

# C1 Canberra Data Centre

Technical Specifications



**N E X T D C**

where the cloud lives™



# The innovation epicentre for cloud and digital transformation

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 2,260m<sup>2</sup> 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 Microsoft Azure, Amazon Web Services (AWS), Google Cloud, IBM Cloud, Oracle Cloud and OVHcloud.



**A1 Adelaide**  
125 Frome Street, Adelaide SA 5000



**B1 Brisbane**  
20 Wharf Street, Brisbane City QLD 4000



**B2 Brisbane**  
454 St Pauls Terrace, Fortitude Valley QLD 4006



**C1 Canberra**  
19 Batty Street, Bruce ACT 2617



**D1 Darwin**  
2 Harvey Street, Darwin NT 0800



**M1 Melbourne**  
826 Lorimer Street, Port Melbourne VIC 3207



**M2 Melbourne**  
75 Sharps Road, Tullamarine VIC 3043



**M3 Melbourne**  
25 Indwe Street, West Footscray VIC 3012



**NE1 Newman**  
96 Woodstock Street, Newman WA 6753



**P1 Perth**  
4 Millrose Drive, Malaga WA 6090



**P2 Perth**  
11 Newcastle Street, Perth WA 6000



**PH1 Port Hedland**  
17 Loreto Circuit, Port Hedland WA 6721



**S1 Sydney**  
4 Eden Park Drive, Macquarie Park NSW 2113



**S2 Sydney**  
6-8 Giffnock Avenue, Macquarie Park NSW 2113



**S3 Sydney**  
2 Broadcast Way, Artamon NSW 2064



**S6 Sydney**  
3 Broadcast Way, Artamon NSW 2064



**SC1 Sunshine Coast**  
44 Maud Street, Maroochydore QLD 4558

# Globally recognised and certified data centres

	<b>Location</b>	19 Battye Street Bruce ACT 2617
	<b>Building</b>	Two storey Approximately 6,000m <sup>2</sup>
	<b>IT load</b>	4.4MW
	<b>Technical space</b>	2,260m <sup>2</sup>
	<b>Rack capacity</b>	1,000
	<b>Features</b>	Office and common areas approximately 1,740m <sup>2</sup> 600mm raised floor in data halls and service corridors Main data hall floor is reinforced concrete



**ISO 27001:2013**  
Information Security Management System (ISMS) certification.



**ISO 14001:2015**  
Environmental Management System certification.



**ISO 9001:2015**  
Quality Management System certification.



**ISO 45001:2018**  
Occupational health and safety management systems.



**Uptime Institute Tier III**

Concurrently maintainable data centre infrastructure.



**SOC 1/SOC 2**

SOC is a suite of reports from the AICPA that CPA firms can issue in connection with system-level controls at a service organisation.



**PCI-DSS**

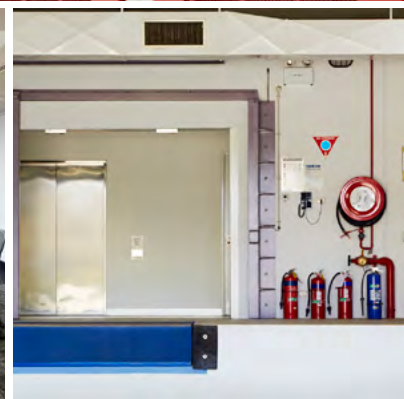
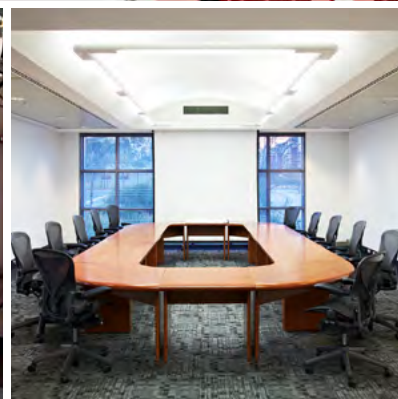
The Payment Card Industry Data Security Standard is an information security standard for organisations that handle branded credit cards from the major card schemes.



**Australian Government**  
Digital Transformation Agency

**Digital Transformation Agency (DTA)**

Commonwealth Government's Hosting Certification Framework.





# Why choose NEXTDC



## Flexible infrastructure

Our digital infrastructure platform supports the long-term requirements of organisations, delivering solutions that meet your needs now, with the ability to scale easily to support your future needs.



## Interconnected advantage

Select from flexible connectivity services ranging from Structured Cabling and Cross Connects to cloud connections, we will help build a solution that best suits your business or project requirements.



## Cloud enabled

When you house your IT infrastructure in NEXTDC's data centres, your critical IT assets are interconnected directly, and natively to AWS, Microsoft, Google, Oracle, IBM and AUCloud.



