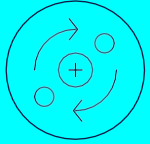

Vocus Wavelength



Vocus Wavelength services deliver premium performance and low latency site-to-site connectivity, offering extensive interstate and local coverage plus connectivity to Asia via our Perth to Singapore cable.

vocus.com.au

VOCUS

Our solution for you

Vocus Wavelength services deliver premium performance and low latency site-to-site connectivity, offering extensive interstate and local coverage plus connectivity to Asia via our Perth to Singapore cable.

Vocus Wavelength provides a premium transmission service for business-critical and latency-sensitive applications between two locations with speeds up to 400Gbps. Typical applications include core network transmission, data replication, data storage connectivity, and disaster recovery.

Our Wavelength services are delivered over the Vocus DWDM network, which connects all Australian mainland capitals, and our extensive regional network via our undersea cable networks to international locations, including Singapore and Jakarta. Combined with our coverage of all major data centres, over 5000 on-net buildings, and within a short distance of many thousands more, Vocus has the network to deliver premium transmission solutions.

Vocus Wavelength key features



Connects all mainland capitals, regional Australia, Jakarta and Singapore



Capable of service speeds up to 400Gbps



Highly available and secure network, with a fully redundant architecture



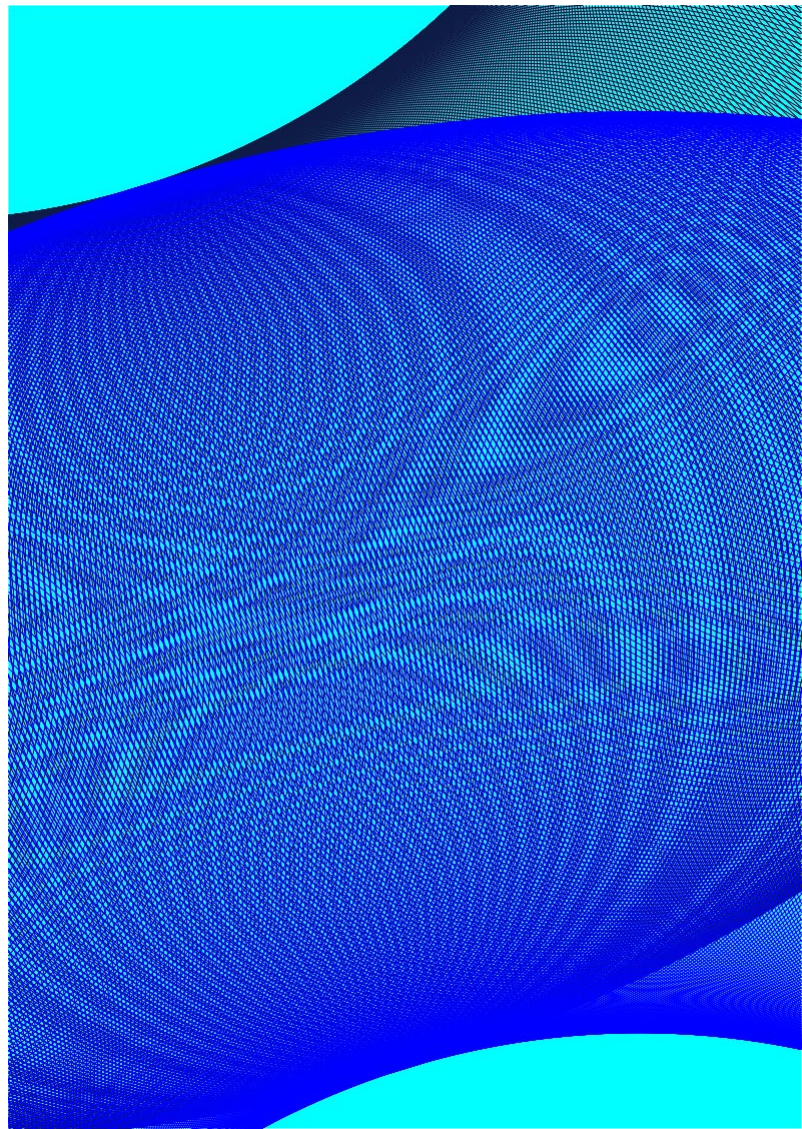
Supports a variety of interface types to satisfy a wide range of applications



24x7 operational support and automated service monitoring



Reliability backed by our SLAs and 99.95% availability target



Features and Benefits

Vocus Wavelength is suited for medium-to-large businesses seeking highly reliable, private connectivity over transmission-grade infrastructure. It delivers Ethernet, SDH, and Fibre Channel interfaces to satisfy a wide range of applications.

Superior grade of service

- Vocus Wavelength is delivered over our DWDM network, which provides dedicated bandwidth for uncompromised quality. If you want maximum performance with the lowest latency and frame loss, then Vocus Wavelength is the right choice.

Flexible and Scalable

- The Vocus transmission network is dimensioned for exceptional performance and is capable of service speeds up to 400Gbps. Our protocol transparency supports a wide range of protocols, giving you the freedom to choose your preferred applications.

