

INTERNET AND IP TRANSIT SERVICE SCHEDULE

- Australia -

1. **DEFINITIONS**

Defined terms in the Standard Terms and Conditions have the same meaning in this Service Schedule unless expressed to the contrary. In this Service Schedule, unless the context otherwise requires:

Aggregated Billing means the method of billing as described in clause 4.1(d).

BGP means Border Gateway Protocol version 4.

Customer means the Customer described in the Service Order and any of its employees, sub-contractors, agents and representatives.

Data Plan means the method of billing as described in clause 4.1(b).

DDoS means distributed denial-of-service.

DDOS Protection Service means the distributed denial-of-service protection service which assists in attacks that attempt to make a Vocus and/or Customer network unavailable to its intended users.

End Users mean a customer of the Customer.

Flat Rate means the method of billing as described in clause 4.1(a).

IP Burst means the method of billing as described in clause 4.1(c).

IP Transit provides Internet connectivity to the Customer's nominated location and includes both IP Transit and other Internet products offered by Vocus from time to time.

NBN Access means the service used to transmit a Service using the NBN Co Network provided by Vocus.

NBN Co Network means the telecommunications equipment, the satellite, wireless, copper, aluminium and optical fibre networks owned or controlled by, or operated by NBN Co Ltd (or any Related Body Corporate of NBN Co Ltd).

Standard Terms and Conditions means the Standard Terms and Conditions between Vocus and the Customer governing the general terms and conditions of the Services provided under this Service Schedule and any applicable Service Order from time to time.

Service means IP Transit service which includes, without limitation, the services known as Vocus Internet Express, Vocus Business Unlimited, Vocus Enterprise Internet and DDOS Protection Service (where applicable).

Service Interface means the physical interface at the Service Delivery Point by which the Customer connects to the Service. Vocus Network means any telecommunications network, equipment, or facilities, or cabling owned, controlled or utilised by Vocus.

Vocus SLA means the Vocus service level agreement which can be found at http://www.vocus.com.au/legal-contracts, as updated from time to time.

2. THE SERVICE

- 2.1. This Service Schedule applies to the delivery of Services across the Vocus Network. This Service Schedule will apply to the first and any subsequent Service Orders executed by the Customer and Vocus for the Services.
- 2.2. Vocus will provide the Services to the Customer on the terms of the Standard Terms and Conditions (whichever is applicable), this Service Schedule and any applicable Service Orders, all of which are binding on the Customer. The Customer must use the Services (and, where applicable, will ensure that its End Users use the Services) in accordance with the terms of the Standard Terms and Conditions, this Service Schedule, any applicable Service Orders and all applicable laws.
- 2.3. Vocus may vary the Service if reasonably required for technical, operational and commercial reasons provided such variation does not have a material adverse effect on the Customer.
- 2.4. Where the Customer orders a Service delivered using NBN Access, Vocus will provide the NBN Access in accordance with the NBN Access service schedule which is available from Vocus.

3. PROVISION OF SERVICE

3.1. Vocus maintains and operates the Vocus Network under the Autonomous System



- Numbers 4826, 9398, 9503, 9822, 9889, 18406 and 18037. Vocus may add or remove Autonomous System Numbers from the Vocus Network as required.
- 3.2. The Vocus international network includes peering and transit services with numerous networks to ensure redundancy, network resilience and network reachability. Vocus reserves the right to add, change or remove peering and transit services, without notice.
- 3.3. Customers may exchange route information with Vocus via the BGP.
- 3.4. Vocus will supply a full global BGP routing table to the Customer or a default route as specified in the Service Order.
- 3.5. The global routing table is large and constantly growing. If the Customer elects to use BGP and receive a full routing table, Vocus recommends the Customer ensure their equipment is capable of supporting the current table and its future growth.
- 3.6. The Customer must not use BGP routing protocols or any other means to direct Customer bound traffic to Vocus DDoS mitigation devices unless they have an active DDoS Protection Service in accordance with clause 14.
- 3.7. Vocus will provide a standards based interface for the Customer to connect to the Vocus access device at each agreed location. The Service Interface bandwidth must be equal to or greater than the bandwidth of the Service provided via the Service Interface.
- Vocus will deliver the Service at the location and for the Initial Term specified in the Service Order.
- 3.9. The Service may not be available in all locations. All services are subject to a qualification process in order to confirm availability however availability cannot be guaranteed by Vocus. If Vocus is unable to deliver the service ordered, Vocus will contact Customer to discuss further options and will cancel the original service order.
- 3.10. Customer acknowledges that the speed of the Service as indicated in the Service Order is a theoretical maximum. The actual throughput of the Service will be less than the speed specified in the Service Order due to

