Melbourne Data Centres

Technical Specifications

NEXTDC

where the cloud lives™

Melbourne's innovation epicentre for cloud and digital transformation

NEXTDC's Melbourne data centre network is centrally located yet geodiverse and seamlessly interconnected to Victoria'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 Victoria's 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 Melbourne's most advanced 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 Melbourne'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 Melbourne 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 Victoria, 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 Melbourne 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.
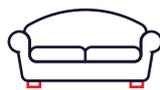
Availability

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

	M1	M2	M3
Location	826 Lorimer Street Port Melbourne VIC 3207	75 Sharps Road Tullamarine VIC 3043	25 Indwe Street West Footscray VIC 3012
Target IT capacity	16MW	150MW	320MW
Technical space	6,000m²	25,000m²	41,000m²
Target PUE	1.33**	~1.28** / 1.10***	~1.25** / 1.10***
Data halls	8	20	41
Rack capacity	3,000	8,000	23,000
Interconnect rooms	2	4	4
Mission critical operations space	-	3,104m²	-

*Approximate targets, dependent on client actual kW/rack/m2 density and SLA supply air temperatures.

Facility features

On-site parking

Undercover loading dock

Wifi

Customer breakout area

Mission critical office space

Bookable meeting rooms

Spare parts

Crash carts

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

Certified ethical company.

Digital Transformation Agency (DTA)

Commonwealth Government's Hosting Certification Framework.

NABERS

5-Star rated data centre facility for energy efficiency.

M1 Melbourne

Conveniently located in Port Melbourne, M1 Melbourne is a 16MW hyperscale colocation facility that is certified to UI Tier III standard. It delivers N+1 redundancy and is covered by NEXTDC's 100% uptime guarantee.

M1 is a NABERS 5-Star rated data centre facility for energy efficiency, and the only data centre in Victoria to achieve a 5-star rating that is independently certified by the Australian Government. Delivering industry leading reliability and redundancy, every customer environment is backed with a 100% uptime guarantee.
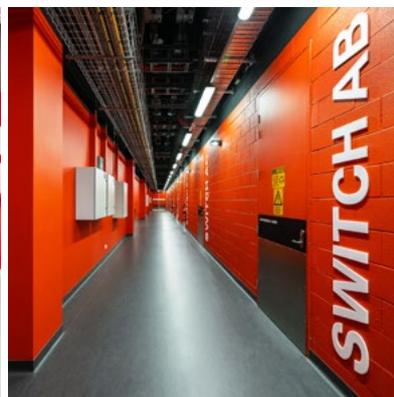
M2 Melbourne

M2 Melbourne is a 150MW hyperscale data centre. As Victoria's only Tier IV certified data centre, M2 delivers organisations unprecedented levels of resilience and reliability 24/7, and the assurance of complete fault tolerance which is underpinned by NEXTDC's industry leading 100% uptime SLA.

As Australia's new rapidly emerging cloud region, M2 supports the power and direct interconnection capability that digital businesses need to succeed. M2 is engineered to support the highest-density power and compute requirements in region, supporting up to a 10kW rack average.

M2 champions the highest levels of operational excellence that deliver more sustainable outcomes and a superior level of energy efficiency. With a target PUE of 1.28, M2 embraces a level of power efficiency that surpasses industry standards, driving a significantly reduced level of power usage and a more optimal use of power.
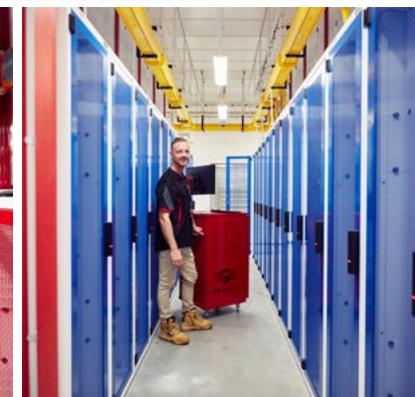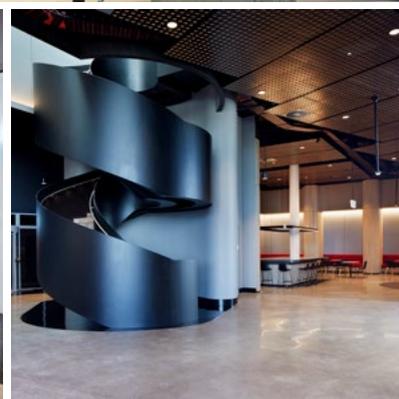
M3 Melbourne

M3 Melbourne is a hyperscale campus, located in West Footscray approximately 10km west of Melbourne's CBD. M3 forms the state's leading technology hub for hyperscale cloud providers, enterprise organisations and Government entities.

Delivering 320MW of power, M3 is a completely fault tolerant facility, built and certified to NEXTDC's premium Uptime Tier IV resilience standards and will champion the energy efficiency and sustainability best practices NEXTDC are known for.

Directly interconnecting to M1 and M2, our Melbourne metropolitan campuses enable organisations to leverage the full advantage of direct, low latency access to network and cloud-dense digital services ecosystem.

Why choose NEXTDC

Flexible infrastructure

With over 72,000m^2 of technical space, NEXTDC's Melbourne 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 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.

