
2degrees

Internet and IP Transit Service

Schedule (including 2degrees Internet Express)



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:

2degrees means Vocus (New Zealand) Limited (NZCN 1371006).

2degrees Network means any telecommunications network, equipment, or facilities, or cabling owned, controlled or utilised by 2degrees.

2degrees SLA means the 2degrees service level agreement which can be found at <https://business.2degrees.nz/legal-contracts> as updated from time to time.

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.

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 2degrees and/or Customer network unavailable to its intended users.

End Users mean a customer of the Customer.

IP Transit provides Internet connectivity to the Customer's nominated location and includes both IP Transit and other Internet products offered by 2degrees from time to time.

Standard Terms and Conditions means the standard terms and conditions between 2degrees 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, which can be found at <https://business.2degrees.nz/legal-contracts>

Service means IP Transit service and DDOS Protection Service (where applicable).

Service Interface means the physical interface at the Service Delivery Point by which the Customer connects to the IP Transit Service.

2. The Service

- 2.1. This Service Schedule applies to the delivery of Services across the 2degrees Network. This Service Schedule will apply to the first and any subsequent Service Orders executed by the Customer and 2degrees for the Services.
- 2.2. 2degrees 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. 2degrees 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.

3. Provision of IP Transit service

- 3.1. 2degrees maintains and operates the 2degrees Network under the Autonomous System Numbers 4826, 9398, 9503, 9822, 9889, 18406 and 18037. 2degrees may add or remove Autonomous System Numbers from the 2degrees Network as required.
- 3.2. The 2degrees international network includes peering and transit services with numerous networks to ensure redundancy, network resilience and network reachability. 2degrees reserves the right to add, change or remove peering and transit services, without notice.
- 3.3. Customers may exchange route information with 2degrees via the BGP.
- 3.4. 2degrees 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, 2degrees 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 2degrees DDoS mitigation devices unless they have an active DDoS Protection Service in accordance with clause 11.

- 3.7. 2degrees will provide a standards based interface for the Customer to connect to the 2degrees access device at each agreed location. The Service Interface bandwidth must be equal to or greater than the bandwidth of the IP Transit Service provided via the Service Interface.
- 3.8. 2degrees will deliver the IP Transit Service at the speed, location and for the Initial Term specified in the Service Order.
- 3.9. An IP Transit Service designated “Domestic” or “Domestic Only” on the Service Order is provided with Internet routes advertised to the 2degrees Network by our intra-country transit providers and peers only. International routes to the Internet are not included.
- 3.10. An IP Transit Service designated “International” or “International Only” on the Service Order is provided with Internet routes advertised to the 2degrees Network by our international upstream transit providers and peers only. Intra country routes to the Internet are not included.
- 3.11. An IP Transit Service designated as “Blended” on the Service Order will be provided with both intra-country (i.e. Domestic) and international routes from our transit providers and peers.
- 3.12. Where an IP Transit service is not designated “Domestic” or “International” then it is assumed to be Blended.
- 3.13. Where the IP Transit Service is delivered into a data centre, 2degrees will terminate the IP Transit Service in a common area or meet-me room, irrespective of any 2degrees 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 location at which the IP Transit Service is terminated and the Customer’s equipment.
- 3.14. 2degrees 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.

4. Billing

- 4.1. The IP Transit 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 IP Transit 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) IP Transit Services connected to the 2degrees networks AS4826 and AS18037 are billed based on the larger of the amount of downloaded or uploaded data during the billing period; and
 - (ii) IP Transit Services connected to the 2degrees 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 IP Transit Service above the fixed speed. In particular:
 - (i) The IP Transit 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 IP Transit service (in Mbps) is above the Committed 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 2degrees. 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 2degrees.

- (ii) Where the Customer orders additional ports without also increasing the amount of IP Transit (in Mbps) or Committed Speed to match the total bandwidth supplied, the IP Transit 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 IP Transit Services.

5. Third party services

- 5.1. Where the IP Transit Service provided by 2degrees includes equipment or transmission services from a Supplier, additional charges may apply for:

- (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 2degrees

- 6.1. Customers may elect to use 2degrees supplied IP addresses which will be of type IPv4 and/or IPv6.
- 6.2. A single four (4) IPv4 subnet is provided at no charge for use between the 2degrees border router and the Customer router. Fees apply for any additional IPv4 addresses.
- 6.3. Any IP addresses allocated to the Customer by 2degrees remain the property of 2degrees and is not transferable.
- 6.4. The Customer's right to use the 2degrees supplied IP addresses ceases upon the termination of the agreement for supply of the Service, cancellation of the Service, or where 2degrees ceases to provide the IP Transit Service to the Customer.
- 6.5. 2degrees reserves the right to change any 2degrees 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 2degrees network availability or stability or to correct a fault. 2degrees will work with the Customer in order to minimize any disruption to the IP Transit Service during the change.
- 6.6. The Customer may request the reallocation of IP Addresses to an active IP Transit Service which is subject to 2degrees' 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 2degrees to fulfil the request.
- 6.7. In the event the Customer cancels the IP Transit Service to which the IP Addresses are attached, the IP Addresses may be allocated to the Services of other 2degrees customers.
- 6.8. Requests for more than 256 IP addresses are not generally available from 2degrees 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 2degrees is aware that the Customer has failed to make payment of any fee due and payable to the relevant Regional Internet

