Vocus Layer 2 Ethernet Services

Best in Class, Point to Point and Point to Multi Point Services

Vocus Layer 2 Point-to-Point and Point-to-Multipoint Ethernet services are best in class carrier grade services. Vocus Layer 2 Ethernet is designed to form part of the backbone of your network offering maximum flexibility to link your locations and unparalleled performance.

Vocus Ethernet services are available between all Vocus PoPs in Australia, New Zealand, Singapore and the United States. In Australia services can be extended out from our POP's via our own fiber optic network in the CBD's of each Australian capital city.

Vocus currently maintains PoPs in Sydney, Melbourne, Brisbane, Canberra, Adelaide, Perth, Auckland, Singapore, San Jose, Palo Alto and LA.

Speeds Available

Layer 2 services are available in standard increments from 10Mbps to 10Gbps.

Provisioning

Services are normally provisioned on a standard 10 working day lead time in Vocus PoP locations and bandwidth can be increased on 24 hours notice*

Service Delivery

Vocus layer 2 services are presented as a standard copper or single mode optical ethernet interface on our carrier grade network termination unit (NTU). The NTU acts as both service delivery demarkation point but also as our service monitoring platform to ensure your service is running in line with our committed Service Level Agreement (SLA).

Service Level Agreements (SLA's)

We stand behind our network which is why we offer a comprehensive SLA with every service we deploy.That's confidence built on a true carrier grade fault tolerant architecture designed by some of the industries leading engineers.

Complementary Products

As a specialist carrier we also offer a range of complementary products. If you're looking for a single partner for all of your high-end communication needs talk to us about our dark fibre network, our carrier grade IP Transit or our co-location services.

Here's what our clients have to say:

Vocus have been a supplier to iinet for over 2 years and it is their service that sets them apart. We know that if we need support we can call them, speak to someone who knows what they are talking about and get it fixed - fast.

Greg Badder, iinet

VOCUS communications

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Ethernet Layer 2 Specification

Service Attribute	Service Attribute Parameters and Values	Service Attribute Parameters and Values
MEF Service Types	Ethernet Private Line (EPL) Point	Point to Multi-Point EVC (EVPL)
Supported Ethernet Standards	IEEE 802.3, 802.1Q, 802.1AD	IEEE 802.3, 802.1Q, 802.1AD
Service Level Availability	99.95%	99.95%
UNI Service Attribute	Service Attribute Parameters and Values	Service Attribute Parameters and Values
Physical Medium	IEEE 802.3-2002 Physical Interface	IEEE 802.3-2002 Physical Interface
Interface Speed	1Gbps for services <1000Mbps, 10Gbps for services >1000Mbps	1Gbps for services <1000Mbps, 10Gbps for services >1000Mbps
Mode	Full Duplex	Full Duplex
MAC Layer	IEEE 802.3-2002	IEEE 802.3-2002
Service Multiplexing	No	Yes, Supported
Bundling	No	Yes, Supported
All to One Bundling	Yes	No
CE-VLAN ID / EVC Map	All Service Frames at the UNI map to a single E-Line Service type EVC	Must specify CE-VLAN ID for untagged and priority Service Frames
Maximum number of EVCs	One	> 1
Bandwidth Profile Per Ingress UNI	Service Attribute Parameters and Values	Service Attribute Parameters and Values
Committed Information Rate (CIR)	[SPEED IN Mbps PURCHASED] (MUST be <= UNI Speed)	[SPEED IN Mbps PURCHASED] (MUST be <= UNI Speed)
Committed Burst Size (CBS)	CIR/32	CIR/32
Excess Information Rate (EIR)	0	0
Excess Burst Size (EBS)	0	0
Layer 2 Control Processing	Action	Action
STP, RSTP, MSTP	Tunnel	Discard
Pause (802.3x)	Discard	Discard
LACP	Tunnel	Discard
Marker Protocol	Tunnel	Discard
Authentication (802.1x)	Tunnel	Discard
All LANs Bridge Management Group Block of Protocols	Tunnel	Discard
GARP Block of Protocols	Tunnel	Pass to EVC
EVC Service Attribute	Service Attribute Parameters and Values	Service Attribute Parameters and Values
EVC Type	Point-to-Point	Point to Multi-Point
Maximum MTU	4400	4400
CE-VLAN ID Preservation	Yes	Yes
CE-VLAN CoS Preservation	Yes	Yes
Number of CE-VLAN IDs accepted by EVC	No limit enforced by service	No limit enforced by service
Unicast Service Frame Delivery	Deliver Unconditionally	Deliver Unconditionally
Multicast Service Frame Delivery	Deliver Unconditionally	Deliver Unconditionally
Broadcast Service Frame Delivery	Deliver Unconditionally	Deliver Unconditionally

Vocus IP Transit Solutions

Dedicated, high capacity, carrier grade internet access with built-in Distributed Denial of Service protection [DDoS]

Vocus Communications is the IP Transit provider of choice to some of the leading service providers and corporations in Australia.