Strategic partners

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

IBM Cloud

ORACLE Cloud

Google Cloud

OVHcloud

Microsoft Azure

aws

Technical specifications

	M1 Melbourne	M2 Melbourne
Cooling	• N+1 high efficiency water-cooled chillers, cooling towers and pumps • Dual Primary pipework header and distribution system for redundancy • Leak detection system for critical plant areas • CRAC units all located in secure plant corridor outside data hall suites • Hot aisle containment systems for data halls 1,2 and 3; Cold aisle containment systems in halls 4,5 and 6	• Hot aisle containment, no raised floor • Vertiv evaporative free cooling units • N+1 independent cooling systems, providing high levels of reliability and industry leading PUE of 1.28 (yearly average) or 1.10 (yearly lowest) • 24 hours of water stored on-site (minimum)
Electrical	• ISO Parallel Bus • N+1 redundancy • N+N rack level • Minimum 12 hours onsite fuel supply • 1.336MW Piller DRUPs 100% UPS for facility including all critical equipment	• ISO Parallel Bus • N+1 redundancy • N+N rack level • 1.5MW Piller rotary UPS supported by MTU (Rolls Royce) engines, supporting the entire site load • 12 hours of fuel stored on-site (minimum), per engine • 100% UPS backup of entire site including mechical for continuous cooling
Fire	• VESDA fire detection • Inert gas fire suppression with low pressure release, onsite supply for two data hall - level events	• VESDA fire detection • Inert gas fire suppression with low pressure release, onsite supply for two data hall - level events
Security	• Individual credential checks prior to authorisation • 24/7 onsite security operations • Two factor 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)	
Loading dock	• Secure, undercover loading dock facilities • Supporting large scale delivery of IT equipment • Unpacking space, with trash removal • Staging rooms, pre-test before move to data hall • Purpose built paths from delivery to data hall for rapid install and activation	
Front of House	• Support for escorted access and tours • Assistance with car parking and meeting rooms • Small package receipt and dispatch • 24/7 365 support on-site (if required)	
Customer Services	• Bookable meeting rooms and AV equipment • Dedicated office space for long-term private use • Chill-out and break-out suites equipped with kitchen facilities, coffee and refreshments, TV, lounge, massage chairs and Foxtel • Equipment staging room • 2 x 4 tonne lifts • Customer car parking • Spare parts vending machine • Crash carts • Guest Wi-Fi	
Carrier and Vendor Neutral	• Multiple street fibre connection pits and dual diverse Interconnect rooms • Open access for all fibre operators, Carriers, ISPs, MSPs	
Interconnectivity Solutions	• Gateway to NEXTDC's entire national ecosystem of public and private cloud, ISP and MSP providers • Data Centre Interconnect between M2 and M1 (1Gb/10Gb Fibre Pair) • Scalable on-demand connections • High performance, secure connections • Dedicated, low latency point-to-point Cross Connects	

M3 Melbourne

Cooling

- Hot aisle containment, ceiling plenum hot return space
- Stulz fan walls with indirect and direct economy cycle free cooling. Magnetic bearing high efficiency chillers
- N+1 independent cooling systems, providing high levels of reliability and industry leading PUE target of 1.29 (yearly average target) and capable winter a PUE target of 1.15 dependent on client supply air temperature setpoints.
- 24 hours of water stored on-site (minimum)

Electrical

- Redundant 2.7MW Piller UPS supported by MTU (Rolls Royce) engines, supporting the entire site load
- 24hours of fuel stored on-site (minimum)
- 100% UPS backup of entire site including mechanical infrastructure for continuous cooling

Fire

- Wagner Multipoint Aspirated Smoke Detection
- Inert gas fire suppression with low pressure release, onsite supply primary and reserve

Security

- ASIO Physical security ZONE 3 compliant
- Designed and built to meet minimum requirements for a Protective Security Policy Framework (PSPF)
- Physical security concept provides the necessary measures to DETER-DETECT-DELAY-RESPOND to any security event at any of the zones
- Ballistic rated Security Office
- 24/7 onsite elite security operations
- Extensive coverage by motion sensitive, high definition CCTV cameras
- Two factor Biometric fingerprint security for data centre access
- Individual credential checks prior to authorisation
- Anti-cloning access card encryption
- Secure lifts between floors
- Intruder-resistant glass, steel mesh and solid concrete walls
- Secure, undercover loading dock for deliveries
- Remote monitoring and rack access control via ONEDC®
- Monitoring of news and weather for external security risks

Loading dock

- Secure, undercover loading dock facilities
- Support for large scale delivery of IT equipment
- Unpacking space, with trash removal
- Staging rooms, pre-test before move to data hall
- Customer storage facilities available purpose-built paths from delivery to data hall for rapid install and activation

Front of House

- Support for escorted access and tours
- Assistance with car parking and meeting rooms
- Small package receipt and dispatch
- 24/7 365 support on-site (if required)

Customer Services

- Bookable meeting rooms and AV equipment
- Dedicated office space for long-term private use
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Interconnectivity Solutions

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- Scalable on-demand connections
- High performance, secure connections
- Dedicated, low latency point-to-point Cross Connects

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.
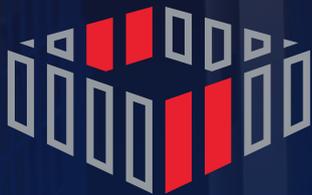
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