VIVOTEK

With Great Power Comes Great Responsibility - The Medupi Power Station Project

200 VIVOTEK cameras, comprising the FE8174V and SD8363E models, were commissioned and installed in specific areas of the power station to monitor smoke stacks, conveyors, and canteens in the power station.

Basic Information:

- Vertical: Critical Infrastructure
- Place : Limpopo Province, South Africa
- Distributor: Miro
- System Integrator: Stallion Security
- Models: FE8174V, SD8363E
- Total Quantity: 200

Origins

The sheer size of Medupi Power Station presents numerous challenges in terms of security. Primarily, the site required a comprehensive solution that could not only effectively operate over extended distances, but also concurrently produce high-resolution video feedback.

Solutions

To fulfill Stallion's proposal, two hundred VIVOTEK cameras, comprising the FE8174V and SD8363E models, were commissioned and installed in specific areas of the power station to monitor smoke stacks, conveyors, and canteens in the power station.

Achievement

The diversity and flexibility of VIVOTEK products have allowed Stallion Security to repeatedly develop comprehensive and customized surveillance solutions to satisfy the unique requirements of Eskom.

Eskom – One of the World's Largest Power Companies

Eskom is a South African electricity public utility established in 1923. It is the largest producer of electricity in Africa, and is ranked seventh in the world in terms of power generation capacity, and ninth for sales. Eskom has engaged in the construction of the Medupi Power Station near Lephalale in the Limpopo Province, South Africa. This dry-cooled coal-fired power station is expected to become the largest in the world, comprising six 800 MW turbines for an accumulated capacity of 4800 MW.

The Entire Surveillance System Got Overhauled

The sheer size of Medupi Power Station presents numerous challenges in terms of security. Primarily, the site required a comprehensive solution that could not only effectively operate over extended distances, but also concurrently produce high-resolution video feedback. Moreover, the lack of onsite network infrastructure amplified the difficulty of producing an effective solution. Stallion Security, the original surveillance system integrator for Medupi Power Station, was re-commissioned in late October, 2014 by Eskom to overhaul the initial onsite surveillance system completely. Stallion's proposal was extensively review by the technical specialists of the Medupi Project Team, whom outlined several non-negotiable requirements. These requirements included the deployment of an ultra-high-resolution imaging system capable of not only surveying the entire site, but also zooming in on targets at a distance.

VIVOTEK' s Solutions – Seamless Integration of Quality and Performance

To fulfill Stallion's proposal, two hundred VIVOTEK cameras, comprising the FE8174V and SD8363E models, were commissioned and installed in specific areas of the power station to monitor smoke stacks, conveyors, and canteens in the power station.

A total of 131 FE8174V cameras were commissioned. This model features a 5MP CMOS sensor capable of producing 1080p Full HD images at 30 FPS. Equipped with a 1.5 mm fisheye lens for 180˚ panoramic view (wall mount) or 360˚ surround view (ceiling/floor/table mount) without blind spots, the camera is able to provide coverage of wide, open area like Medupi Power Station. Moreover, the FE8174V features a removable IR-cut filter, maintaining clear images 24 hours a day. The FE8174V's IP66-rated and IK10-rated vandal-proof housing effectively provide robust protection from, rain, dust and physical damage. The camera supports industry-standard H.264 compression technology, alleviating considerable strain on the already-lacking network infrastructure of the power station.

A total of 69 SD8363E cameras were commissioned. This model offers 1080p Full HD resolution at 30 FPS. The camera is equipped with a 20x optical zoom lens, producing images with exceptional quality, even when zoomed in at close range. Similar to the FE8174V, this model also supports industry-standard H.264 compression technology to conserve bandwidth. In addition, the IP66- and NEMA 4X-rated housing protect the camera against rain, dust, and corrosion, and increase the camera's durability against temperature fluctuations, rendering this model perfect for outdoor applications.

The cameras are connected to Milestone Systems XProtect Corporate. XProtect Corporate is IP VMS designed for large-scale, high-security deployments that demand high-performance surveillance. Using the software's single management interface, system administrators can efficiently control all cameras and security devices regardless of the system's size or if it is distributed across multiple sites. For systems demanding supreme situational awareness and precise response to incidents, XProtect Corporate has interactive maps linked to alarms and included support for XProtect Smart Wall. Furthermore the system can easily be adapted to specific and changing needs for video intelligence. The open platform technology enables optimized support for advanced cameras like VIVOTEKs, and the ability to use extension modules enabling functions like video analytics.

Customer Feedback

The diversity and flexibility of VIVOTEK products have allowed Stallion Security to repeatedly develop comprehensive and customized surveillance solutions to satisfy the unique requirements of Eskom. In addition, the holistic, integrated solution outlines the ease of the implementation and the use of the Milestone XProtect Corporate software with VIVOTEK cameras, making the holistic solution for Medupi Power Station a sustainable, scalable system for their future growth needs. The Medupi Power Station can easily expand its system based on situational and financial requirements in the future. Mr. Alvin Flaum, technical director at Stallion, reports, "The client is extremely happy with the quality of images produced by the VIVOTEK cameras."