



Overview

Minera San Cristóbal, the world's sixth-largest producer of zinc and third-largest producer of silver, is an open-pit mine in the Potosi district of southwestern Bolivia. The mine has recently deployed a Wi-Fi network for the mine operators adopting Altai Super Wi-Fi technologies

The challenges of mines deployment are usually relevant to its landscapes. The open-pit mine in San Cristobal District occupies an area around 13 km² and 19 km of perimeter with no sufficient infrastructure for installation of access points. In other terms, in order to reduce the installation costs, only long range/macro-coverage solutions are suitable for open-pit mines like Minera San Cristóbal. That was the reason why Altai was selected for such a challenging environment, as Altai is the unique vendor able to meet and exceed the requirements. With the patented technologies, Altai APs are able to cover a much larger area than typical outdoor Wi-Fi Access Points without compromising the capacity, signal strengths and number of concurrent users.

Altai's team has conducted a thorough site survey and arranged a deployment which is most suitable for the special landscape of the open-pit mine. With the deployment process completed, a high-quality Wi-Fi network is available for all operators working in the mine for their convenient communication or any operational purposes.

Customer Name:

Minera San Cristóbal

Deployment Location:

Bolivia

Application:

Industrial private network: seamless connection for trucks/rigs' vehicle terminals and portable terminals

Product used:

A8n, A8-Ein, A2, C1xn, AltaiCare OP

Result:

After a thorough site survey, Altai proposed a deployment plan which can best fit the open-pit mine's landscape and the functional purpose. In addition, with Altai Super Wi-Fi technology, a high-quality Wi-Fi network is available for all operators working in the mine for their convenient communication or any operational purposes.

The Challenge

- Large area coverage
- Harsh environment
- WiFi clients moving constantly
- Lack of basic infrastructure for installation



The Solution

Twelve Altai's flagship APs, A8-Ein as well as one A8n have been installed for long range coverage of the site with an area of 13 km² and perimeter of 19 km. Altai APs are installed on the 4 towers that are on the perimeter of the mine. In this case, using Altai's APs has a great advantage comparing to standard outdoor APs, as no AP is needed to install inside the operative area due to Altai APs' ability to provide macro coverage. On the other hand, Altai's A2s are installed on drilling rigs, "loaders" and certain solar powered areas as repeaters, while C1xns are installed on mobile cranes in CPE mode. The AltaiCare OP has been used for centralized management.

Altai's solution has replaced the original WiFi solution provided by a well-known telecom brand as Altai's WiFi network has totally outperformed its competitor's. Altai was the only vendor able to meet all requirements set by the customer.

The Result

The new wireless network supported by Altai Super WiFi provides reliable assistance to the mining project in terms of daily operation and tasks management. The customer is impressed with Altai's outstanding performance in large area and harsh environment coverage, which has totally exceeded the previous solution they have been using.



About Altai

Altai Technologies is a leading supplier of carrier-grade Wi-Fi products and technologies with a distribution network reaching 100 countries. Altai Super WiFi is the leading solution for vertical industrial markets, covering over 200 terminal ports and airports globally.

The Altai Super WiFi Solution includes a complete portfolio of indoor and outdoor products for carriers, WISPs, and enterprises to support a wide range of applications such as mobile data off load, public access, WLAN access, and backhaul.

Utilizing patented smart antenna technology, as well as a cloud-based management system called AltaiCare, the Altai Super WiFi Solution is designed from the ground up to deliver Wi-Fi networks that have unprecedented performance, reliability, scalability, and manageability.

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