## Operational excellence

Our team of highly specialised operations experts are the leaders in the Australian industry. As a customer-first organisation, we pride ourselves on ensuring we deliver the highest levels of customer service and support in the country. Our expertise and passionate team are the reason we are recognised as the leading data centre services provider in the country.



## Scalable networks

Establish low-latency network connections with access over 70 global carriers, networks of your choice, including global carriers, subsea cables, metro networks, SDNs and more.



## Elite security

Every NEXTDC facility is monitored and secured via our elite security operations centres 24/7/365. Governed by the highest security standards globally, our facilities are purpose built to ensure a frictionless experience, governed by a comprehensive framework comprising five layers of security.

# Interconnect to the digital platforms and services that fuel your growth

With over 750 cloud, network and IT service providers available within our data centres and continued facility expansions, our customers' growth and technology needs are supported now and into the future. NEXTDC offers organisations greater choice and guaranteed reliability when interconnecting their business to the clouds, networks and platforms that drive their business, and quality assurance when it comes to building high-performance, highly reliable and scalable Hybrid IT architectures.

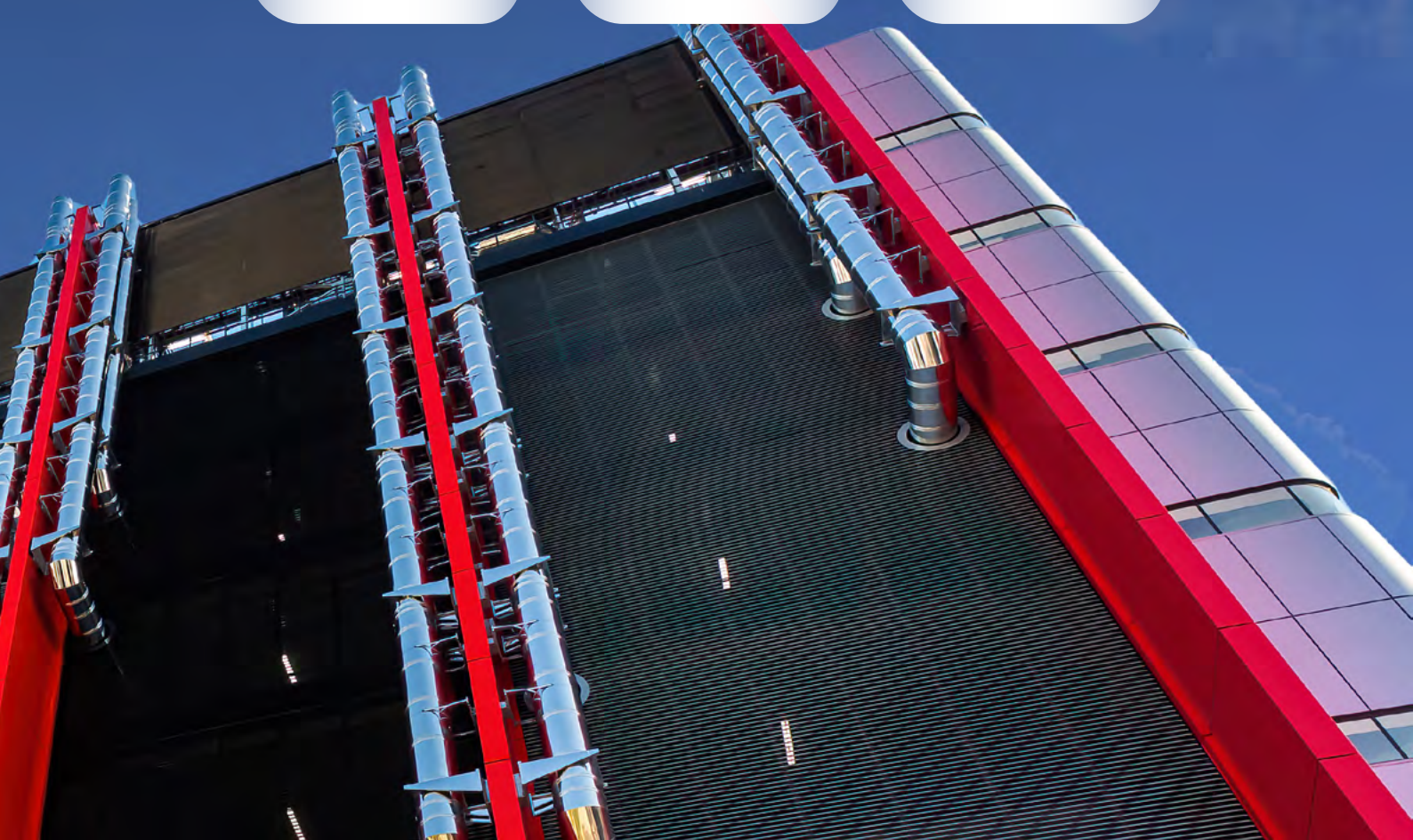


# The fastest most direct access to your public cloud on-ramp

Partnering with NEXTDC means positioning your critical infrastructure in the epicentre of your digital services supply chain. Our digital infrastructure platform enables direct, secure and native access to your clouds, with the advantage of proximity. The power of proximity and speed delivers you the agility, performance, and customer experience advantages needed to increase your competitive edge.



