

VIVOTEK and Technet Informatics, Ltd. Develop Onboard Monitoring System for Ocean-Going Vessels

A maritime nation since antiquity, today Greece is one of the centers of the world shipping industry. At over 250 billion Euros annually, shipping accounts for more than six percent of the country's GDP and employs nearly three-hundred thousand people. In an industry of this immense scale, onboard security is a primary concern.

The challenge: to install a shipside surveillance system able to withstand all weather conditions at sea

The demands on a sea-borne surveillance system for today's shipping industry are as complex as they are challenging. Technet informatics needed a system that could help ensure crew safety and security, continuously monitor a vessel's condition, ensure that proper procedures were being followed at all times, guarantee live monitoring of vessel alarm and loading procedures, and provide evidence in the event of emergencies, accidents, or piracy incidents. Of particular difficulty was the need for a camera to be installed above the main engine, where extreme heat and steam would destroy most camera systems.

The Solution: VIVOTEK Collaborates with Technet Informatics, Ltd. to Develop a Robust Shipboard System

A bulk vessel is a challenging environment in which to install a surveillance system. The construction of such vessels make complete coverage difficult and working conditions can be severe. Any number of issues can impact system operations, whether onboard or due to salt air and weather conditions. Despite these challenges, shipboard safety and security are of paramount importance, and the utilization of advanced technology is vital to ensure that correct procedures are being followed and that a safe working environment is maintained, as well as to provide evidence in the event of any accident or incident.

Vertical: Transportation
(on- board system)

Country: Greece

Solutions: FE8181V /
FE8181/ FE8180/ IP8162/
IP9171-HP/ ND8422P

Total Quantity: 17

Partners: [CPI S.A./](#)
[Technet Informatics Ltd](#)



Facing this challenge, a bulk vessel in Greece recently installed a complete shipboard system of IP-based security cameras in order to monitor the safety and adherence to procedure of onboard employees as well as to secure the cargo. The security system had to be robust enough to work reliably over the course of months spent at sea. Technet Informatics has been working in information and communications technologies since 2010 in conjunction with software developers and hardware distributors from around the globe. For this job, completed in February of 2017, they turned to VIVOTEK, the world leader in surveillance solutions, to take advantage of VIVOTEK's deep experience and broad range of camera types and to fulfill their need for specialized models to deal with a variety of shipboard conditions.

Chief among these was VIVOTEK's FE8181V fisheye camera with hard casing, installed above the main engine. Also included were two IP-9171HP and two IP-8162 Full HD fixed network cameras for exterior views, an FE8181 on the bridge, and six high-performance, low-profile FE8180s to monitor the decks, all linked together by two ND8422P/ND8322P eight/sixteen channel embedded plug-and-play network video recorders in the ship's office for easy monitoring.

VIVOTEK's FE8181V Fisheye Network Camera with 360° Surround Views

VIVOTEK's FE8181V is the latest fisheye fixed dome network camera from VIVOTEK. It features a detailed 5-Megapixel resolution sensor which produces superb image quality. Equipped with a fisheye lens, this camera is ideal for placement above the main engine because it is encased in a weatherproof, IP66-rated housing, and is further strengthened by the adoption of a rugged, IK10-design housing, enabling it to handle a wide range of operating temperatures and rendering it both weather- and vandal-proof.



The FE8181V true day/night camera features a removable IR-cut filter, maintains clear images 24 hours a day with built-in IR LEDs enabling the camera to provide uniform 360° surround illumination for clear and bright viewing at up to 10 meters, even in completely dark environments.

VIVOTEK’s High-Performance, Low-Profile, FE8180

This tiny fisheye camera is not only extremely low-profile, with a diameter of only 90mm, but is also able to be mounted directly on the wall to capture 180° panoramic views, or on the ceiling for a 360° surround view, with zero blind-spots. A single FE8180 can easily do the job of three to four standard CCTV cameras, dramatically reducing costs while blending in with any interior or exterior. It was an ideal solution for the wide open spaces of a ship’s decks – seeing everything, but remaining unobtrusive.

VIVOTEK’s ND8422P Sixteen-channel Embedded Plug-and-Play Network Video Recorder



Because of the large number and wide variety of cameras used in and around the ship, two ND8422P sixteen-channel NVRs were installed. The plug-and-play functionality of these NVRs frees security staff to concentrate on their jobs, not installation or maintenance, and allows them to monitor ship conditions on-the-go via their

EZConnect Mobile APP. With two NVRs installed for a total of seventeen cameras, the ship’s operators will be able to readily upgrade their system at any point in the future. In sum, the combination of simplicity of design, intelligent technology, and rugged protection from all elements makes VIVOTEK’s surveillance systems the only choice for the most demanding conditions on earth, or at sea.