

# Sydney Data Centres

Technical Specifications



**N E X T D C**

where the cloud lives™





# Sydney's innovation epicentre for cloud and digital transformation

NEXTDC's Sydney data centre network is centrally located yet geodiverse and seamlessly interconnected to NSW's largest community of cloud platforms, digital services providers and enterprises.

Connect to the critical communities that underpin the acceleration of your digital transformation objectives and amplify business value, including content and digital media providers, global networks and cloud services.

Housing the largest network of locally available cloud access points, connect locally and natively to Microsoft Azure, Amazon Web Services (AWS), Google Cloud, IBM Cloud, Oracle Cloud and OVHcloud. Recognise immediate gains from low latency and secure connections and the advantage of proximity so you optimise speed to value for your cloud and transformation objectives.




**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 Battye 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

# Scale your IT securely, with speed and precision at Sydney's premier technology hub

NEXTDC's digital infrastructure platform enables secure, seamless and frictionless access to the cloud platforms, carriers and digital services providers that your business needs to succeed.

There is nothing more critical than your brand, reputation, and your ability to faultlessly serve your customers. We understand the always-on nature of your businesses, and the critical need for immediacy 100% of the time. As Sydney's premier data centre provider, we're the best in the business when it comes to protecting yours.

Confidently managing risk and improving the resilience of your business is critical to compete and thrive in the digital era. Supporting the dynamic and rapidly evolving requirements of digital businesses requires the backing of completely fault tolerant digital infrastructure. Our Sydney data centres set the benchmark for premium colocation facilities in the state. As the only Tier IV certified and completely fault tolerant infrastructure platform in NSW, your business benefits from the highest levels of resilience, reliability and performance, all backed by NEXTDC's industry leading 100% uptime guarantee.



## Proximity and performance

NEXTDC's Sydney data centres offer superior interconnectivity capability, enabling you to bridge the distance and latency between your hybrid IT environment to your cloud platforms, locations and digital services partners.



## Geo-redundancy

Enables you to run active sites across our national footprint. Should disaster strike, simply failover to your specified location via secure, high-performance dynamic connections.











## Availability









NEXTDC delivers the highest levels of availability and reliability of the critical infrastructure your business needs to succeed. Our national digital infrastructure footprint is backed by an industry leading service level guarantee of 100% uptime.



## Data centre specifications

	S1	S2	S3	S6
 <b>Location</b>	4 Eden Park Drive Macquarie Park NSW 2113	6-8 Giffnock Avenue Macquarie Park NSW 2113	2 Broadcast Way Artamon NSW 2064	3 Broadcast Way Artamon NSW 2064
 <b>Target IT capacity</b>	16MW	30MW	80MW	13.5MW
 <b>Technical space</b>	5,800m <sup>2</sup>	8,700m <sup>2</sup>	20,000m <sup>2</sup>	4,000m <sup>2</sup>
 <b>Target PUE</b>	1.3 <sup>1</sup>	~1.29 <sup>2</sup> /1.15 <sup>3</sup>	~1.15 <sup>1</sup> /1.29 <sup>2</sup>	~1.32
 <b>Data halls</b>	7	8	16	-
 <b>Rack capacity</b>	2,800	4,543	10,800	-
 <b>Interconnect rooms</b>	4	4	4	-
 <b>Mission critical operations space</b>	-	-	1,511m <sup>2</sup>	-

## Facility features

			
<b>On-site parking</b>	<b>Undercover loading dock</b>	<b>Wifi</b>	<b>Customer breakout area</b>
			
<b>Office space</b>	<b>Bookable meeting rooms</b>	<b>Spare parts</b>	<b>Crash carts</b>

1. Value refers to best instantaneous power consumption ratio within a calendar year, dependent on load and optimal environmental conditions.

2. Value relates to total energy consumption ratio during a full calendar year, dependent on load.

3. Value refers to best instantaneous power consumption ratio within a calendar year, dependent on load and optimal environmental conditions.



# Globally recognised and certified data centres

In order for organisations to run a business that is 'Always On' and available to service consumer demand, ensuring you have the most reliable infrastructure supporting your business is critical to ensuring future growth and continued expansion.

