AdCept Technologies Pvt Ltd

In collaboration with

Global Leader in Mining Communication with installations in over 400 Mines worldwide

MINE SITE TECHNOLOGIES
Australia

Technology Solutions
For
Open Cast Mines

OPENCAST MINING

Solution Portfolio

- ✓ *Wireless and wired Internet Protocol (IP) Networks for Open Cast (OC) Mines*
- ✓ *Two way IP Voice communication, IP Public Address (PA) System and Data transfer*
- ✓ *Radio Frequency Identification (RFID) based tracking and asset management system*
- ✓ *Positional and GPS based Dispatch Management system*
- ✓ *Networked Vehicle Diagnostics System*
- ✓ *IP based video surveillance system*
- ✓ *Mine Production Monitoring System*
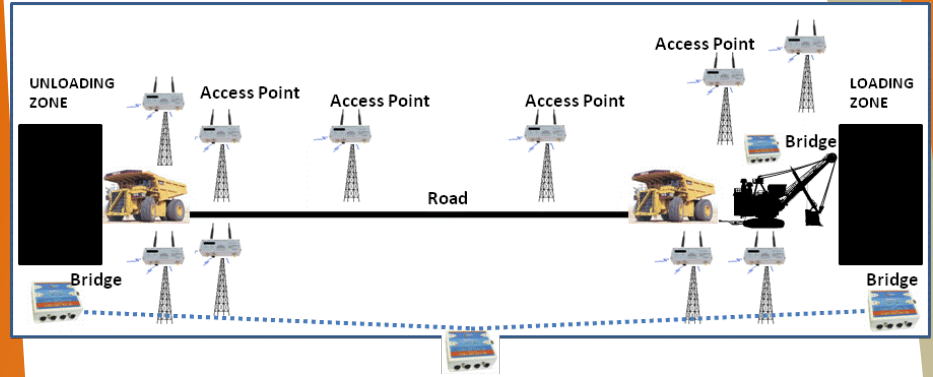- ✓ *Trip counting system*
- ✓ *Diesel Consumption Monitoring*

Simplifying Business through technology

Creating IP Networks for Open Cast Mines

In order for IP based applications to work, The Open Cast Mine will need IP Network coverage. AdCept Technologies Pvt Ltd will create a robust and resilient Wireless Local Area Network (WLAN) or Wired Local Area Network (LAN) tailored to the specific Mine. The Network will be fully owned by the Mine and there will be no monthly usage costs. The Network will support Broadband bandwidth enabling transfer of voice, video and data in real time
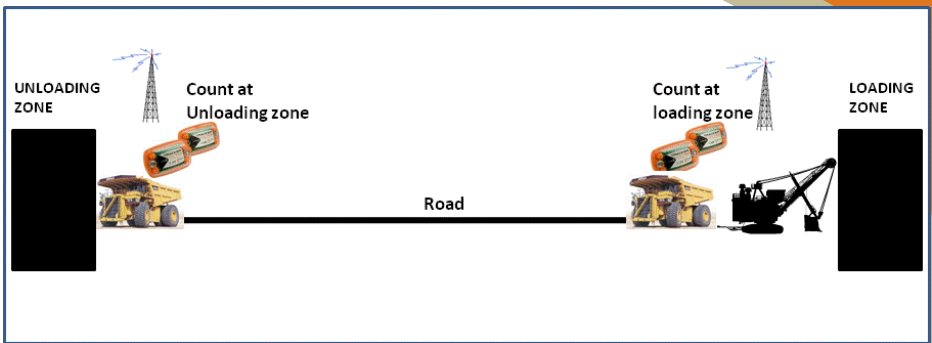
Mine Production Monitoring
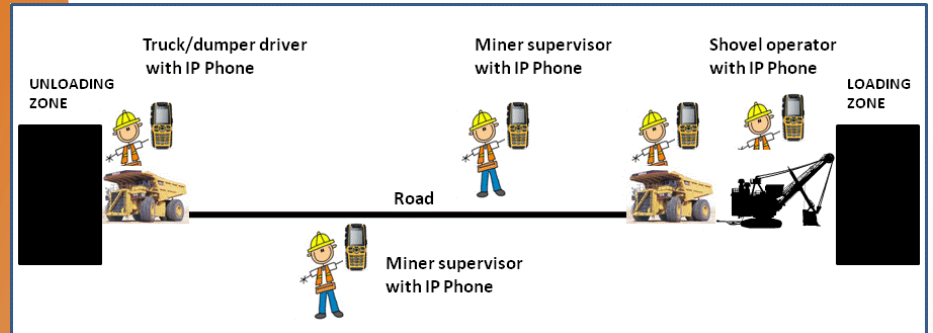
AdCept Technologies Pvt Ltd will enable IP phone communication in Open Cast Mines once the IP Network infrastructure has been deployed. IP phones will enable two way voice communications within the Mine and with others outside the mine with integration will local phone network. Data and file transfer will be enabled over the IP network so any software application can be deployed and run without any additional needs.

