PH1 Port Hedland Data Centre

TECHNICAL SPECIFICATIONS

About PH1 Port Hedland

As digital transformation accelerates in the mining industry, deploying the critical digital infrastructure required to optimise innovation leveraging new technologies such as AI, 5G, IoT, and automation is a big challenge facing the sector. At NEXTDC we have recognised the need for resilient, secure, and cloud-connected data centres that can operate uninterrupted at the industry's remote operational edges such as the Pilbara in Western Australia's north.

As NEXTDC continues to expand our data centre portfolio, and build out edge data centre services, our PH1 development will be the foundation for bringing low latency cloud access to one of the harshest, most isolated environments on planet Earth.

NEXTDC's PH1 Port Hedland edge data centre is strategically located near critical pit-to-port mining operations enabling access to secure, high-performance connectivity to remote operational centres in Perth. This crucial infrastructure development will enable the industry to harness technologies that directly support core objectives such as safety, sustainability, operational continuity, cost efficiency and productivity.

Interconnecting directly with NEXTDC's national sovereign ecosystem of over 770 clouds, carriers and digital services providers, Stage 1 of PH1 Port Hedland introduces 1.5MW of IT capacity to Australia's largest export hub. It is certified to Uptime Institute Tier III standards and is backed by NEXTDC's 100% uptime guarantee.

Industry benchmark energy efficiency and sustainability is built into PH1's DNA so that customers can rest assured they are getting the best possible PUE performance in a region renowned as one of the hottest in Australia. The facility utilises behind-the-meter power generation (solar), water conservation, recycling, land-fill diversion and ethical eWaste disposal to further enhance sustainability credentials.

Open to customers

August 2023

Location

17 Loreto Circuit,
Port Hedland WA 6721

Building

Single storey building
Total site area 9671m^2

Total technical space

788m^2

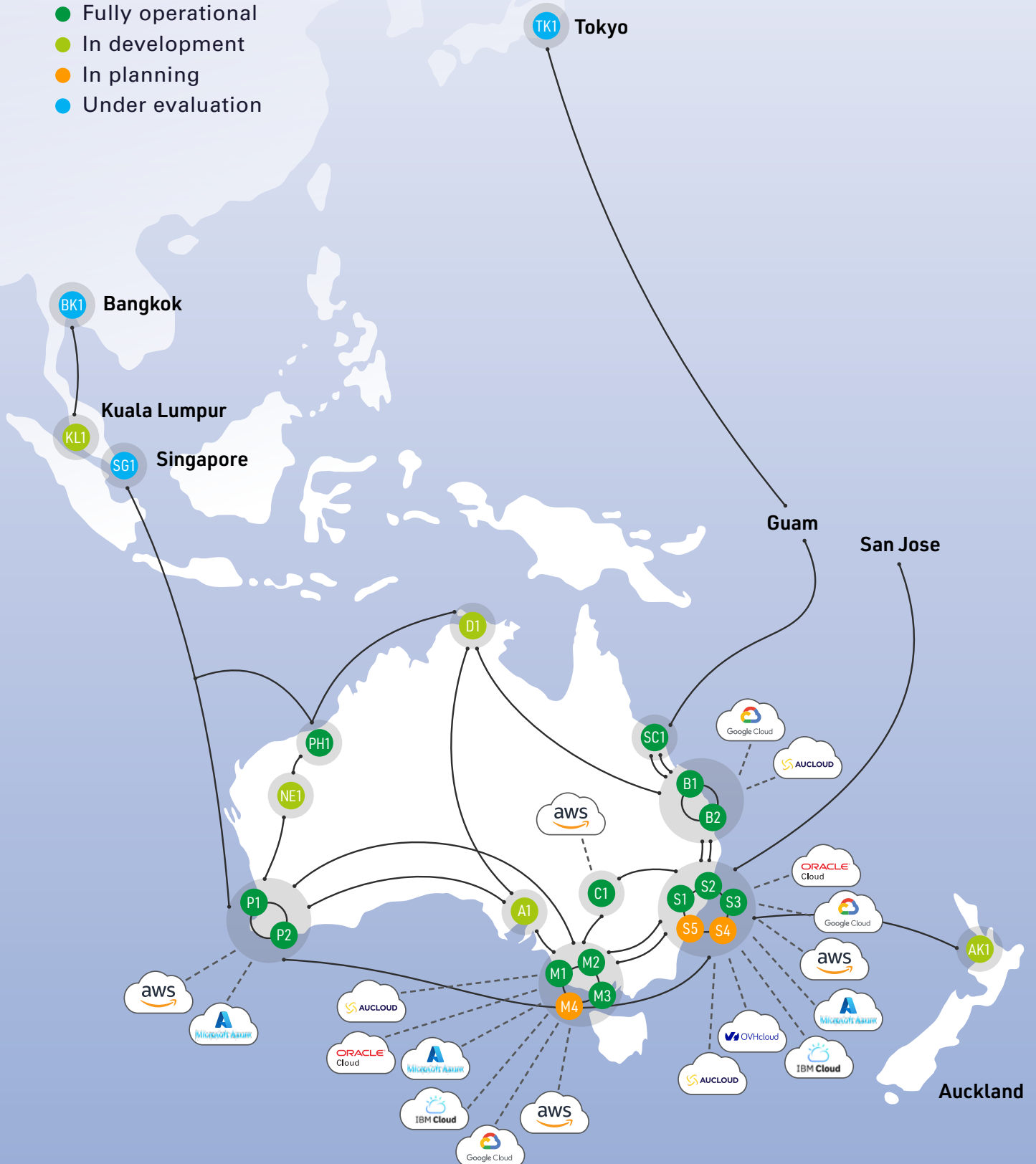**Rack capacity**

300+

IT capacity

1.5MW

Future growth

Modular construction
for rapid future growth

NEXTDC's national and regional data centre footprint

- ● Fully operational
- ● In development
- ● In planning
- ● Under evaluation

Power

- Multiple power distribution units with minimum N+N redundancy
- Full N+1 main electrical infrastructure extending to N+N at power rail level
- 2 x 400kVA MTU backup diesel generators, with space for multiple generators for growth
- Minimum 18 hours onsite fuel supply

Cooling

- Cold aisle containment
- N+1 high efficiency condenser
- N+1 in row cooling with UPS redundancy
- Leak detection systems on all critical infrastructure
- Average cold aisle temperature of 22 +/- 5oC
- Average cold aisle relative humidity of 50% +/- 30%

Fire suppression and monitoring

- VESDA fire detection
- Inert gas fire suppression
- Emergency warning systems throughout
- Mist suppression system in generator area
- Offsite monitoring by WA Fire and Emergency Services
- 24x7 365 DC infrastructure monitoring

Security

- Individual credential checks prior to authorisation
- 24/7 security monitoring
- Two factor Biometric fingerprint security for data centre access
- Anti-cloning access card encryption
- CCTV coverage for all points of entry and critical infrastructure
- Secure and audited rack key access system
- 2.4m high security fencing, anti-scalable complete with anti-dig barrier

Telecommunications

- Diverse connectivity and underground cable pathways to the building
- PH1 site hosts the Vocus Horizon terrestrial cable

Customer Services

- Remote Rack lock/unlocking
- AXON
- ONEDC
- Remote Hands
- Storage
- Onsite parking
- Guest Wi-Fi

N E X T D C

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