

# Frequently Asked Questions

## Connecting Guardian Refuge Chamber Monitoring

Addressing key questions on the installation of MineARC Systems Guardian Refuge Chamber Monitoring and how it can integrate with IT equipment on-site.

### What is Guardian Refuge Chamber Monitoring?

MineARC's Guardian Refuge Chamber Monitoring is designed to provide real-time monitoring, communication and diagnostics of refuge chambers while in standby and during an emergency.



Guardian Refuge Chamber Monitoring is an independent system that continuously inspects all vital refuge operating systems. During standby mode the system checks for component faults and monitors refuge chamber usage or entry to the chamber.

### How does the monitoring system connect with our IT infrastructure?

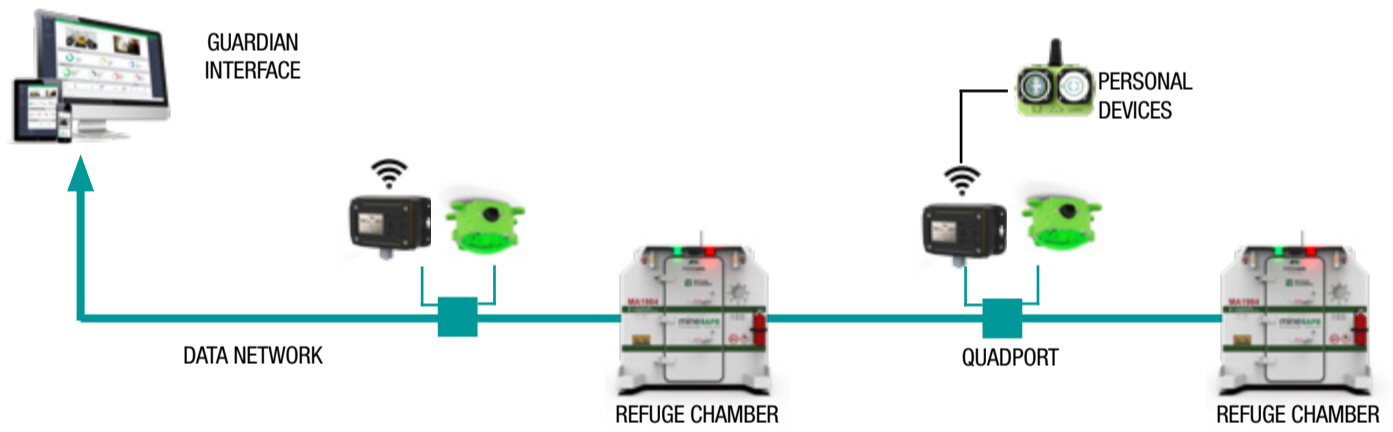
Connecting Guardian Refuge Chamber Monitoring will require the IT and Underground Communication departments. MineARC's Engineering Team is available to assist with set-up and troubleshooting.

#### How to Physically Connect Guardian Refuge Chamber Monitoring to the Underground Network

A typical example is connecting Guardian Refuge Chamber Monitoring to the sites network switch.

- Sites connection point to the chamber is located at the back of the VOIP Phone via a RJ45 connection. Access can be gained through the Comms Box at the rear of the chamber.
  - » If your site has existing physical data network installed, such as LTE (Long Term Evolution), Fibre or Wi-Fi, it will be required to be converted to Ethernet RJ45 at the chamber. This can be provided by MineARC during consultation before deployment.
  - » If your site does not have a nearby physical network or underground communications MineARC offers Guardian Comms System, a coaxial cable able to carry both power and data.
- Create a sub-network by assigning Guardian Refuge Chamber Monitoring to a Virtual Local Area Network (VLAN). The VLAN allows information from a refuge chamber to be isolated from general data traffic.

### Device Connection



#### Control Room Connection - Monitoring Refuge Chambers from Above Ground

- To access Guardian Refuge Chamber Monitoring from the control room, the VLAN must be made routable from the underground network to the above ground network.

#### Setting up the Guardian Refuge Chamber Monitoring Web Interface

- Out of the box, Guardian is setup with DHCP (Dynamic Host Configuration Protocol) which assigns IP address on the network automatically.
- For device management purposes, each Guardian installed refuge chamber can be configured with a static (permanently assigned) IP address.
- IP addresses can be easily configured by MineARC, which is organised in the prebuild process, or by your sites IT department.

### Does it need the internet?

Simply put, no. Guardian Refuge Chamber Monitoring can operate locally without the internet.

But, access to a secure internet connection will allow additional features including push notifications, updates, and video calling through the VOIP Phone within the refuge chamber.

### How is the system hosted? What needs to be installed?

- This monitoring system does not need users to install equipment on the server.
- Each compatible refuge chamber has its own internal server, which allows it to self-host the local website.
- The embedded server collects data from each system within the chamber, interprets information, and displays the results on a secure webpage.

### How can I view the webpage?



- Once set up, Guardian Refuge Chamber Monitoring can be viewed via smartphone, tablet or computer.
- Just type Guardian-(chamber number)/ into the URL bar.
- As it is a locally hosted site, this ensures privacy and security concerns are addressed.
- The overview tab allows you to navigate through all chambers that are equipped with Guardian Refuge Chamber Monitoring on your local network.