

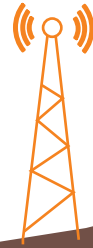
# AUTOMATION OF A MINE

Enabled through high availability connectivity

## OPEN SKY MINE UNDERGROUND MINE



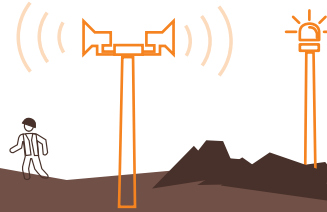
- Proximity Movement Detection
- Driver Health Monitoring / Fatigue Detection
- Autonomous / Remote Controlled Truck Control
- Measurement of dust and water levels
- Monitoring of crushing equipment, pumps and control systems / Predictive maintenance



## DIGITAL LMR NETWORK

- Fault detection
- Instant notifications
- Emergency shutdown
- Incident log
- LMR, LTE / 4G, 3G or Wi-Fi immediate communications underground or in the field and to the corporate offices

## VOICE, SIRENS AND ALARMS SYSTEMS



- Connection of an extensive network of paging systems, sirens, alarms and video security
- Remote activation for emergencies
- Immediate interoperability with Emergency and Public Safety Agencies

## INTEGRATED OPERATIONS AND MANAGEMENT CENTER



- Indoor and outdoor location
- Fleet tracking
- Miners Check In / Check Out
- Immediate communications with emergency agencies
- Mileage, fuel, tires tracking of vehicles
- Miner's safety