of the manufacturing plant. Reliable network connectivity ensures seamless and stable transmission of video data from IP cameras back to the control center for remote monitoring and diagnostics.

The SDS-G3000 Series Gigabit PoE smart switches offer 1 Gbps bandwidth and up to two fiber uplink ports for long-distance video transfers, making them ideal for large-scale installations. These switches transport both power and data over a single network line, eliminating the need for an individual power supply for each camera or a traditional power box. This reduces cabling complexity and minimizes installation costs. With the built-in Smart PoE software, engineers can monitor the status of connected PDs (powered devices) and set automatic actions, such as auto failure checks and recovery actions. This helps ensure network reliability and reduces management efforts. The SDS-G3000 Series can deliver up to 36 W of PoE power per port and supports a high-power output mode to temporarily supply peak power. In addition, these industry-certified smart switches feature a rugged IP40 design and a -40 to 75°C wide operating temperature range, making them perfect for outdoor or harsh environments.

Powering Mobile Surveillance for Remote Areas

Why Moxa

- Multiple PoE models with different port counts and Gigabit bandwidth

- Supports Smart PoE software features for easy remote monitoring and maintenance

- Rugged IP40 design with wide temperature support to ensure reliable connections in demanding environment

Product Showcase

SDS-3000/G3000 Series
Industrial Smart Ethernet Switches

- Up to 10-port full Gigabit PoE switches with up to 8 PoE ports

- 36-watt output per PoE+ port in high-power mode

- Smart PoE software for PoE network link visibility, diagnostics, and monitoring

- Unused port locking, SNMPv3, and HTTPS for enhanced network security

- IP-port binding to ensure critical devices can be replaced quickly without the need for IP address reassignments

A mobile surveillance units (MSUs) company offers solar-powered trailers for crime prevention and property monitoring in situations where temporary surveillance is needed, or in areas with little to no infrastructure. Remote diagnostics and monitoring capabilities are critical to maintaining all the different surveillance components, and are a priority for the provider when designing the next generation of MSUs.

System Requirements

- Ruggedized devices to withstand demanding outdoor environments

- PoE functionality to supply power to multiple connected devices

- Remote PoE management for monitoring and prompt maintenance

Moxa Solutions

Mobile surveillance units provide critical security coverage in a range of different scenarios, including construction sites, parking lots, and public services such as mobile clinics. To make such real-time surveillance possible from anywhere, reliable network communication is an absolute must.

A typical mobile surveillance unit is comprised of several security devices, including cameras, floodlights, strobe lights, and loudspeakers, all connected to a central hub. The SDS-3000/G3000 Series smart switches feature a rugged IP40 design and a -40 to 75°C wide operating temperature range, making them perfect for outdoor and harsh environments. PoE-capable SDS-3000/G3000 Series smart switches installed in outdoor cabinets power and connect these surveillance devices to the central hub with ease.

The ultra-compact form factor and PoE functionality of the SDS Series simplifies the device installation and wiring in tight spaces. With multiple PoE port and bandwidth combinations, the SDS Series easily accommodates a wide range of surveillance setups. The embedded Smart PoE function of the SDS Series allows engineers to monitor the power condition of PoE-powered devices across geographically scattered surveillance sites from a central control center. The Smart PoE function also supports useful troubleshooting and recovery tools such as automatic powered device (PD) failure detection, recovery rebooting, and optimal PoE port setup recommendations. Together, these features allow effortless troubleshooting, minimize the need for on-site visits, and maximize system uptime for around-the-clock surveillance.

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