- overheads and characteristics of the transmission protocols used to deliver the Service.
- 3.11. As the Service provides transmission over the Internet, including networks outside the control of Vocus, Vocus does not guarantee data transmission using the Service. Information or packet loss may occur from time to time. Throughput may vary depending on the nature of the transmission, source and destination, hardware and software configurations, path, and utilisation and capacity of networks and systems used in the transmission.
- 3.12. A Service designated "Domestic" or "Domestic Only" on the Service Order is provided with Internet routes advertised to the Vocus Network by our intra-country transit providers and peers only. International routes to the Internet are not included.
- 3.13. A Service designated "International" or "International Only" on the Service Order is provided with Internet routes advertised to the Vocus Network by our international upstream transit providers and peers only. Intra country routes to the Internet are not included.
- 3.14. A Service designated as "Blended" on the Service Order will be provided with both intracountry (i.e. Domestic) and international routes from our transit providers and peers.
- Where a Service is not designated "Domestic" or "International" then it is assumed to be Blended.
- 3.16. Where the Service is delivered into a data centre, Vocus will terminate the Service in a common area or meet-me room, irrespective of any Vocus Equipment to be situated in the Customer's colocation facility. It is the responsibility of the Customer to arrange any cross connection cabling between the common area or "Vocus Meet Me" room and the Customer's location unless otherwise agreed by Vocus.
- 3.17. Vocus reserves the right to undertake any action necessary to protect its network, including undertaking protection measures against a DDoS attack, and is not liable to the Customer as a result of such action.
- 3.18. The Customer must ensure any Customer Equipment connected to the Service is



capable of rate shaping or limiting the speed of transmission into the Vocus network to the speed of the Service provided, except where Vocus Equipment provides IP routing and performs the rate shaping. Any performance degradation due to the inability of Customer Equipment in this regard is not a breach of the Vocus SLA.

4. BILLING

- 4.1. The Service may be billed using one of the following methods:
 - (a) Flat Rate, where a fixed monthly amount is payable by the Customer based on the speed of the Service.
 - (b) Data Plan, where a fixed monthly fee for a fixed amount of traffic is payable by the Customer and any excess usage is charged at the rate as listed in the Service Order. Unless otherwise stipulated in the Service Order, usage is calculated based on the Autonomous System Numbers as follows:
 - (i) Services connected to the Vocus networks AS4826 and AS18037 are billed based on the larger of the amount of downloaded or uploaded data during the billing period; and
 - (ii) Services connected to the Vocus network AS9889 are billed based on the total of the amount of downloaded and uploaded data during the billing period.
 - (c) IP Burst, where a fixed monthly amount for usage up to a fixed speed is payable by the Customer and an additional charge is payable in the event the Customer uses the Service above the fixed speed. In particular:
 - (i) The Service is billed using a 95th percentile billing method. The Service Order stipulates the amount of IP Transit the Customer purchased in Mbps (referred to as the 'Committed