## Locally available hosted cloud access points



## Technical specifications

### C1 Canberra

 <b>Power</b>	<ul style="list-style-type: none"> <li>IT load target capacity of approximately 4.4MW.</li> <li>Minimum N+1 redundancy on power supply.</li> <li>Multiple power distribution units providing N+N final circuit distribution to IT racks.</li> <li>Harmonic distortion controlled and monitored by UPS systems.</li> <li>N+1 RUPS units.</li> <li>Full N+1 main electrical infrastructure extending to N+N at power rail level.</li> <li>Minimum 24 hours' onsite fuel supply.</li> <li>Two independent on-site substations.</li> </ul>
 <b>Cooling</b>	<ul style="list-style-type: none"> <li>N+1 water-cooled chillers, cooling towers and pumps.</li> <li>Secondary valved pipework distribution, serving data hall equipment.</li> <li>Water buffer tank.</li> <li>Leak detection system.</li> <li>Server heat load approximately 2000W/m2.</li> <li>N+2 Computer Room Air Conditioning (CRAC) units per data hall.</li> <li>CRAC units supply temperature control and floor pressure control.</li> <li>Average cold aisle temperature of 22 +/-2 degrees.</li> <li>Average cold aisle relative humidity of 50% +/- 15%.</li> </ul>
 <b>Fire suppression and monitoring</b>	<ul style="list-style-type: none"> <li>Inert gas fire suppression system.</li> <li>Power and cooling continue to be maintained even during a fire suppression event.</li> <li>Leak detection systems.</li> <li>Emergency warning systems throughout the building.</li> <li>Distributed fire alarm controls equipment to avoid single point of failure.</li> <li>Fully addressable analogue fire alarm system comprising Fire Indicator Panel (FIP), mimic panels, heat detection and MASDs systems.</li> </ul>
 <b>Security</b>	<ul style="list-style-type: none"> <li>Individual credential checks prior to authorisation.</li> <li>24/7 onsite security personnel.</li> <li>Biometric fingerprint security for data centre access.</li> <li>Anti-cloning access card encryption.</li> <li>Intruder-resistant glass, steel mesh and solid concrete walls.</li> <li>Secure loading dock for deliveries.</li> <li>Extensive coverage by motion sensitive CCTV cameras.</li> <li>Remote monitoring and control of rack access via ONEDC®.</li> <li>Monitoring of news and weather for external security risks.</li> <li>C1's physical security includes ramraid barrier and blast-resistant doors at loading dock.</li> <li>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.</li> <li>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.</li> </ul>
 <b>Sustainability</b>	<ul style="list-style-type: none"> <li>Water cooled chiller technology with variable speed compressors.</li> <li>Energy efficient lighting (fluoro or LED) meeting AS1680.2.2 standard.</li> <li>Low volatile organic compound (VOC) materials and paint.</li> <li>Target PUE is 1.4 at peak load.</li> </ul>
 <b>Telecommunications</b>	<ul style="list-style-type: none"> <li>Diverse connectivity and underground cable pathways to the building.</li> <li>Ready access to ICON Fibre.</li> <li>Dedicated interconnect rooms for cable connections.</li> <li>Access to all major carrier networks.</li> </ul>
 <b>Customer services</b>	<ul style="list-style-type: none"> <li>Dedicated office space for long-term private use.</li> <li>Quiet zone customer meeting room.</li> <li>Sound-proof boardroom.</li> <li>Chill-out room equipped with tea and coffee station,</li> <li>refreshments and hardware accessories from our vending machines.</li> <li>Customer carpark.</li> <li>Spare parts vending machine.</li> <li>Guest Wi-Fi.</li> </ul>



NEXTDC's infrastructure platform delivers the security, sovereignty and interconnectivity capability your businesses requires. Our premium solutions empower the underlying capability you need to grow and scale without friction or limitation and accelerate the momentum of data traction.

Find out how NEXTDC can help you enhance the reliability and efficiency of your digital infrastructure, so you stay focussed on driving growth and creating value for your customers.



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