Registry, 2degrees 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. 2degrees Internet Express

- 8.1. 2degrees Internet Express (VIE) is an IP Transit 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 2degrees, from time to time;
 - (b) 100Mbps, 200 Mbps, 250Mbps and 500Mbps services are only available to eligible customers in limited 2degrees on-net and near-net buildings;
 - (c) 10Mbps and 40Mbps services are only available to eligible customers in limited 2degrees on-net buildings;
 - (d) Customer must supply their own router;
 - (e) BGP routing is not available;
 - (f) VIE may not be used in a redundant port arrangement; and
 - (g) 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 2degrees.
- 8.5. Where the Customer is in violation of clauses 8.2, 8.3 or 8.4, 2degrees may suspend or cancel a service on two (2) days written notice.

9. Route announcement, registration and filtering

- 9.1. The Customer must announce all prefixes for which the Customer wants to receive IP Traffic by way of BGP.
- 9.2. 2degrees will in all cases filter prefixes and AS Numbers it receives from the Customer.
- 9.3. The Customer must register all routes and downstream AS Numbers from which it wishes to receive traffic from 2degrees with the

2degrees support centre. 2degrees will update its own filters and advise its upstream providers and peers.

- 9.4. 2degrees may be required to update filters with some of its transit providers. 2degrees makes no guarantee that those providers will update their filters within the timeframe listed above.
- 9.5. 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.
- 9.6. Should 2degrees receive a complaint about the Customer's use of an Internet resource (such as IP block or AS number) 2degrees 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 2degrees to not permit a prefix announcement will not be considered a breach of any SLA or covenant of this agreement.
- 9.7. 2degrees will not supply public AS numbers to the Customer. The Customer should contact APNIC for allocation of such resources.

10. Services over copper

- 10.1. With respect to IP Transit 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 2degrees' 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.

11. DDoS Protection

- 11.1. If ordered by the Customer with their IP Transit Service in the Service Order, 2degrees must provide the Customer with a DDoS Protection Service in accordance with this clause 11 (**DDoS Protection Service**).
- 11.2. The DDoS Protection Service provides protection against DDoS events that, in the sole opinion of 2degrees, require mitigation using traffic scrubbing, filtering, black holing

or any other action in order to protect the 2degrees 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 2degrees DDoS detection system at all times. The Customer may use BGP routing protocols or any other means to direct Customer bound traffic to 2degrees DDoS mitigation devices for the duration of the attack only. The Customer may also contact the 2degrees support centre to request 2degrees DDoS Protect if an attack was not detected by 2degrees DDoS Detect. 2degrees will in its sole discretion determine the method of mitigation to be used against a DDoS attack including, but not limited to, 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 2degrees 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 2degrees mitigation system, 2degrees may black hole traffic or use other methods at its disposal to mitigate the attack.

11.3. Customers who have only procured DDoS Detect may request that 2degrees provide DDoS Protect for a period of up to 24 hours for an additional fee by contacting 2degrees support centre via telephone. At the end of the applicable 24 hour period, 2degrees will cease providing 2degrees DDoS Protect unless notified by the Customer to continue for a further 24 hour period for an additional fee.

11.4. 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 11.3 once during the term of their IP Transit Service,

after which that Customer must order a DDoS Protection Service.

11.5. 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 2degrees:

(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 2degrees may charge a fee for service as agreed by the Customer.

11.6. A Customer who orders a DDoS Protection Service is entitled to access online systems via a single user ID as provided by 2degrees which includes information regarding DDoS events. The Customer may request access for additional users for a fee.

11.7. Each order for a DDoS Protection Service may be applied only to one IP Transit Service (a single connection or an aggregated billing group of internet connections) provided by 2degrees under a Service Order. All IP addresses associated with that IP Transit 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.

11.8. With respect to the DDoS Protection Service, 2degrees is not liable and otherwise excludes all liability in negligence or otherwise (whether under this agreement, any other 2degrees agreement or under any 2degrees 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 2degrees; or

(c) any traffic to, or from the Customer's Service that may be delayed, dropped or otherwise affected.

12. Service Level Agreement

12.1. Subject to the terms of the Standard Terms and Conditions, this Service Schedule and any applicable Service Orders, 2degrees will provide the Services in accordance with the 2degrees SLA.