- Speed') for a fixed monthly fee and the maximum speed at which transmission may occur (referred to as the 'Burst Speed').
- (ii) Where the measured usage of the Service (in Mbps) is the Committed above Speed, a fee is payable for such usage above the Committed Speed ('IP Burst Fee') per Mbps and is listed on the Service Order. If the IP Burst Fee is not listed in the Service Order, it will be 25% more than the per Mbps fee for the Committed Speed.
- (iii) The ratio of the Burst Speed to the Committed Speed shall not exceed 2:1 unless otherwise agreed by Vocus. Bandwidth above the Committed Speed is subject to availability and is not guaranteed.
- (d) Aggregated Billing where two (2) or more ports may be billed as if it was a single port. For example, two (2) separate 100Mbps ports may be billed as 200Mbps. A charge for each additional port applies.
 - (i) Aggregated Billing may be combined with IP Burst, subject to the approval of Vocus.
 - (ii) Where the Customer orders additional ports without also increasing the amount of IP Transit (in Mbps) Committed Speed to match total bandwidth supplied, the Service will be billed using Aggregated Billing with IP Burst and the IP Burst Fee payable by the Customer will be as stated in the Service Order or, where not stated in the Service Order, will be 25% more than the per Mbps fee



for the associated IP Transit.

4.2. Aggregated Billing and IP Burst are not available in all locations or with all Services.

5. THIRD PARTY SERVICES

- 5.1. Where the Service provided by Vocus includes equipment or transmission services from a Supplier or other Third Party and additional costs are identified that are considered by Vocus to constitute a material cost, Vocus will present any such charges to Customer to agree. Should the Customer not agree to pay these charges within 14 days, the relevant service order(s) will deemed by Vocus to be cancelled and the customer may be charged any pre-delivery costs. Additional costs include:
 - (a) Cabling, network construction and other work to connect the Supplier's network to the network boundary point at the Customer's location;
 - (b) Cabling and associated works between any network boundary point and the Customer's location:
 - (c) Other items or services as charged by the Supplier from time to time.

6. IP ADDRESSES SUPPLIED BY VOCUS

- 6.1. Customers may elect to use Vocus supplied IP addresses which will be of type IPv4 and/or IPv6.
- 6.2. A single fixed IP address is provided at no charge for the use of the Customer in order to connect to the Service. Fees apply for any additional IPv4 addresses required by the Customer.
- 6.3. Any IP addresses allocated to the Customer by Vocus remain the property of Vocus and are not transferable.
- 6.4. The Customer's right to use the Vocus supplied IP addresses ceases upon the termination of the agreement for supply of the Service, cancellation of the Service, or where Vocus ceases to provide the Service to the Customer.
- 6.5. Vocus reserves the right to change any Vocus supplied IP addresses allocated to the

- Customer on at least 7 days' notice or immediately if an urgent change is required in order to maintain Vocus network availability or stability or to correct a fault. Vocus will work with the Customer in order to minimize any disruption to the Service during the change.
- 6.6. The Customer may request the reallocation of IP Addresses to an active Service which is subject to Vocus' approval. Additional fees apply for reallocations of more than four (4) contiguous IP addresses. Depending on the size of the address reallocation, additional information may be required from the Customer in order for Vocus to fulfil the request.
- 6.7. In the event the Customer cancels the Service to which the IP Addresses are attached, the IP Addresses may be allocated by Vocus to the Services of other Vocus customers.
- 6.8. Requests for more than 256 IP addresses are not generally available from Vocus and should be referred to APNIC (Asia Pacific Network Information Centre) or the relevant Regional Internet Registry.

7. IP ADDRESSES SUPPLIED BY CUSTOMER

- 7.1. Customers may elect to supply their own IP Addresses in which case the Customer must ensure the timely payment of all fees due and payable to applicable Regional Internet Registries (including but not limited to APNIC).
- 7.2. In the event Vocus is aware that the Customer has failed to make payment of any fee due and payable to the relevant Regional Internet Registry, Vocus may terminate the relevant Service Order and invoice the Customer for any Fixed Term Charge due in respect of the Service for the remainder of the Initial Term.

