

Visual Management on Gas Tankers

2010-03-01

Location / Country :Japan

Product Solutions:

[VPort 351](#)

Full motion, 1-channel MJPEG/MPEG4 industrial video encoder

Introduction

Project Introduction

Gas tankers are massive ships with a limited crew, making them extremely difficult to monitor. Video surveillance systems, which use a large number of widely distributed devices, and fire prevention systems are both crucial elements of a gas tanker monitoring system.

The system used for this application is a legacy analog CCTV surveillance system that is completely independent from the main monitor and control SCADA system. With this system, the administrator responds to an event by first using the SCADA system to locate the event, and then accesses the appropriate surveillance camera from the CCTV system to view the location. The goal is to upgrade the system so that only one step is required. This is done by integrating the CCTV surveillance system into the SCADA system, in which case the surveillance system becomes a SCADA sub-system, making centralized control and monitoring possible.

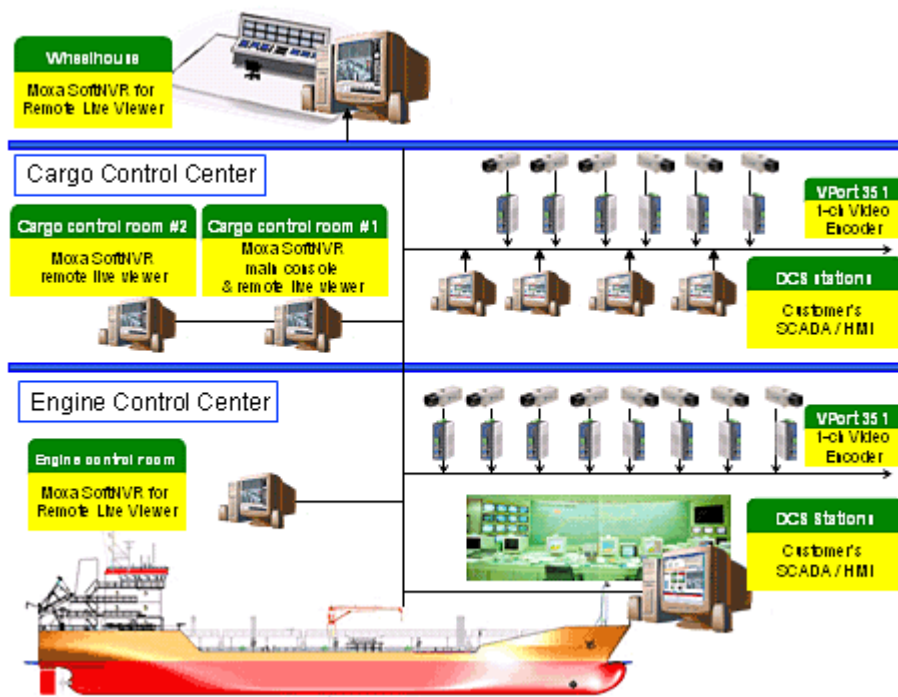
System Requirements

- Upgrade to an IP video surveillance system for integration with the existing SCADA system
- Live video display (through the SCADA system)
- Enable events in the SCADA system to automatically trigger live video display
- All the devices need to be of rugged design and have an anti-explosion defense

Moxa Solution

One of our customers would like to integrate their CCTV video surveillance system with their SCADA system on their gas tanker for faster and more convenient event monitoring and management. Considering the mission-critical nature and the harsh environment found on gas tankers, the system integrator opted to use Moxa's VPort 351, a 1-channel industrial video encoder that features a rugged industrial design with Class 1, Division 2 anti-explosion certification, to connect the analog CCTV PTZ cameras. The VPort 351 can instantaneously encode analog video to IP video streams, and then send the IP video streams to the remote control center for live display, video recording, and video analysis. In addition, the VPort supports multicast video streaming to allow multiple clients to receive video streams simultaneously—without consuming additional bandwidth. In this way, the captain and authorized crew members can easily view live video from their workstations.

For software integration, the system integrator decided to use Moxa's VPort SDK PLUS, which allows for easy programming of remote live-video displays and PTZ control for system engineers through DSC workstations. VPort SDK PLUS, along with CGI commands, ActiveX Control, and API SDKs, allow the system integrator to seamlessly integrate IP video into the software system. Moreover, Moxa's VPort Video Gadget, which is included with SDK Plus, allows for coding-free video applications in SCADA systems.



Product Applied

VPort 351 Industrial Video Encoders

- Industrial design with a -40 to 75°C operating temperature and a fiber optic Ethernet port
- Class 1, Div. 2 certification for use in hazardous location
- Video stream up to 30 frames/sec at full D1 (720 x 480) resolution
- 2-way (1 in/1 out) audio supported
- VPort SDK PLUS, including CGI commands, ActiveX control, and API SDK, for 3-party software developers

SoftNVR IP Surveillance Software

- Up to 64 channels in a single system
- Dual monitor display capability
- Simple and user-friendly setup for recording schedule
- Live viewing from popular web browsers or client software