NEXTDC's focus and continued investment into building the most reliable infrastructure platform in the country is demonstrated in our Uptime Institute certifications for operational sustainability (Gold Operations) and completely fault tolerant data centre design and construction (Tier IV).

A globally recognised endorsement of our facilities' ability to withstand individual equipment failures or distribution path interruptions and maintain IT operations 24/7.



## Tier III Concurrently maintainable data centre infrastructure



A Tier III certified data centre means there is no requirement for the complete shutdown of operational equipment during maintenance and repairs. A redundant delivery path for power and cooling is added to the redundant critical components of Tier II so that every component that is needed to support the operational environment can be shut down and maintained without impacting the overall operation of the facility.



## Tier IV Completely fault tolerant data centre infrastructure

Uptime Tier IV for constructed facility is the pinnacle of data centre certifications worldwide. Tier IV infrastructure is a building block on top of the requirements for Tier III, adding in complete fault tolerance to the infrastructure deployed onsite. Completely fault tolerant infrastructure means that any individual equipment failures or distribution path interruptions that occur, will have no impact to the overall operations of the facility.



### 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.



### 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.



### FTSE4Good

### FTSE4Good

Certified ethical company.



### Australian Government Digital Transformation Agency

### Digital Transformation Agency (DTA)

Commonwealth Government's Hosting Certification Framework.



### TRUE certification

TRUE (Total Resource Use and Efficiency) is a zero waste certification program focused on waste reduction and recycling. NEXTDC S1 Sydney achieved Certified level TRUE Certification. Achieved in August 2023.

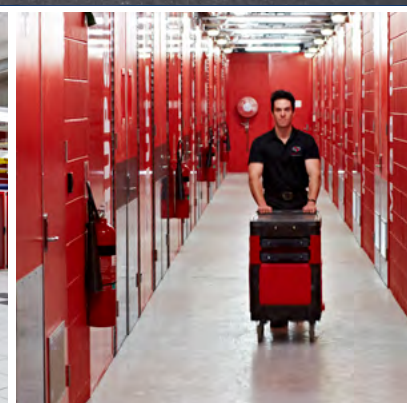


# S1 Sydney

Situated in the Macquarie Park technology park approximately 15km from Sydney's CBD, S1 Sydney is a 16MW, hyperscale colocation facility that showcases the latest in data centre technology, delivering industry-leading reliability, backed by a 100% uptime guaranteed.

Uptime Tier III certified, S1 delivers a N+1 redundancy on all critical systems, delivering extremely high levels of service availability.

S1 operates at the highest possible operational levels to ensure efficient and reliable performance 24/7 and is the only data centre in NSW to achieve a NABERS 5-Star rating for exceptional energy efficiency.

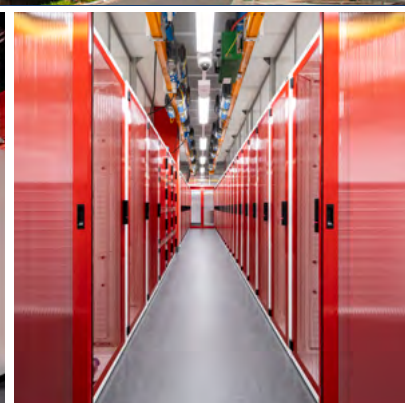




# S2 Sydney

S2 Sydney is an Uptime Tier IV hyperscale data centre. Supporting 100% complete fault tolerance, S2 delivers organisations the advantage of 100% uptime, ensuring they never compromise on the always on capability of their business operations.

Built and run to global operational standards and operational excellence, S2 leads the way in terms of sustainability stewardship. With a target PUE of 1.29, well below the industry standard (1.7), S2 champions the highest levels of energy efficiency. Showcasing the industry's highest security protocols, S2 is governed by 24/7 onsite elite security monitoring, and is supported by the industry's most highly specialised technical experts.





