

# SC1 Sunshine Coast Data Centre

Technical Specifications



**N E X T D C**

where the cloud lives™



# About SC1 Sunshine Coast

No matter your location, growing business and scaling without friction requires highly interconnected and resilient infrastructure that's engineered, built and operated to the highest standards. Infrastructure that is flexible by nature and can be right-sized to support business requirements today, and into the future. Edge data centre solutions form a crucial part of the broader digital and business transformation strategy, as such Edge plays a strategic role in enabling successful business outcomes not only at the core, but at locations outside the metro region.

NEXTDC's SC1 regional data centre, located in the heart of Maroochydore delivers critical low-latency support to regional businesses, connecting them to the country's major networks and digital services providers across Australia. With a total planned capacity of 1MW, SC1 is engineered to support the highest levels of customer availability and is backed by NEXTDC's industry leading service guarantee of 100% uptime. Leveraging NEXTDC's core data centre platform, SC1 forms a new regional digital hub for the Sunshine Coast, enabling regionally positioned businesses to seamlessly integrate their technology to aaS providers and cloud platforms.

SC1 is connected to NEXTDC's extensive digital services ecosystem via the AXON interconnection services platform, enabling direct and secure access to the broader national digital services ecosystem, comprising over 750 technology partners and Australia's largest network of public cloud onramps for Microsoft, AWS, Google, IBM, Oracle and OVHcloud.

Strategically located in proximity to critical telecommunications infrastructure, SC1 hosts the Sunshine Coast International Broadband Network ("SCIBN") Cable Landing Station. The SCIBN submarine cable connects to the 7,000km Japan-Guam-Australia South ("JGA-S") submarine cable. JGA-S is a fibre optic cable consortium that includes AARNet (Australia's Academic and Research Network), Google and RTI (global sub-sea cable operator).



