

DXN Modules as a Mining Data Hub – Pilbara Minerals



Background

Pilbara Minerals (ASX: PLS), one of the leading lithium producers in Western Australia, required advanced data infrastructure to support its operations at the Pilgangoora Lithium-Tantalum Project. The growing use of automation and local compute requirements in mining has made robust, on-site data management critical to operational success. To meet this demand, Pilbara Minerals sought a 2x prefabricated, modular solution to house their IT infrastructure on-site.

Solution

DXN provided two prefabricated modular data centers, custom-designed to meet the unique demands of the Pilgangoora operations. Prefabrication of the modules was undertaken at DXN's factory in Perth, ensuring high quality control and minimising on-site assembly time. The modular data centers were designed to:

- Operate in harsh environments: Built with robust materials to withstand extreme heat and dust common in mining regions.
- Energy efficiency: Optimised to reduce operational costs while providing consistent performance.
- Scalability: Designed to support Pilbara Minerals' future expansion in automation and edge computing needs.
- Rapid deployment: Prefabrication in Perth allowed for fast on-site installation, reducing downtime and ensuring the data centers would be operational by February 2024.

Objective

The Pilgangoora operations are located in a remote and harsh environment, where traditional data center setups would face logistical challenges and higher operational costs. The requirement was for a resilient, scalable data solutions capable of handling real-time processing and automation tasks, while also being quickly deployable and cost-efficient. Energy efficiency and the ability to withstand extreme conditions were key considerations for the client.



"This project is a testament to the growth of Edge data centres in the mining market segment where automation and local compute requirements continue to grow."

– Shalini Lagrutta, CEO, DXN

Outcome

The modular data centers provided a resilient, energy-efficient solution to support the increased automation and data processing needs at Pilgangoora.

Additional Wins For DXN

DXN's experience in delivering modular data centers to the mining sector includes multiple projects in Western Australia, further solidifying its position as a key player in the mining infrastructure market.

