



TECHNICAL SPECIFICATIONS

C1CANBERRA

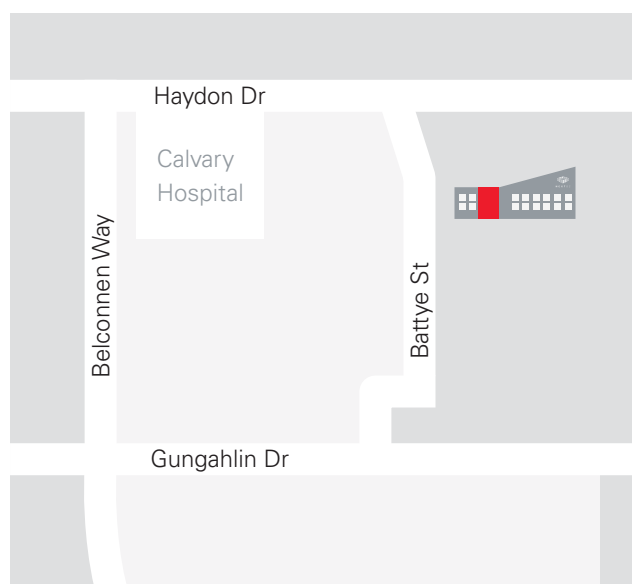
About **C1**CANBERRA

C1 is strategically located in Bruce, 6km from Canberra's CBD, with excellent access to major public and telecommunications infrastructure. Built to the highest levels of security for the Australian Government in 1994 as the primary data centre for the Australian Taxation Office, C1 has undergone extensive transformation to provide enterprise-class data centre services and to comply with UTI Tier III requirements.

C1 now offers 2,260m² of high-density technical space. As host to Canberra's only AWS Direct Connect POP, C1 offers a range of direct and on-demand connectivity to a myriad of local and global cloud platforms such as AWS, Microsoft Azure, Google Cloud, Oracle Cloud, IBM Cloud and Alibaba Cloud through AXON.

BUILDING OVERVIEW

- Two storey, approximately 6,000m² building.
- Total technical space approximately 2,260m².
- 1,000 rack capacity.
- Office and common areas approximately 1,740m².
- 600mm raised floor in data halls and service corridors.
- Main data hall floor is reinforced concrete.



POWER

- IT load target capacity of approximately 4.4MW.
- Minimum N+1 redundancy on power supply.
- Multiple power distribution units providing N+N final circuit distribution to IT racks.
- Harmonic distortion controlled and monitored by UPS systems.
- N+1 RUPS units.
- Full N+1 main electrical infrastructure extending to N+N at power rail level.
- Minimum 24 hours' onsite fuel supply.
- Two independent on-site substations.

COOLING

- N+1 water-cooled chillers, cooling towers and pumps.
- Secondary valved pipework distribution, serving data hall equipment.
- Water buffer tank.
- Leak detection system.
- Server heat load approximately 2000W/m².
- N+2 Computer Room Air Conditioning (CRAC) units per data hall.
- CRAC units supply temperature control and floor pressure control.
- 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.
- Power and cooling continue to be maintained even during a fire suppression event.
- Leak detection systems.
- Emergency warning systems throughout the building.
- Distributed fire alarm controls equipment to avoid single point of failure.
- Fully 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.

- 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.
- C1's physical security includes ramraid barrier and blast-resistant doors at loading dock.
- The C1 facility was originally purpose built as a Data Centre for the Australian Government to meet the PSPF and SCEC construction requirements. The defined facility perimeter has all penetrations treated with security grilles and all entry points are access controlled for entry and exit. We have adopted a multifactor authentication process to include a biometric scanner in addition to a proximity access card.
- Designed with advice from ASD Endorsed IRAP Assessors and SCEC Endorsed Security Zone Consultants, in consideration of Federal Government Protective Security Policy framework (PSPF) requirements, the Data Halls have been built with tamper-resistant and tamper-evident barriers and treated to be able to meet the construction standards as specified in ASIO's Technical Note 1/15 – Physical Security of Zones.

SUSTAINABILITY

- Water cooled chiller technology with variable speed compressors.
- Energy efficient lighting (fluoro or LED) meeting AS1680.2.2 standard.
- Low volatile organic compound (VOC) materials and paint.
- Target PUE is 1.4 at peak load.

TELECOMMUNICATIONS

- Diverse connectivity and underground cable pathways to the building.
- Ready access to ICON Fibre.
- Dedicated interconnect rooms for cable connections.
- Access to all major carrier networks.

CUSTOMER SERVICES

- Dedicated office space for long-term private use.
- Quiet zone customer meeting room.
- Sound-proof boardroom.
- Chill-out room equipped with tea and coffee station, refreshments and hardware accessories from our vending machines.
- Customer carpark.
- Spare parts vending machine.
- Guest Wi-Fi.

CERTIFICATIONS

