

SAFE AND DIGITALIZED UNDERSURFACE MINING

PROBLEM

Safety has long been a concern in the mining business, especially in sub-surface mining. There are numerous occupational hazards associated with mining, and collisions involving heavy vehicles are one of the major causes of injuries underground.

SOLUTION

To reduce safety risks and improve productivity, you need technology that offers full visibility and control—and it has to work miles underground. One way to reduce the risks is to install proximity detection devices which sound an alarm when a large piece of equipment is getting close to personnel or other vehicles. UWB tracking technology can be used to avoid collisions between vehicles and equipment in the mines.

TECHNOLOGY

Redpoint Positioning has developed patented, game-changing technology that combines the connectivity of the Internet of Things (IoT) with a powerful, real-time location system (RTLS). Our patented technology is the only available real-time location system that does not lose accuracy or latency in complex mining environments. Milliseconds matter when avoiding an accident.

Beyond that, by connecting vehicles, personnel, and the facility, you gain full visibility into your operations, empowering you with data to increase productivity and lower costs while creating a safer, more transparent working environment for personnel.

Redpoint's RTLS At-A-Glance



ACCURATE

Ultra Wideband (UWB) and maintains accuracy in the most complex environments



SCALABLE

Enables large and scalable coverage with unlimited tags



FAST

Very low latency means quick response times and more control, even when server is disconnected



CONNECTED

Anchors form a mesh network, equipment and people stay connected



OPEN

Easy integration with third-party applications and custom hardware

SAFETY

Connected vehicles can reduce collisions with geo-fencing, real-time location data, and collision avoidance systems.

Managing and tracking safety in the mining site is essential to minimizing risk and reducing costly accidents. Redpoint's system offers collision warnings and enables active collision avoidance by partnering with vehicle manufacturers.

Geo-fencing can automatically alert an operator if they have entered a hazard area like cave-ins and rock falls and need to slow down. In some cases, vehicles can be placed in a speed-restricted state when entering safe zones.

Our tags can be integrated with other sensors to detect air flow and avoid personnel exposure to: rock dust which can lead to diseases, gases in the mine which can lead to asphyxiation or be ignited, and excess heat.

EFFICIENCY

Clients can determine optimal routes, identify idle time, and ensure the fleet is the correct size.

Equipment, tools, and vehicles can be tracked to minimize wasted routes and for a more efficient digital working environment. Manual monitoring is costly, time-consuming, and inaccurate.

Redpoint reduces the need for ongoing workforce training and creates consistency in tracking and managing your operations. Unlimited tags are easy to install and remove as your operations change.

PRODUCTIVITY

Analyze data to optimize your operations and increase capacity.

We know it's hard to see the fleet undersurface --get the full visibility into your undersurface site and know where your vehicle and workers are in real-time. View zone information and real-time activity reports. Redpoint's high update rate (>50Hz) and zero latency solution means you'll always have the most up-to-date, accurate data at your fingertips.

PREPARING FOR THE FUTURE OF MINING

As you work to create safer, more productive mines, Redpoint is working to deliver the next generation of IoT-enabled features.

- Seamless integration with equipment, vehicles, and protective gear for a fully connected environment.
- People and machines working together.
- Active real-time location system features including collision avoidance.
- More rugged hardware to withstand the harshest conditions.

Redpoint is connecting a new generation of mining environments.

You work every day to responsibly source materials that power our communities. We're innovating to make the industrial workplace better.



Redpoint

See the moving world

To schedule a demonstration or learn more, contact us today at 617.207.4096 or info@redpointpositioning.com.