8. VOCUS INTERNET EXPRESS

- 8.1. Vocus Internet Express (VIE) is a Service with the following limitations:
 - (a) VIE is only available at the symmetrical speeds of 10Mbps, 40Mbps, 100Mbps, 200Mbps, 250Mbps or 500Mbps unless



- otherwise offered by Vocus, from time to time;
- (b) 100Mbps, 200Mbps, 250Mbps and 500Mbps services are only available to eligible customers in limited Vocus on-net and near-net buildings;
- (c) 10Mbps and 40Mbps services are only available to eligible customers in limited Vocus on-net buildings;
- (d) Customer must supply their own router:
- (e) BGP peering is limited to one (1)
 Autonomous System Number only
 (i.e. no more than one Autonomous
 System may route traffic from the
 VIE service to the Vocus network);
 and
- (f) VIE is only available with Flat Rate billing. Data Plan billing, IP Burst and Aggregated Billing are not available.
- 8.2. VIE may not be used by Internet, hosting or other service providers as part of their own products or services or used to aggregate Internet traffic for more than one (1) End User.
- 8.3. A VIE service may be re-sold "as-is" to an End User.
- 8.4. VIE may not be sold for provision into a data centre, except where agreed to in writing by Vocus.
- 8.5. Where the Customer is in violation of clauses 8.2, 8.3 or 8.4, Vocus may suspend or cancel a service on two (2) days written notice.

9. VOCUS BUSINESS UNLIMITED

- 9.1. Vocus Business Unlimited (VBU) is a Service with the following limitations:
 - (a) VBU is only available at the theoretical maximum symmetrical speeds of 50Mbps, 100Mbps, 200Mbps or 400Mbps unless otherwise offered by Vocus, from time to time;
 - VBU is only available to eligible customers in limited coverage areas as offered by Vocus;

- (c) Customer must supply their own router;
- (d) BGP peering is limited to one (1)
 Autonomous System Number only
 (i.e. no more than one Autonomous
 System may route traffic from the
 VBU service to the Vocus network);
- (e) VBU is only available with Flat Rate billing. Data Plan billing, IP Burst and Aggregated Billing are not available; and
- (f) VBU is provided using a best-effort transmission service, from a Supplier, between the Service Interface and the Vocus network. Actual throughput may be less than the speed provided from time to time.
- 9.2. VBU may not be used by Internet, hosting or other service providers as part of their own products or services or used to aggregate Internet traffic for more than one (1) End User.
- 9.3. A VBU service may be re-sold "as-is" to an End User.
- 9.4. VBU may not be sold for provision into a data centre, except where agreed to in writing by Vocus.
- 9.5. Where the Customer is in violation of clauses 9.2, 9.3 or 9.4, Vocus may suspend or cancel a service on two (2) days written notice.

10. VOCUS ENTERPRISE INTERNET

- 10.1. Vocus Enterprise Internet (VEI) is a Service with the following limitations:
 - (a) VEI is only available at the symmetrical speeds 10M, 20M, 50M, 100M, 150M, 200M, 250M, 300M then 100M increments to 1Gbps unless otherwise offered by Vocus, from time to time;
 - (b) VEI is only available to eligible customers in limited coverage areas as offered by Vocus;
 - (c) Customer must supply their own router;
 - (d) BGP peering is limited to one (1) Autonomous System Number only (i.e. no more than one Autonomous



- System may route traffic from the VEI service to the Vocus network);
- (e) VEI is only available with Flat Rate billing. Data Plan billing, IP Burst and Aggregated Billing are not available; and
- (f) VEI is not available with link aggregation.
- 10.2. VEI may not be used by Internet, hosting or other service providers as part of their own products or services or used to aggregate Internet traffic for more than one (1) End User.
- 10.3. A VEI service may be re-sold "as-is" to an End User.
- 10.4. Where the Customer is in violation of clauses 10.2 or 10.3, Vocus may suspend or cancel a service on two (2) days written notice.

