

Industrial Wireless CCTV Surveillance

Network Deployment
at Eastern Coalfields,
West Bengal, India



CONNECTING YOUR WORLD

Introduction

Eastern Coalfields Limited (ECL) is a coal producer based in India, operating coal mines in Jharkhand and West Bengal. It is a fully owned subsidiary of Coal India Limited. Faced with the challenge of securing centralized surveillance and robust network connectivity across multiple mining locations, ECL awarded this project to Baxy Limited, who deployed Wavesight's advanced wireless network solution for a centralized CCTV Surveillance System.

About the Client

Wavesight supplied, installed, integrated, tested, commissioned, and continues to support the seamless functioning of the wireless network connecting multiple CCTV surveillance cameras across ECL's mine sites. The system leveraged industrial-grade IP radios providing Point-to-Point and Point-to-Multi-Point connectivity between cameras, Network Video Recorders (NVRs), and centralized servers at both the Area Office and ECL Headquarters through MPLS-VPN.

The Challenge

Wavesight's deployment included 158 Scorpion industrial-grade wireless radios capable of delivering up to 750 Mbps data rates over range of up to 5 kilometers. These radios form the backbone of the secure and reliable network needed to support high-quality, real-time video transmission for the centralized surveillance system.



Key Benefits of Wavesight's Wireless Solution

- Reliable, high-capacity industrial wireless connectivity for critical security infrastructure
- Scalable point-to-point and point-to-multi-point network supporting multi-site surveillance
- Seamless integration with existing CCTV infrastructure including NVRs and MPLS-VPN
- Enhanced operational safety and security through real-time centralized monitoring

Impact and Value Delivered

The wireless network solution powered by Wavesight's Scorpion radios enabled ECL to achieve a secure, scalable, and high-performance centralized CCTV surveillance system. This deployment enhances monitoring capabilities, improves operational safety, and supports digital transformation in a challenging mining environment.