Not all internet access is created equal

Many companies provide what they describe as 'business grade' access to internet capacity, Vocus provides 'Carrier Grade' to big brand names like Vodafone in New Zealand and iiNet in Australia. These companies rely on our high availability, committed bandwidth and carrier grade network for some of the key aspects of their business.

Access to our internet services are now available to enterprises who connect via our own fiber network or directly via one of our Points of Presence (PoP) in a number of major data centers throughout Australia.

Integrated protections from Distributed Denial of Service [DDoS] attacks

DDoS attacks are becoming more prevalent around the world, recent high profile attacks halted companies like Mastercard from trading for more than 24 hours. Because approximately 85% of all internet traffic still comes from the US, we have deployed an Arbor Networks Peakflow SP security system in our US POP which continually monitors all traffic looking for an attack. If traffic is identified as hostile we can drop that traffic before it gets to Australia.

Vocus & the Cloud Signaling Coalition

Vocus is now a trusted member of the Arbor Networks Cloud Signaling Coalition. Vocus is the first Australian Telco to be admitted to the cloud signaling coalition and is committed to being a leading provider of DDoS protected IP Transit services.

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Commitment With Performance

"If you need more, you can have it, our 4 hour upgrade commitment"

The nature of traffic on the internet and the demands of your business can sometimes make it difficult to predict exactly how much capacity you will need at a given point in time. In the past this could mean that your internal users or your customers would experience unacceptable levels of service whilst you arranged for upgrades to links which could take days or even weeks. Where possible at Vocus we will upgrade your service in just 4 hours from receiving your request.

Our Commitment

We stand by our customer care promises. We offer a comprehensive service level agreement for every service we deploy.

Because our network was built for the most demanding customers, by engineers for engineers, you're only a single phone call away from real experts to help in the event of an issue.

Complementary Products

As a specialist carrier we also offer a range of complementary products. If you're looking for a single partner for all of your high-end communication needs talk to us about our co-location services or our domestic and international IP transit products.

Our Awards

AUG 2011	Voted Carrier of the Year
BRW FAST STARTERS 2012	Awarded BRW Fast 100 2012
Deloitte. Technology Fast500	Asia Pacific 2010 Winner
THE ACOMMS Communications Alliance & Commsday Awards 2012	Commitment to Customer Service Award Winner

Contact Us

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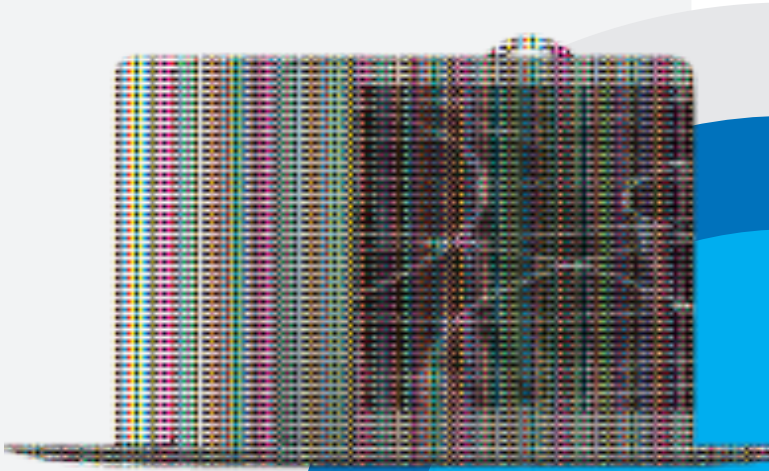

Vocus Dark Fibre Solutions

Secure, scalable, limitless capacity and you're in control.

Vocus Communications offers dedicated dark fibre solutions in major capital cities providing our customers with scalable, cost effective and future proofed networking for their mission critical applications.

Demand for bandwidth to connect to data centers for mission critical applications or disaster recovery or to connect your sites together to access corporate data and applications continues to grow at a rate never envisaged a few years ago.

Only a dedicated dark fibre solution puts you back in control and provides the path for almost limitless bandwidth to meet your needs not only now but into the future.

Vocus are a specialist provider of dark fibre solutions with extensive network reach in every capital city. Our dark fibre solutions are both cost effective and future proof giving you the choice of which transmission technology you want to use and the flexibility to upgrade and change out technologies as newer, higher capacity systems become available.

Dark fibre gives you complete control and unprecedented security with a dedicated physical connection between you and your mission critical data and applications.

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Commitment With Performance

Pure Glass

We deploy standards based (ITU G.652.C or .D) single mode optical fibre (SMOF) cable optimized for operation in the 1310nm and 1550nm wavelengths.

This type of fibre provides for maximum throughput and performance with a range of readily available transmission technologies including support for xWDM services.

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THE ACOMMS Communications Alliance & Commsday Awards 2010	Innovation Winner 2010

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