



Welcome to the future of engineering

MINING TECHNOLOGY

Communications, Telematics, Geotechnical Monitoring, Safety & Productivity tools

Communication Networks

Private LTE Communication Network

- Pit-to-Port private wireless network.
- Long range, High speed, mission-critical network for production environments.
- High-bandwidth data backhaul
- Huawei Cloud data center and MineHarmony OS.

Wi-Fi Communication Network

- 1GB/second backbone
- Wi-Fi hotspot (300m coverage)
- 8 X POE, 2 X non-POE ethernet ports
- 2.4GHz, 300Mbps & 5GHz, 800Mbps, Wi-Fi Transmission Power 250 mW
- IP67



Mobile Radio & Phone Network

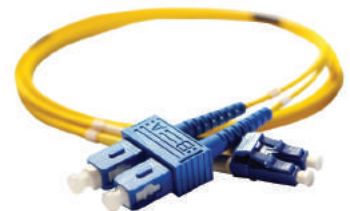
- Digital Mobile Two-way radio
- Radio fleet management
- Dispatch
- Voice and data communications
- Rugged mobile phone / tablet
- Vehicle mounted client
- Fixed telephone



WIRELESS MESH NETWORK



IO-LINK NETWORK



OPTIC FIBRE AND PATCH CORD

Sensing Technologies



Environment Monitoring

- Dust
- Gases
- Ground Movement

Sensors & Condition Monitoring

- Mine ventilation fans
- Conveyor belts & pump stations
- Hydraulic units
- Arc furnace tundish flow
- Screens/ Feeders



CCTV & ACCESSORIES



PoE POWERED CCTV SYSTEMS



PAN-TILT-ZOOM & FIXED CAMERA



SECURE WEB-BASED VIDEO STREAMS

Personnel Safety

FOG Monitoring

- **Manual:** measure bolt elongation with digital caliper and breakage with ohm meter.
- **Visual:** visual indication of bolt elongation and breakage
- **Real-time:** bolt elongation, breakage and vibration can be monitored in real-time over a wireless communication network.

People Tracking

- Wi-Fi/Bluetooth personal tracking
- 2-WAY communication
- Panic button & Man down
- Proximity detection system (PDS)
- Clip on to clothing OR Inserted in cap lamp



Evacuation Management

Alarm Module

- 110dB Sirens
- High intensity strobe lights
- Alarm triggered from the module or remotely from a control room

Lamp Room Solution

Specifications

- IP67 corded and non-corded cap lamps
- Lithium-ion battery powered.
- Designed to house and power tag for location tracking of personnel

Software

Fleet Management

- Utilization and availability
- Production reporting
- Speed management
- Haul road analysis
- Grade control
- Maintenance management
- Fuel management

Underground

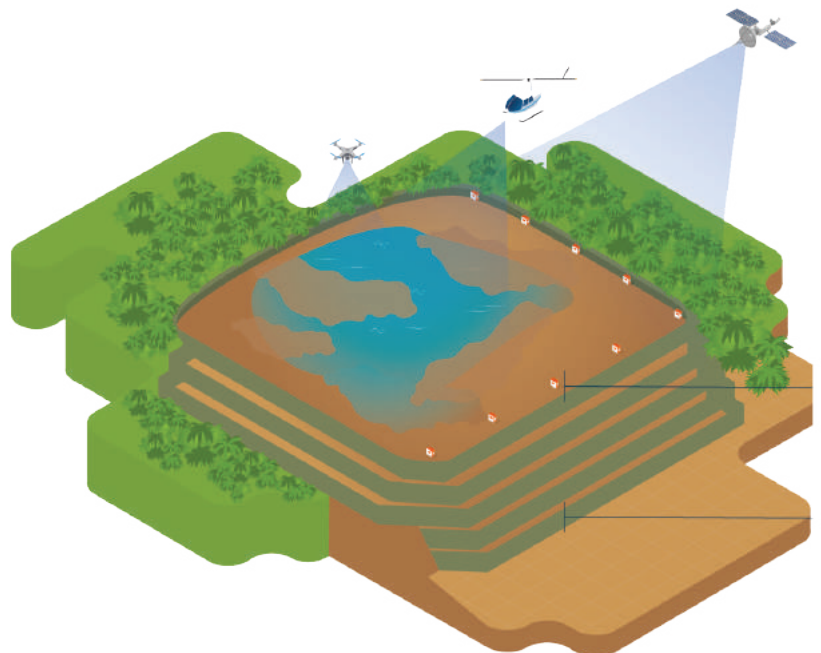
- People tracking
- Environment monitoring
- Roof bolt monitoring
- Evacuation management
- Evacuation management
- IP67



Geotechnical Monitoring

Failure risk monitoring, modelling and prediction.

- MineScope imagery, topography ground deformation (InSAR)
- Electromagnetics, magnetics, gravity
- Sercel S-scan passive seismic, Fiber DAS, DSS and DTS





About Kenlen Group Tech & IoT solutions

On a modern mine reliable communication is an essential utility similar to the arteries of a body. A digital network relays vital data to keep decision makers informed and in control of the mining process. Kenlen Group is the reseller and implementation partner of established global digital technology OEMs. Our OEM partners were carefully selected for solutions that have rugged design, simplicity of operation, and ease of maintenance suited to the conditions on the mines and mineral processing plants that we service.



**“You can’t improve
what you can’t measure”**

~ Peter Drucker



Kenlen Group Africa in Botswana operates different subsidiaries supplying mining equipment to the market for more than 10 years. The company is based in Gaborone at Gaborone International Commerce Park with operations in all major mining towns across Botswana and Zimbabwe.

Contact our sales team to find out more

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