Highly available, private connectivity

- Our Wavelength services provide highly reliable, private connectivity over our transmission grade, self-owned infrastructure. The Vocus core network has a fully redundant architecture, designed and built for continuous operation.
- We offer 99.95% availability with customised protection options to support your risk management requirements.

Choice of interfaces

- Vocus Wavelength provides Ethernet, OTN, SDH, and Fibre Channel interfaces to satisfy a wide range of applications, including core network backhaul, data replication, or interconnecting storage arrays. A range of bandwidth options are available.

Support & Service Level Agreements (SLAs)

- Our range of products are supported by an experienced team of technical experts within our 24x7 Network Operations Centre
- Industry leading service levels under our service level agreement

Product specifications

Attribute	Vocus Wavelength products			
	SDH	FIBRE CHANNEL	OTN	ETHERWAVE
Interface Type	SDH	Fibre Channel ^[5]	OTN	Ethernet
Service Speeds <small>(All services are line rate only)</small>	<ul style="list-style-type: none">STM-4 (600Mb/s)^[5]STM-16 (2.4Gb/s)^[5]STM-64 (9.6Gb/s)	<ul style="list-style-type: none">1Gb/s2Gb/s4Gb/s8Gb/s10Gb/s	<ul style="list-style-type: none">OTU-2OTU-2eOTU-4	<ul style="list-style-type: none">1Gb/s^{[1][5]}10Gb/s^[1]100Gb/s^[1]400Gb/s^{[1][5]}
Interface Type ^[2]	STM-4: <ul style="list-style-type: none">S-4.1 (~15km)^[5] STM-16: <ul style="list-style-type: none">S-16.1 (~15km)^[5] STM-64: <ul style="list-style-type: none">S-64.1 (20km)^[5]I-64.1 (2km)S-64.2 (40km)	<ul style="list-style-type: none">1Gb/s: 100-SM-LC-L2Gb/s: 200-SM-LC-L4Gb/s: 400-SM-LC-L8Gb/s: 800-SM-LC-L10Gb/s: 1200-SM-LL-L	OTU2/2e: <ul style="list-style-type: none">P1I1-2D1 (2km),P1S1-2D2b (40km) OTU4: <ul style="list-style-type: none">4I1-9D1F (10km)	1Gb/s: <ul style="list-style-type: none">100GBASE-LX^[5] 10Gb/s: <ul style="list-style-type: none">10GBASE-LR (10km)10GBASE-ER 40km) 100Gb/s: <ul style="list-style-type: none">100GBASE-LR4 (10km)100GBASE-ER4 (40km) 400Gb/s: <ul style="list-style-type: none">400GBASE-FR4 (2km)^[5]400GBASE-LR4 (10km)^[5]
MEF/ITU Standards Category	Not Applicable	Not Applicable	Not Applicable	EPL (Ethernet Private Line)
Frame Structure	ITU-T G.707	ANSI X3T11	ITU-T G.709	IEEE 802.3-2015
Transport Technology	DWDM	DWDM	DWDM	DWDM
Oversubscription	NIL - Wavelength services provide dedicated bandwidth.	NIL - Wavelength services provide dedicated bandwidth.	NIL - Wavelength services provide dedicated bandwidth.	NIL - Wavelength services provide dedicated bandwidth.
Frame Loss Target	Zero	Zero	Zero	Zero
Inter-Frame Variation Delay Target	< 0.01ms	< 0.01ms	< 0.01ms	< 0.01ms
Maximum Transmission Unit	Not Applicable	2148 bytes (SOF to EOF inclusive)	Not Applicable	9600 bytes (DA to FCS inclusive)
VLAN Transparency	Not Applicable	Not Applicable	Not Applicable	VLANs (IEEE 802.1Q) and Q-in-Q (IEEE 802.1AD)
Service Multiplexing Support	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Physical Connectors	Optical SC or LC Flat <small>(service location dependent)</small>	Optical SC or LC Flat <small>(service location dependent)</small>	Optical SC or LC Flat <small>(service location dependent)</small>	Optical SC or LC Flat <small>(service location dependent)</small>
Fibre Type	Single Mode Fibre	Single Mode Fibre	Single Mode Fibre	Single Mode Fibre
Protection Options ^[3]	Core network, end-to-end and diverse dual service	Core network, end-to-end and diverse dual service	Core network, end-to-end and diverse dual service	Core network, end-to-end and diverse dual service
Availability Target SLA ^[4]	99.95% (protected services) <small>Refer to the Vocus SLA for full details.</small>	99.95% (protected services) <small>Refer to the Vocus SLA for full details.</small>	99.95% (protected services) <small>Refer to the Vocus SLA for full details.</small>	99.95% (protected services) <small>Refer to the Vocus SLA for full details.</small>

NOTE:

[1] Etherwave (Ethernet) services are currently offered at interface rate only.

[2] All optical interfaces support single mode optical fibre only.

[3] Protection options are subject to availability.

[4] Availability target applies where the service is delivered over the Vocus fibre network.

[5] Not available on services between Perth, Singapore, Jakarta or Christmas Island.

Specification only applies for services delivered over Vocus infrastructure.



Want to learn more about how we can help you?

Contact your Vocus Account Manager or call us on 1300 88 99 88