

6-Hop Solar Microwave Network Delivers 100 Mbps Fibre to Remote Mine Site

Before Starlink existed, a remote Western Australian mine site was stuck on a 2 Mbps/2 Mbps satellite link. We designed and built a six-hop solar-powered microwave network to a Tom Price business with a 100 Mbps fibre connection, connecting the mine to its head office for the first time at real broadband speeds. The big-T telco wanted \$4.6 million to run fibre; our solution was built for \$69,000 excluding the existing Tom Price connection supplied by the mining company.

KEY RESULTS

100 Mbps

fibre-speed connection to head office

\$69k

build cost vs \$4.6M telco quote

6 hops Cyclone rated

solar-powered microwave relay sites

towers, mounts and enclosures

BEFORE

- Remote mine site limited to 2 Mbps/2 Mbps satellite with high latency and poor reliability
- Major telco quoted \$4.6 million to install a dedicated fibre run
- No commercial power available at relay sites across the six-hop path
- Harsh Pilbara environment with extreme heat, dust and cyclone exposure

AFTER

- 100 Mbps - fibre-speed connection to head office
- \$69k - build cost vs \$4.6M telco quote
- 6 hops - solar-powered microwave relay sites
- Surveyed the terrain and designed a six-hop microwave path from the mine site to a Tom Price business with existing fibre

"For the first time we could run our mine systems, video calls and file transfers like a real office. The satellite days felt like a different century."

- Mine operations manager, Western Australia