11. VOCUS BUSINESS INTERNET

- 11.1. Vocus Business Internet (VBI) is a Service with the following limitations:
 - (a) VBI is provided to the Customer location, as specified on the Service Order, using a NBN Access or other access as offered by Vocus;
 - (b) Where VBI uses an NBN Access the Service is only available up to the downstream/upstream speeds of 25/5Mbps, 50/20Mbps and 100/40Mbps unless otherwise offered by Vocus, from time to time;
 - (c) The Service Interface will be an Ethernet interface unless the NBN Access uses FTTB or FTTN, in which case the Service Interface will be either a VDSL interface (default) or, where available from Vocus, the Customer may order an Ethernet interface on the Service Order (additional fees apply).
 - (d) Customer must supply their own router;
 - (e) BGP peering, where available and offered by Vocus, is limited to one (1) Autonomous System Number only (i.e. no more than one Autonomous System may route traffic from the

- VBN service to the Vocus network); and
- (f) VBI is only available with Flat Rate billing. Data Plan billing, IP Burst and Aggregated Billing are not available.
- 11.2. VBI may not be used by Internet, hosting or other service providers as part of their own products or services or used to aggregate Internet traffic for more than one (1) End User.
- 11.3. A VBI service may be re-sold "as-is" to an End
- 11.4. Where the Customer is in violation of clauses 11.2 or 11.3, Vocus may suspend or cancel a service on two (2) days written notice.

12. ROUTE ANNOUNCEMENT, REGISTRATION AND FILTERING

- 12.1. The Customer must announce all prefixes for which the Customer wants to receive IP Traffic by way of BGP.
- 12.2. Vocus will in all cases filter prefixes and AS Numbers it receives from the Customer.
- 12.3. The Customer must register all routes and downstream AS Numbers from which it wishes to receive traffic from Vocus with the Vocus support centre. Vocus will update its own filters and advise its upstream providers and peers.
- 12.4. Vocus may be required to update filters with some of its transit providers. Vocus makes no guarantee that those providers will update their filters within the timeframe listed above.
- 12.5. By requesting the registration of a prefix or AS number, the Customer warrants that it is the owner or leaseholder of those resources, or is authorised by the owner or leaseholder to use that resource.
- 12.6. Should Vocus receive a complaint about the Customer's use of an Internet resource (such as IP block or AS number) Vocus will resolve all such complaints in favour of the organisation listed in the APNIC (or relevant regional Internet registry) WHOIS database. In the event of a dispute, the onus is on the Customer to prove ownership of the resource. Should the Customer be unable to do this, any decision taken by Vocus to not permit a prefix announcement will not be considered a



breach of any SLA or covenant of this agreement.

12.7. Vocus will not supply public AS numbers to the Customer. The Customer should contact APNIC for allocation of such resources.

13. SERVICES OVER COPPER

- 13.1. With respect to Services delivered over copper (including via Ethernet over Copper), the Customer acknowledges that:
 - (a) the speeds available to Customer are dependent on factors outside of Vocus' control including, without limitation, distance from the exchange, availability and quality of copper cabling and hardware; and
 - (b) the speeds specified in the Service Order are not guaranteed although the Customer will receive the maximum speed supported on the line up to the specified speed as specified in the Service Order.

14. DDOS PROTECTION

- 14.1. Customer may order a DDoS Protection Service with their Service in the Service Order which will be provisioned in accordance with clause 13 (DDoS Protection Service).
- 14.2. The DDoS Protection Service is not available with all Services and is made available at the absolute discretion of Vocus.
- 14.3. The DDoS Protection Service provides protection against DDoS events that, in the sole opinion of Vocus, require mitigation using traffic scrubbing, filtering, black holing or any other action in order to protect the Vocus Network and/or the Customer's network. The Service Order will stipulate whether the Customer has procured one or both of the following components of the DDoS Protection Service:
 - (a) DDoS Detect which comprises of DDoS and traffic reporting, DDoS event alerts.
 - (b) DDoS Protect which comprises of the provision of on-net DDoS protection to automatically mitigate DDoS events detected by the Vocus DDoS detection system at all times.