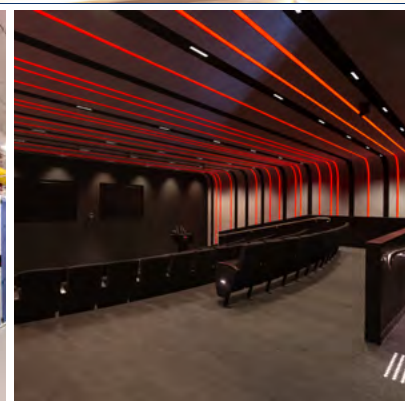
# S3 Sydney

Located in Artarmon, less than 10km from the Sydney CBD, S3 Sydney supports local NSW businesses with 80MW of critical power and 20,000m<sup>2</sup> of IT space. S3 is Uptime Tier IV certified for Design, Constructed Facility and now forms part of Sydney's technology hub.

S3 delivers direct and local access to the leading public cloud platforms as well as Australia's largest and network-dense ecosystem of ICT services specialists.

Remote Operating Centres continue to gather momentum, viewed as a way of streamlining and maintaining highly reliable business critical operations, improving productivity, reducing costs and ensuring the safety of people.

To support the growing need for organisations to not only secure their IT operations, but maintain highly reliable mission critical operations teams and functions, S3 will offer more than 1500m<sup>2</sup> of fully customisable operational space, backed by NEXTDC's 100% uptime guarantee for power to the suites.





# S6 Sydney

Located in Artarmon, adjacent to the renowned NEXTDC S3 facility, S6 Sydney is Australia's first data centre designed exclusively for AI Factories and sovereign AI. Now operational, S6 offers customised infrastructure to support a diverse array of AI platforms and workloads. Customers are already deploying high-performance AI and HPC environments, leveraging world-class digital infrastructure to scale AI workloads.

Strategically positioned in the heart of Sydney, S6 provides ultra-low latency access to global cloud providers, network, and enterprise ecosystems. It delivers up to 130kW per rack and features advanced liquid cooling systems, including direct-to-chip and rear-door heat exchange, optimising energy efficiency and reducing operational costs.

S6 also boasts ground-breaking sustainability innovations, such as an industry-leading heat-to-water exchange system. NEXTDC is leveraging a digital twin of S6 to test and refine AI-specific infrastructure solutions, ensuring customers benefit from cutting-edge AI performance and sustainability.











## Why choose NEXTDC



### Flexible infrastructure

With over 38,000m<sup>2</sup> of technical space upon full fit-out, NEXTDC's Sydney data centres provide the capability needed to support high-density hybrid IT environments. 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 OVHcloud.





