



Velocity IoT platform paving the way for Mining 4.0



simoco
wireless solutions

Upcoming events: One-day conference & dinner | Sydney 31st May 2023 | Brisbane 27th July 2023

Contents

Overcoming a major challenge in mining	3
Break down of Simoco's refuge chamber solution	4
Benefits of Simoco IoT refuge chamber solutions	5
Two-way mobile radio solutions	6
Our capabilities	7
Questions	8

Overcoming a major challenge in mining



- Mining companies that undertake evacuation procedures and safety tests are challenged in accounting for personnel in an acceptable time frame which keeps miners safe.
- The current average time to account for all personnel in one of the world's largest underground mines is **115 minutes**.
- This customer's HSE target was to ensure all personnel enter the nearest place of refuge within **15 minutes** and are identified within **60 minutes**.



Overcoming a major challenge in mining

- Reports suggest a self-rescuer is able to sustain life between **30-180 minutes** for chance of survival depending on conditions. The time to activate search and rescue is further limited if the verification process takes longer than anticipated.
- So the challenge was simple.
Use technology to speed up the verification process



Overcoming a major challenge in mining

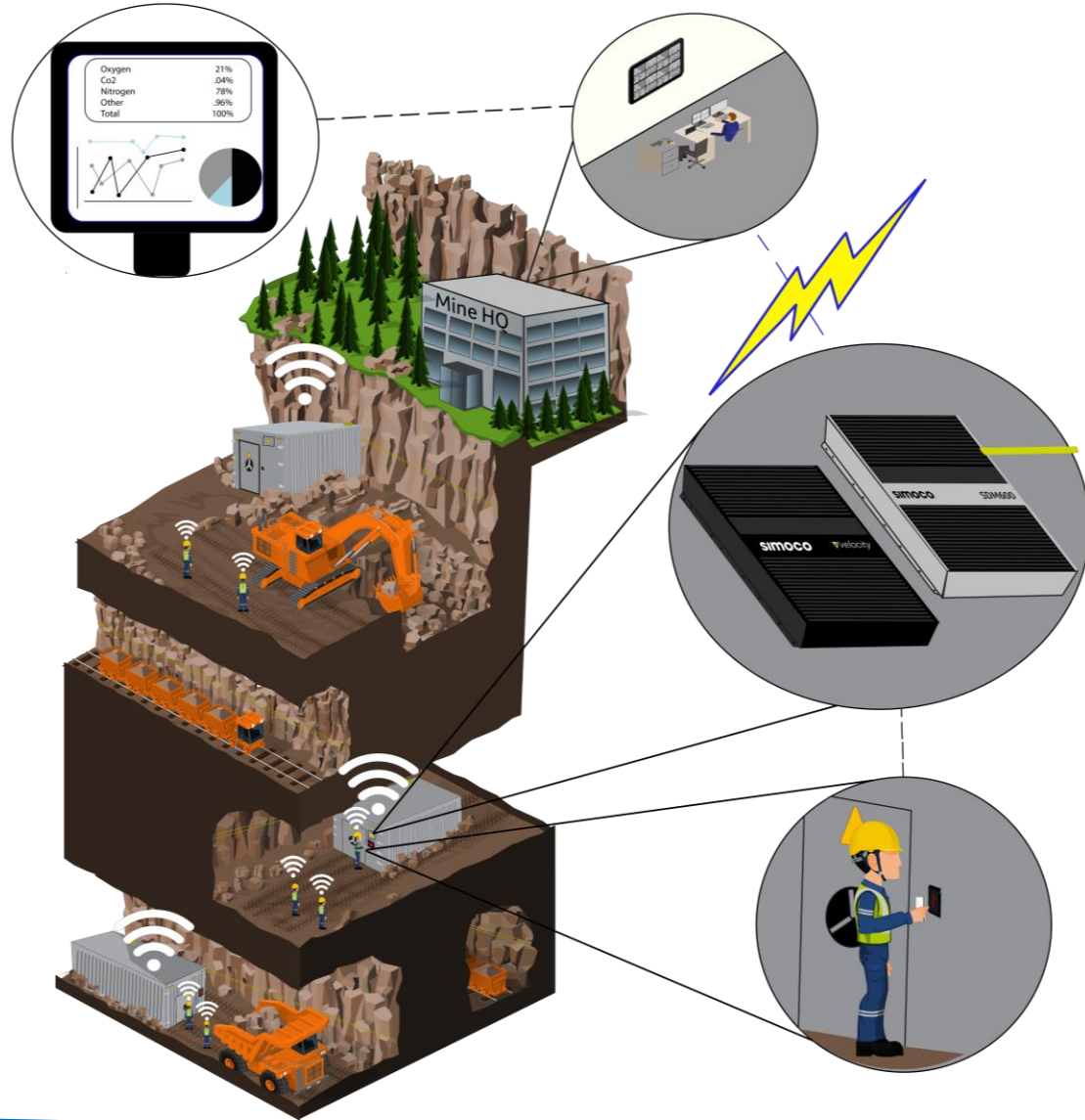


- The average cost of shutting down a major mine per day is approximately **\$4 million** which results in a significant loss of revenue.
- Cost is important, but the safety of the miners is paramount!

Simoco's IoT refuge chamber solutions provides better **safety, efficiency, utilisation** and major **cost savings** ultimately providing a return on investment.

**The shutdown of a
large mine costs
\$3,000 per minute....**

A break down of Simoco's refuge chamber solution



- When an evacuation or test run is invoked, the system determines which miners are still underground from the personnel database and reports them as missing.
- With the emergency evacuation underway, the miners move to the nearest place of refuge and swipe their card into the card reader.
- Card identity data is passed via the Velocity device over the radio network to the surface.

A break down of Simoco's refuge chamber solution



- Data is received by above the ground Velocity unit and marks the card owner as safe.
- Real time data is reported in a dashboard which highlights which personnel are accounted for in each of the refuge chambers.
- A separate list identifies those underground personnel that have not swiped into a place of refuge and need to be searched for.

Benefits of Simoco IoT refuge chamber solutions



Tracking of personnel allows accountability and efficient rescue operations



Simoco can integrate into existing infrastructure such as card readers and applications



Reduced delays, wastage, downtime and brings cost efficiencies



Improved productivity and safety



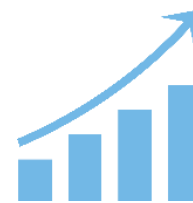
Ability to monitor atmospheric conditions such as gas levels, heat, dust and pressure within refuge chamber network



Data can be transmitted by a wired or wireless digital bearer



Developed here in Australia. Leading Australian R&D team developing new and innovative solutions and can service developments locally.



Expanded edge computing product range from Simoco

Two-way mobile radio solutions



Portable Radio



Mobile Radio



Modular Off-road Radio Facility (MORF)



Infrastructure



Applications



Transportable Rapid Deployment Repeater



SCADA and Telemetry



DMR Coverage Extender (DCE)

Our capabilities

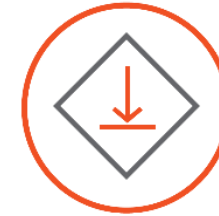
We provide end-to-end services tailored to your needs



RF Propagation &
Network Planning



System Design



Installation &
Commissioning



System Integration



Training



Support
Services



Maintenance



Management
Reporting



Managed
Services

Questions



THE VOICE OF THE WIRELESS
COMMUNICATIONS INDUSTRY

PARTNERS 2022-2023

ELITE PARTNERS

GOLD PARTNERS



EVENT PARTNERS

SILVER PARTNERS