Open to customers

Fully operational



Location

44 Maud Street  
Maroochydore QLD 4558



Building

Two story building  
Total site area 1,220m<sup>2</sup>



Total technical space

290m<sup>2</sup>



Rack capacity

84

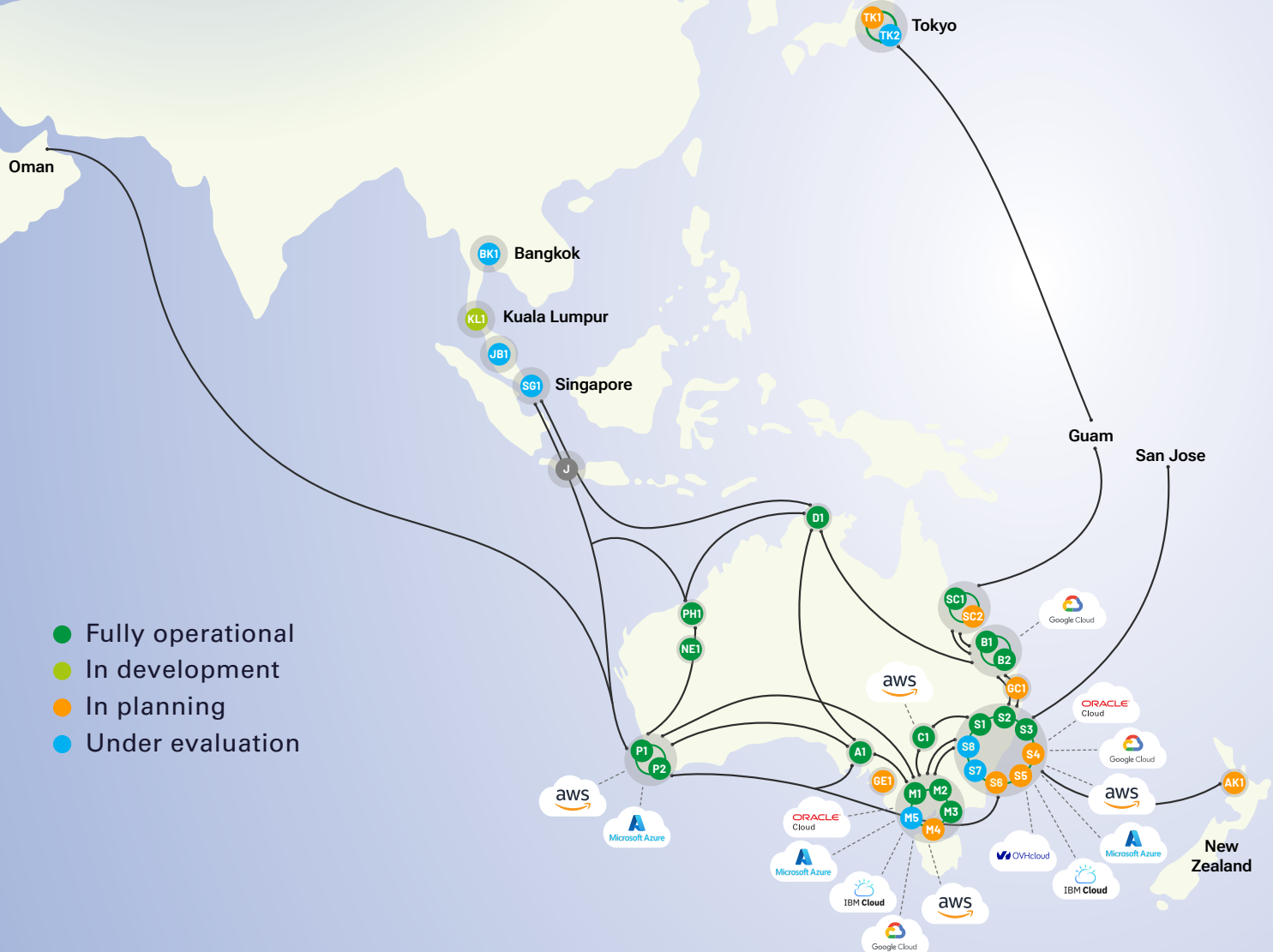


IT capacity

1MW



# NEXTDC's national and regional data centre footprint



## Power

- Available power of 22.5MVA
- Minimum server heat load is 2,000W/m<sup>2</sup>
- IT load capacity of approximately 15MW
- Minimum N+1 redundancy on power supply
- Multiple power distribution units with minimum N+N redundancy
- Harmonic distortion controlled and monitored by UPS systems
- Full N+1 main electrical infrastructure extending to N+N at power rail level
- Ultimate 16+1 Pillar 1670kVA Diesel Rotary UPS (DRUPS) units on an Isolated Parallel bus for 100% no break IT and mechanical power
- Three 7.5MVA main feeders delivered at 11kV
- Minimum 24 hours' onsite fuel supply

## Cooling

- N+1 high efficiency water-cooled chillers, cooling towers and pumps
- Dual primary pipework header and distribution system
- Secondary pipework distribution serving data hall equipment valved and looped providing dual path
- Multiple redundant water pump and compressor configuration
- Leak detection system for critical plant areas
- Server heat load approximately 2000W/m<sup>2</sup>
- N+2 Computer Room Air Conditioning (CRAC) units per data suite
- CRAC units fitted with supply temperature control and floor pressure control
- All CRAC units are located in secured plant corridors outside the data suites
- Hot and cold aisle containment systems: halls 4, 5 and 6 cold aisle; halls 1, 2 and 3 hot aisle
- Average cold aisle temperature of 22 +/-2 degrees
- Average cold aisle relative humidity of 50% +/- 15%

## Fire suppression and monitoring

- Inert gas fire suppression system
- Leak detection systems
- Emergency warning systems throughout the building
- Water mist suppression system in DRUPS enclosures.
- Distributed fire alarm controls equipment to avoid single point of failure
- Full addressable analogue fire alarm system comprising Fire Indicator Panel (FIP), mimic panels, heat detection and MASDs systems

## Security

- Individual credential checks prior to authorisation
- 24/7 onsite security personnel
- Biometric fingerprint security for data centre access
- Anti-cloning access card encryption
- Secure lifts between floors
- Intruder-resistant glass, steel mesh and solid concrete walls
- Secure loading dock for deliveries
- Extensive coverage by motion sensitive CCTV cameras
- Remote monitoring and control of rack access via ONEDC®
- Monitoring of news and weather for external security risks
- Designed with advice from ASIO T4 accredited consultants and in consideration of ASIO levels of security and the future requirements of the Protective Security Policy framework (PSPF)

## Sustainability

- Water-cooled chiller technology with variable speed compressors
- Indirect water-side free cooling
- Rain water is available for cooling towers
- Australia's largest privately owned rooftop PV solar array
- Dedicated area for potential future installation of onsite generation plant (such as tri-gen or other technologies) to significantly reduce CO<sub>2</sub> emissions
- Energy efficient lighting (fluoro or LED) meeting AS1680.2.2 standard
- External walls insulated to reduce heat transmission
- Low volatile organic compound (VOC) materials and paint
- Target PUE for full final design IT load is 1.35

## Telecommunications

- Diverse connectivity and underground cable pathways to the building
- Dedicated interconnect rooms for cable connections
- Access to choice of 50+ carrier networks

## Customer services

- Dedicated office space for long-term private use
- Sound-proof boardroom
- Chill-out room equipped with kitchen facilities and Nespresso machine, TV, lounge, massage chairs and Foxtel
- Equipment staging room
- Two four tonne lifts
- Customer carpark
- Spare parts vending machine
- Guest Wi-Fi



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