## 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

	S1 Sydney	S2 Sydney
 <b>Cooling</b>	<ul style="list-style-type: none"> <li>▪ Cold aisle containment hot return space</li> <li>▪ N+1 high efficiency water cooled chillers</li> <li>▪ Secure CRAC unit corridor with dual supply to every unit</li> <li>▪ Dual primary supply pipe work for redundancy</li> <li>▪ N+2 CRAC units per data hall</li> <li>▪ N+1 redundancy on cooling systems</li> </ul>	<ul style="list-style-type: none"> <li>▪ Hot aisle containment, ceiling plenum hot return space</li> <li>▪ Stulz in-direct, free cooling CRAC paired with modular cooling tower infrastructure for continued growth</li> <li>▪ N+1 independent cooling systems, providing high levels of reliability and industry leading PUE of 1.29 (yearly average) or 1.15 (yearly lowest)</li> <li>▪ 24 hours of water stored on-site (minimum)</li> </ul>
 <b>Electrical</b>	<ul style="list-style-type: none"> <li>▪ IT load capacity of 16MW</li> <li>▪ Minimum of N+N power supply to IT racks</li> <li>▪ N+1 redundancy of supply power</li> <li>▪ 24 hours of on-site fuel supply</li> <li>▪ 1670kVA Diesel Rotary UPS (DRUPS) units feeding a Isolated Parallel bus for 100% uptime for all critical equipment</li> </ul>	<ul style="list-style-type: none"> <li>▪ Isolated Parallel Bus</li> <li>▪ 1.5MW Piller rotary UPS supported by MTU (Rolls Royce) engines, supporting the entire site load</li> <li>▪ 24 hours of fuel stored on-site (minimum), per engine</li> <li>▪ 100% UPS backup of entire site including mechanical for continuous cooling</li> <li>▪ Wagner aspirating smoke detection</li> </ul>
 <b>Fire</b>	<ul style="list-style-type: none"> <li>▪ VESDA fire detection</li> <li>▪ Leak Detection systems</li> <li>▪ High pressure water misting system supply to DRUPS units</li> <li>▪ Inert gas fire suppression for all data halls</li> </ul>	<ul style="list-style-type: none"> <li>▪ Fire detection</li> <li>▪ Inert gas fire suppression with low pressure release, onsite supply primary and reserve</li> </ul>
 <b>Security</b>	<ul style="list-style-type: none"> <li>▪ Individual credential checks prior to authorisation</li> <li>▪ 24/7 onsite security operations</li> <li>▪ Two factor Biometric fingerprint security for data centre access</li> <li>▪ Anti-cloning access card encryption</li> <li>▪ Secure lifts between floors</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>▪ 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)</li> </ul>	
 <b>Loading dock</b>	<ul style="list-style-type: none"> <li>▪ Secure, undercover loading dock facilities</li> <li>▪ Supporting large scale delivery of IT equipment</li> <li>▪ Unpacking space, with trash removal</li> <li>▪ Staging rooms, pre-test before move to data hall</li> <li>▪ Customer storage facilities available</li> <li>▪ Purpose built paths from delivery to data hall for rapid install and activation</li> </ul>	
 <b>Front of house</b>	<ul style="list-style-type: none"> <li>▪ Support for escorted access and tours</li> <li>▪ Assistance with car parking and meeting rooms</li> <li>▪ Small package receipt and dispatch</li> <li>▪ 24/7 365 support on-site (if required)</li> </ul>	
 <b>Customer services</b>	<ul style="list-style-type: none"> <li>▪ Bookable meeting rooms and AV equipment</li> <li>▪ Dedicated office space for long-term private use</li> <li>▪ Chill-out and break-out suites equipped with kitchen facilities, coffee and refreshments, TV, lounge, massage chairs and Foxtel</li> <li>▪ Equipment staging room</li> <li>▪ 2 x 4 tonne lifts</li> <li>▪ Customer car parking</li> <li>▪ Spare parts vending machine</li> <li>▪ Crash carts</li> <li>▪ Guest Wi-Fi</li> </ul>	<ul style="list-style-type: none"> <li>▪ Bookable meeting rooms and AV equipment</li> <li>▪ Dedicated office space for long-term private use</li> <li>▪ Chill-out and break-out suites equipped with kitchen facilities, coffee and refreshments, TV, lounge, massage chairs and Foxtel</li> <li>▪ Equipment staging room</li> <li>▪ 2 x 3.5 tonne lifts</li> <li>▪ Customer car parking</li> <li>▪ Spare parts vending machine</li> <li>▪ Crash carts</li> <li>▪ Guest Wi-Fi</li> </ul>
 <b>Carrier and vendor neutral</b>	<ul style="list-style-type: none"> <li>▪ Multiple street fibre connection pits and dual diverse Interconnect rooms</li> <li>▪ Open access for all fibre operators, Carriers, ISPs, MSPs</li> </ul>	
 <b>Interconnectivity solutions</b>	<ul style="list-style-type: none"> <li>▪ Gateway to NEXTDC's entire national ecosystem of public and private cloud providers, carrier networks and MSP services</li> <li>▪ Managed and unmanaged Data Centre Interconnects between S2 and S1 (1Gbps, 10Gbps and customer managed)</li> <li>▪ Dynamic scalable on-demand connections to Microsoft Azure, Amazon Web Services (AWS), Google Cloud, IBM Cloud, Oracle Cloud and OVHcloud</li> <li>▪ High performance, lowest possible latency secure connections</li> <li>▪ Dedicated, cost effective and low latency point-to-point Cross Connects</li> </ul>	



