FiberinMotion® Case Study

Mining

FiberinMotion® Chosen for Tele-Operations in Chilean Mine

Minera Centinela Chile puts the safety of its drivers first by establishing remote and driverless mining machinery operations

About the customer:

Minera Centinela is located near to Sierra Gorda town, in the region of Antofagasta in the north of Chile. It is currently the seventh largest copper producer in the country and the fifteenth worldwide.

RADWIN Partners:

Transworld, RADWIN's official Distributor in Chile.

Minera Centinela challenges:

- Increase employee's safety while maintaining an unwavering operational flow
  - Secure the safety of excavator and bulldozer drivers in the Tailing Dam Area
  - Move to tele-operations so drivers can control the mining machinery from a safe and comfortable indoor location
- Less than 200 msec of roaming
- Long distance connectivity of up to 2-3 km (1-2 miles)
- High capacity video transmission
- Full coverage with minimal infrastructure
- Fast wireless network deployment
- Minimal visual impact and small form-factor solution
- Short implementation time: Less than 5 months

CENTINELA
ANTOFAGASTA MINERALS

"RADWIN technology surpassed strict technical wireless network requirements (Throughput, latency, roaming and distance), where other technologies previously failed.

RADWIN FiM worked the first time round as promised, the project included RADWIN Professional Services and mining experts, who ensured a successful project initiation by providing a high level of knowledge.

Best of all, we were able to deliver a quality communications solution on time, ensuring a smooth-running system that meets all our business needs."

Leonardo Serra, Corporate TICA Projects Leader

FiberinMotion® Case Study

Deployment:

5 FiberinMotion Transportation Base Stations (THBS) and 5 Transportation Mobile Units (THSU) using 5.4GHz were deployed to provide mobile connectivity to tele-operated machinery.

The existing backhaul network operates at up to 7km while the mobile network provides long distance connectivity of up to 3Km and covers an area greater than 20Km. Both networks provide consistent and reliable connectivity while overcoming the challenge of highly interfered spectrum, which created serious issues for previously deployed technologies.

Overall, project installation, implementation, and deployment which also included field tests, took less than 5 months.

Customer benefits:

Since deploying RADWIN's JET PRO and FiberinMotion solution, Centinela is benefitting from:

- Operation in license-free bands, eliminating license costs and fees
- Seamless operations regardless of interference
- Operation over long distances and in nLOS scenarios
- Robust network with a minimal failure rate
- Fast deployment with minimum infrastructure
- Carrier grade technology with SLA and QoS

FiberinMotion® Case Study

RADWIN FiberinMotion highlights

» Base stations with advanced beamforming technology
» High capacity of up to 750 Mbps
» Uplink / downlink configurable asymmetric traffic
» Extended coverage for each base station
» Seamless handover < 50msec
» Low & fixed latency and jitter
» Exceptional immunity from interferences

Leonardo Serra, also said

"The teleoperation provider stated that the wireless network is excellent, and the technology is already being used in similar projects.

We are pleased to say that we got the equipment operators out of the risk areas and today they work better in much safer and calmer conditions."

About RADWIN

RADWIN is the global provider of broadband wireless solutions that deliver blazing fast broadband with unparalleled reliability. Incorporating cutting-edge technologies, RADWIN's solutions are equipped with powerful OSS tools that support all operational aspects of the network lifecycle and enable operation in the toughest conditions including interference and nLOS.
Deployed in over 170 countries, RADWIN's solutions power applications including backhaul, access, private network connectivity and broadband on the move for rail and metro trains.

Visit: **www.radwin.com**

RADWIN