

Pioneering Wireless Perimeter Security

and Communication for
Ghana's Largest Oil Terminal



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Introduction

The Bulk Oil Storage and Transportation Company Limited (BOST), Ghana's leading petroleum storage operator, faced critical operational losses due to theft and asset pilferage at its strategic storage terminals. To address these challenges, BOST commissioned JIDEM Security, a local security systems installer, to design a state-of-the-art perimeter surveillance system capable of 24/7 video monitoring and integrated communication. Wavesight's cutting-edge wireless network infrastructure enabled this vision by delivering a fully wireless IP CCTV system coupled with Public Address capability, the first of its kind in Ghana for such an industrial facility.

The Challenge

Confronted with growing theft-related losses, BOST required a holistic security solution that could:

- Provide uninterrupted perimeter surveillance coverage across large, complex bulk storage facilities without extensive cabling.
- Overcome logistical and physical challenges posed by the sprawling infrastructure and harsh outdoor environment.
- Integrate a robust Public Address over IP system for security operations communication.
- Allow real-time monitoring from a dedicated control room with multi-camera display and recording capabilities, supporting 24/7 security operations.

The Solution

Wavesight, in close partnership with JIDEM Security, implemented a resilient wireless IP CCTV network featuring:

- An end-to-end HD megapixel surveillance system with 55 strategically positioned IP cameras combining 1080p and 720p IR-equipped CCTV sensors, providing comprehensive day and night perimeter monitoring.
- A purpose-built wireless network infrastructure utilizing a broad range of Wavesight radio products and Industrial Interconnects engineered for reliable and high-capacity video transmission in industrial environments.
- Integration of an IP Public Address system leveraging the same wireless network, empowering security operators to communicate swiftly throughout the facility.
- Onsite Wavesight consultancy and commissioning support, ensuring rapid deployment with minimized operational disruptions during installation.

Results & Benefits

- Within hours of system activation, BOST management received actionable evidence on theft-related activities, allowing for immediate risk assessment and mitigation planning.
- The wireless IP CCTV deployment pioneered in Ghana's oil and gas sector demonstrated the scalability and efficacy of advanced wireless surveillance technology for critical infrastructure.
- Integrated broadcasting capabilities enhanced communication efficiency for perimeter security teams.
- Significant infrastructure cost savings were realized by avoiding traditional wired networks, reducing complexity and installation time.
- The solution's robustness supports future expansions and enhancements, ensuring long-term security and operational sustainability.

Conclusion

This landmark project underscores Wavesight's leadership in delivering sophisticated wireless IP CCTV surveillance solutions tailored for challenging industrial environments like bulk oil storage terminals. The collaboration with JIDEM Security produced Ghana's first wireless end-to-end IP CCTV system for petroleum asset protection, setting a benchmark for wireless security infrastructures across Africa and beyond.