Axis network cameras enhance management efficiency at Weichai Power.

Surveillance system for the largest auto parts enterprise group in China.

Organization:
Weichai Power Co., Ltd.

Location:
Weifang, Shandong, China

Industry segment:
Industrial

Application:
Safety and security, remote management and monitoring

Axis partner:
Beijing Videocomm Electronic Technology

Mission

Weichai Power Co., Ltd. is the largest auto parts enterprise group in China. The Weichai Industrial Park had incorporated monitoring systems from different manufacturers, which led to the entire industrial park consisting of 4 sets of monitoring systems operating independently. They were not managed together, causing many problems for system maintenance and expansion. At the current stage, the laboratories of the industrial park required a meticulous, comprehensive video surveillance system, that must be able to uniformly manage the existing monitoring systems.

Solution

Since the laboratories consist of highly sophisticated scientific equipment, the front end cameras must be efficient and provide high-definition videos. They must be able to handle all-weather monitoring of the equipment, and have excellent applicability in terms of bright lighting and high-temperature environments.

Based on the above requirements, Axis and its partner have designed a network video surveillance system for the Weichai Industrial Park. Each laboratory is equipped with 2 AXIS P5534 PTZ Network Cameras, with a total of 248 channels, thus ensuring the all-weather and real-time recording of the activities inside each laboratory.

In addition, network switches connect all AXIS P5534 Network Cameras into the existing LAN network of the Weichai Industrial Park. After deploying surveillance management at the laboratory monitoring center, via the "Watcher" network video surveillance system from Axis partner Beijing Videocomm Electronic Technology Co., Ltd., the digital video signal from the AXIS P5534 Network Cameras in the front end, back-end storage, video forwarding and equipment on the wall are centrally managed. This realized the 24 hours full frame rate storage of the HDTV 720P high-definition digital video and real-time video in the monitoring center.

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"After operating over one year, it has provided stable performance, and the 248 AXIS P5534 Network Cameras have had "zero failure rate". The system has increased efficiency and reduced the investment in human resources to achieve the desired result, and received praise from corporate management. When used in the laboratories, the Axis cameras overcome the changes in strong lighting, and provide comprehensive details to the video images. We have found that the video quality of the Axis network cameras has exceeded the cameras that Weichai has purchased before, and use a lower bandwidth."

Cong Jian-You, Weichai Power CIO.

The overall system uses a modular management and is compatible with the existing monitoring system, while it can also realize the user's different monitoring requirements through the electronic map module, real-time monitoring module, medial service module, device detection module, and alarm module.

Result

The large-scale application of Axis network cameras has realized a detailed management of high-definition video, from the collection and transmission of front-end video signal, to the real-time smooth browsing and storage of high-definition digital videos.

AXIS P5534 has PoE functionality and includes the High PoE power supply module. It requires only a single network cable to provide power and transmit video signals. It does not require individual control lines and power lines, thus saving 70% wiring cost. The system utilizes a purely digital architecture, with both the front end and back end management platform are connected through the TCP/IP protocol. Back end management does not require a lot of equipment and has simple wiring. It uses a uniform platform to realize maintenance of the entire system through only one management account and one client computer.

The video surveillance management system for the laboratories employs HDTV network cameras with ONVIF compatibility, which have good scalability. The implementation of an open standards framework is conducive to standardization, purifies technical specifications, integrates video surveillance with other security resources, and reduces redundant development and unnecessary manpower, material and time used. This improved product reliability, interoperability, and compatibility. It also facilitates system upgrade for Weichai Industrial Park's laboratory unified video surveillance system. Not only did the system achieved end-to-end HD management, it has also taken advantage of good system compatibility and development of software interface to provide a solid foundation for subsequent system expansion.

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