## S3 Sydney

 <b>Cooling</b>	<ul style="list-style-type: none"> <li>Hot aisle containment, ceiling plenum hot return space</li> <li>Vertiv in-direct, free cooling CRAC paired with modular cooling tower infrastructure for continued growth</li> <li>N+1 independent cooling systems, providing high levels of reliability and industry leading PUE of 1.2 (yearly average target) or 1.15 (yearly lowest)</li> <li>24 hours of water stored on-site (minimum)</li> </ul>
 <b>Electrical</b>	<ul style="list-style-type: none"> <li>2.7MW Piller rotary UPS supported by MTU (Rolls Royce) engines, supporting the entire site load</li> <li>24 hours of fuel stored on-site (minimum)</li> <li>100% UPS backup of entire site including mechanical for continuous cooling</li> <li>Isolated Parallel Bus</li> </ul>
 <b>Fire</b>	<ul style="list-style-type: none"> <li>Wagner aspirating smoke detection</li> <li>Inert gas fire suppression with low pressure release, onsite supply primary and reserve</li> </ul>
 <b>Security</b>	<ul style="list-style-type: none"> <li>ASIO Physical security ZONE 3 compliant</li> <li>Designed and built to meet minimum requirements for a Protective Security Policy Framework (PSPF)</li> <li>Physical security concept provides the necessary measures to DETER-DETECT-DELAY-RESPOND to any security event at any of the zones</li> <li>Ballistic rated Security Office</li> <li>24/7 onsite elite security operations</li> <li>Extensive coverage by motion sensitive, high definition CCTV cameras</li> <li>Two factor Biometric fingerprint security for data centre access</li> <li>Individual credential checks prior to authorisation</li> <li>Anti-cloning access card encryption</li> <li>Secure lifts between floors</li> <li>Intruder-resistant glass, steel mesh and solid concrete walls</li> <li>Secure, undercover loading dock for deliveries</li> <li>Remote monitoring and rack access control via ONEDC®</li> <li>Monitoring of news and weather for external security risks</li> </ul>
 <b>Loading dock</b>	<ul style="list-style-type: none"> <li>Secure, undercover loading dock facilities</li> <li>Supporting large scale delivery of IT equipment</li> <li>Unpacking space, with trash removal</li> <li>Staging rooms, pre-test before move to data hall</li> <li>Customer storage facilities available purpose-built paths from delivery to data hall for rapid install and activation</li> </ul>
 <b>Front of house</b>	<ul style="list-style-type: none"> <li>Support for escorted access and tours</li> <li>Assistance with car parking and meeting rooms</li> <li>Small package receipt and dispatch</li> <li>24/7 365 support on-site (if required)</li> </ul>
 <b>Customer services</b>	<ul style="list-style-type: none"> <li>Bookable meeting rooms and AV equipment</li> <li>Dedicated office space for long-term private use (mission critical office space)</li> <li>Auditorium</li> <li>Chill-out and break-out suites equipped with kitchen facilities, coffee and refreshments, TV, lounge, massage chairs and Foxtel</li> <li>Equipment staging room</li> <li>2 x 3.5 tonne lifts</li> <li>1 x 15 tonne goods hoist</li> <li>Customer car parking</li> <li>Spare parts vending machine</li> <li>Crash carts</li> <li>Guest Wi-Fi</li> </ul>
 <b>Carrier and vendor neutral</b>	<ul style="list-style-type: none"> <li>Multiple street fibre connection pits and dual diverse Interconnect rooms</li> <li>Open access for all fibre operators, Carriers, ISPs, MSPs</li> </ul>
 <b>Interconnectivity solutions</b>	<ul style="list-style-type: none"> <li>High performance, lowest latency, secure connections</li> <li>Gateway to NEXTDC's entire national ecosystem of public and private cloud providers, carrier networks and MSP services</li> <li>Managed and unmanaged Data Centre Interconnects between S3, S2 and S1 (1Gbps, 10Gbps and customer managed)</li> <li>Dynamic, private, and scalable connections to Microsoft Azure, Amazon Web Services (AWS), Google Cloud, IBM Cloud, Oracle Cloud and OVHcloud</li> <li>Dedicated, cost effective and low latency point-to-point Cross Connects</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.



**N E X T D C**  
where the cloud lives™



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