Two way Voice Communication and Data Transfer

RFID (Radio Frequency Identification) based Tracking and Asset Management

TRACKER is a tracking system developed by our foreign collaborator specifically for use in mines applications. The system tracks active Tags, carried by personnel or attached to vehicles and other equipment. Vehicle data is combined with mine location, enabling the generation of accurate reports based on real time position and movement trend data. This increases the accuracy and relevance of reports, leading to efficient identification of bottlenecks and advanced planning of vehicle maintenance. All the elements increase productivity through reduced down time and lower maintenance costs.

Trip Count System

Positional and GPS based Dispatch Management System
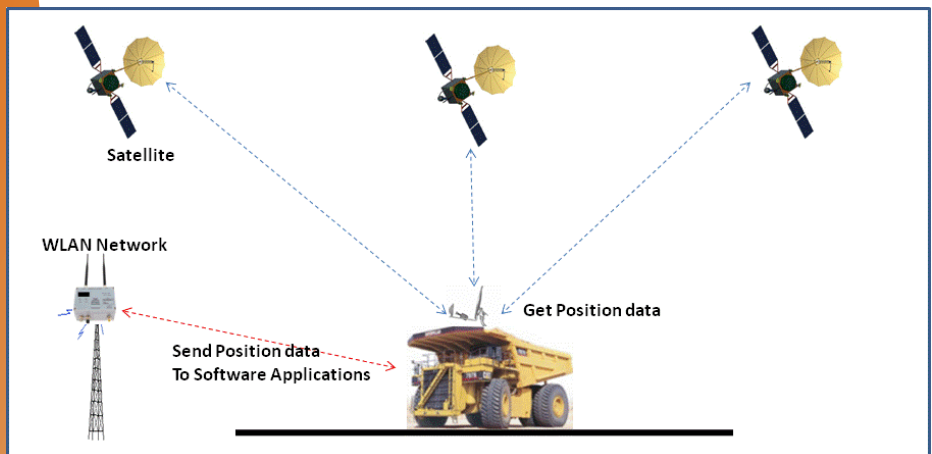
Dispatch system will allow identification of available dumpers/dozers and shovels at the beginning of each shift. A manager using a dropdown list within the software will be able to associate a "state" of the dumper/dozer and shovels. The software will have the ability to store maintenance schedule for dumper/dozer shovels. During that period it will make these equipments unavailable for assignment for the entire duration of maintenance. The available equipment will then be grouped based on customer specified criteria and assigned to shovels. The system along with the trip count system will allow the mine to judge the performance of the allocation of resources in real time. The resources could be re-allocated based on emerging scenarios and requirements during operations.

Networked Vehicle Diagnostics System

Active Wi-Fi Tag — Location data — Combined Location and Vehicle data — Wireless Network Switch — Payload Data — Engine Data — Vehicle Diagnostic Unit

AdCept Technologies Pvt Ltd will provide Vehicle intelligence platform. The innovative design enables seamless integration with major vehicle manufacturers' proprietary systems. Once installed, the unit will constantly monitor and log data in real time from a variety of sources on the vehicle as well as the location tags. The data collection software manages the information from each module. It also supports simultaneous upload from multiple modules whilst managing the network bandwidth, preventing congestion. The unit acts as a wireless bridge enabling a variety of in cab IP applications.
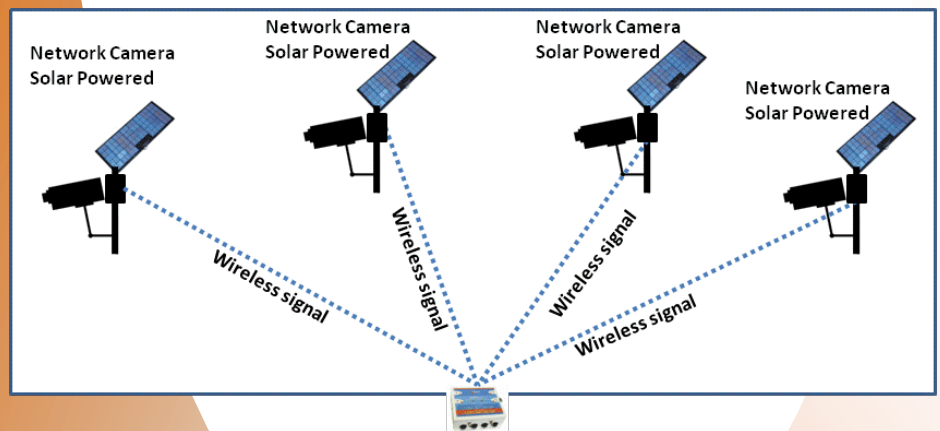
Diesel Consumption Monitoring

IP based Video Surveillance and Public Address (PA) System (Solar Powered extra)

Network Camera Solar Powered — Network Camera Solar Powered — Network Camera Solar Powered — Network Camera Solar Powered — Wireless signal