The Customer may use BGP routing protocols or any other means to direct Customer bound traffic to Vocus DDoS mitigation devices for the duration of the attack only. The Customer may also contact the Vocus support centre to request Vocus DDoS Protect if an attack was not detected by Vocus DDoS Detect. Vocus will in its sole discretion determine the method of mitigation to be used against a DDoS attack including, but not limited scrubbing, filtering and black holing of traffic. Scrubbing of DDoS traffic as an action to mitigate a DDoS attack is limited to the current capacity of the on-net scrubbing system within the Vocus Network. At any given time, the current capacity will depend on the source of the attack traffic, the ingress route and type of traffic destined for the host under attack, the volume of concurrent traffic being scrubbed and other factors. Where a DDoS attack is larger than the scrubbing capacity of the Vocus mitigation system, Vocus may black hole traffic or use other methods at its disposal to mitigate the attack.

- 14.4. Customers who have only procured DDoS Detect may request that Vocus provide DDoS Protect for a period of up to 24 hours for an additional fee by contacting Vocus support centre via telephone. At the end of the applicable 24 hour period, Vocus will cease providing Vocus DDoS Protect unless notified by the Customer to continue for a further 24 hour period for an additional fee.
- 14.5. If the Customer has not ordered a DDoS Protection Service, that Customer may request, at no charge, mitigation of a DDoS attack in accordance with clause 14.4 once during the term of their Service, after which that Customer must order a DDoS Protection Service, if available with the Service.
- 14.6. The DDoS Protection Service provides volumetric DDoS protection, not protection against application level attacks. DDoS protection is not available if in the sole opinion of Vocus:



- (a) the traffic is not categorised as volumetric DDoS traffic, or
- (b) the work required to identify, profile and mitigate the traffic is substantial, in which case Vocus may charge a fee for service as agreed by the Customer.
- 14.7. A Customer who orders a DDoS Protection Service is entitled to access online systems via a single user ID as provided by Vocus which includes information regarding DDoS events. The Customer may request access for additional users for a fee.
- 14.8. Each order for a DDoS Protection Service may be applied only to one Service (a single connection or an aggregated billing group of internet connections) provided by Vocus under a Service Order. All IP addresses associated with that Service will be monitored. Additional charges apply if the Customer requires monitoring of additional IP addresses or a subset of a larger range of IP addresses already being monitored.
- 14.9. With respect to the DDoS Protection Service, Vocus is not liable and otherwise excludes all liability in negligence or otherwise (whether under this agreement, any other Vocus agreement or under any Vocus SLA) in connection with, or in relation to:
 - (a) any traffic being rerouted away from the Customer or any delays or other changes to traffic caused by routing, filtering or cleaning of the Customer's traffic;
 - (b) DDoS events not detected or protected by Vocus; or
 - (c) any traffic to, or from the Customer's Service that may be delayed, dropped or otherwise affected.

15. SERVICE LEVEL AGREEMENT

- 15.1. Subject to the terms of the Standard Terms and Conditions, this Service Schedule and any applicable Service Orders, Vocus will provide the Services in accordance with the Vocus SLA.
- 15.2. The Service is considered available in relation to the Service Level Agreement if data can be transmitted using the Service.

16. RELOCATIONS

- 16.1. In the event the Customer requires a relocation of the Service to a new location, it must give to Vocus a written request in a manner nominated by Vocus. The Customer acknowledges that not all Services can be relocated.
- 16.2. Vocus will respond to the request and advise, in its absolute discretion, the Customer whether the Services can be relocated.
- 16.3. In the event the Services can be relocated, a once-off fee may apply as well as a change to the monthly recurring fee for the Service as a result of the relocation.

17. UPGRADES

- 17.1. The Customer may request that the Service be upgraded, being where the existing service is upgraded or enhanced without being replaced by a different type of service. The Customer acknowledges that not all Services can be upgraded.
- 17.2. Vocus will respond to the request and advise, in its absolute discretion, the Customer whether the Services can be upgraded.
- 17.3. A once-off upgrade fee and additional monthly fees may apply.