



Optus Dark Fibre

Optus Dark Fibre delivers a dedicated, unlit optic fibre service that gives businesses full control over their network, equipment, security, and scalability.

It starts with yes

yes OPTUS

Why Optus

Executive Summary

With one of Australia's most extensive fibre networks covering capital cities, metro areas, and regional centres, Optus connects you with confidence. You can install and manage your own optical transmission equipment to light up your dedicated fibre link.



Complete privacy

A dedicated fibre connection that bypasses public networks.



Scale your network

Upgrade equipment to scale the bandwidth without changing the fibre.



Boost performance

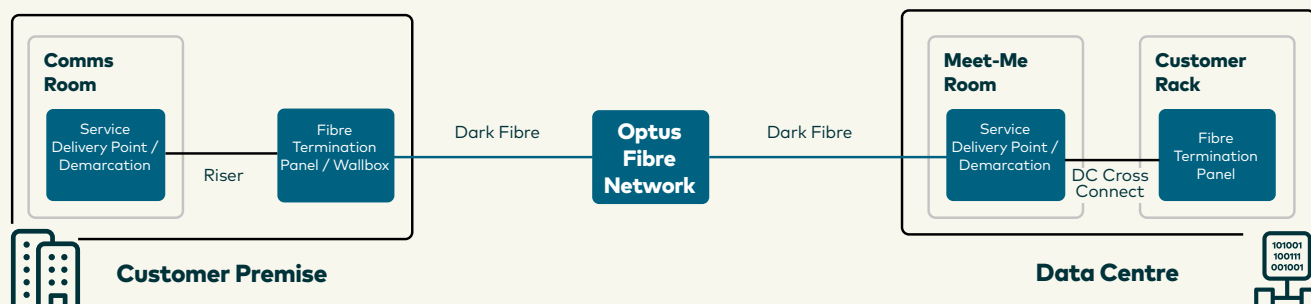
Handle data-heavy applications with low latency and high-speed data transfers.



Exceptional support

24/7 network monitoring and fast fault restoration.

How it works (example delivery)



Optus Dark Fibre benefits

- **Secure your data:**
A dedicated, point-to-point optic fibre connection for private data transmission that bypasses public networks.
- **Scale your network:**
Increase your bandwidth by upgrading equipment at termination points without changing the fibre infrastructure.
- **Control costs:**
Manage your own equipment and network protocols to optimise costs and performance.
- **Maximise reliability and resiliency:**
Deploy protected, diverse fibre paths to prevent outages and maintain continuous connectivity.
- **Boost performance:**
Handle data-heavy applications with low latency and high-speed data transfers.
- **Leverage 20+ years of expertise:**
Work with Optus's experienced dark fibre team and access 24/7 support through our Enterprise Business Service Desk.



Optus Dark Fibre features

- Dedicated physical point-to-point connection for control over network security and bandwidth.
- Customisable configurations with diverse paths, multiple fibre pairs, and flexible topologies.
- Support 100Gbps or more per wavelength, with the ability to use multiple wavelengths on a single fibre.
- Geographically diverse paths for resilience and continuous network uptime.
- Handover pack with full end-to-end testing and detailed test results provided.
- Low-latency performance, suitable for data-intensive applications like real-time backups, video conferencing, and e-commerce.

Optus Dark Fibre specifications

Parameter	Specifications
Compliance	ISO 9001, ISO 14001, OHS
Fibre type	Single mode optical fibre
Configuration	Point-to-Point configuration for customer premises and data centres
Diversity	Single or multiple fibre pairs, same path or diverse
Fibre pairs	Single/multiple
Mode field diameter (1300 nm)	$9.3 \pm 0.4 \mu\text{m}$
Mode field diameter (1550 nm)	$10.5 \pm 0.4 \mu\text{m}$
Attenuation coefficient	0.36 dB/km max after cabling (1310 nm) 0.22 dB/km max after cabling (1550 nm) 0.25 dB/km max after cabling (1625 nm)
Bending loss @ 1310 nm and 1550 nm	$\leq 0.05 \text{ dB}$ (100 turns around a mandrel of 50 nm diameter)
Zero-dispersion wavelength	$1312 \pm 12 \text{ nm}$
Zero-dispersion slope	$\leq 0.091 \text{ ps/nm}^2.\text{km}$
Refractive index	1.466 @ 1310 nm 1.467 @ 1550 nm

Why choose Optus?



Extensive fibre network:

Optus operates one of the largest fibre-optic networks across Australia's CBDs and broader metropolitan areas, connecting a wide range of buildings and data centres.



Proven experience:

Optus has a long history of providing Dark Fibre solutions, serving customers with thousands of kilometres of fibre.



Flexible path options:

We offer custom solutions, including single, optimised short paths or geographically diverse paths for enhanced resiliency, along with multiple fibre pairs, diverse lead-ins, and ring topologies.



24/7 support and SLAs:

Optus provides 24/7 customer support with service level agreements (SLAs) to match your business needs, including availability targets.



Customised design and project management:

We tailor our design, build, and project management processes to meet specific customer requirements.



Collaborative approach:

We work closely with our customers to verify and refine the design of the Dark Fibre service, including distances, splicing points, and expected attenuation levels.



Qualified pricing:

Optus provides fixed and accurate pricing, so you know exactly what to expect without surprises.

Find out more

Optus is trusted by many of Australia's largest organisations as a leading network service provider. We help businesses protect against security risks and deliver the resilience required today. Along with exceptional expertise and service, we offer a world-class network and best-in-class partner solutions.

Visit the product page

optus.com.au/enterprise/networking-security/network-connectivity/private-networks/optus-dark-fibre

Request a call back at

optus.com.au/enterprise/networking-security#request-callback

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