



Service Specific Terms and Conditions for Connectivity

1. Definitions

Access Circuit means the telecommunications link between the Service Provider Network and the Customer Network.

AUP means Acceptable Use Policy available on the Service Provider website.

Class of Service or COS means the matching of different types of traffic to create different classes of service. This enables the Core Network to decide which types of traffic are deemed critical and also those which are not. The applicable COS schema will be outlined on the Order Form and referenced in the SLA.

Contractual Delivery Date means the date confirmed to You, by the Service Provider via email or in writing, as the date on which the Service will be delivered.

Core Network or Backbone means the Service Provider's primary MPLS network which utilises IP-VPN technology that is broadly compliant with the architectural framework covered in the IETF RFC 2567. The Core Network will utilise high capacity, low latency links to transport Your MPLS/IP traffic.

CPE means Customer Premise Equipment. The CPE is a device owned and operated by the Service Provider in order to provide the Service.

Customer Network – Your Internet Connection, Ethernet and IP based local area and wide area networks, including cabling, firewalls, routers, bridges, switches, power supplies, or other devices determined to be part of, or integral to the network fabric. It is assumed the Customer Network will have a reliable power supply and a suitable operating environment.

Customer Site (Site) means any of Your physical locations or premises to which You wish the Service Provider to provide the Service.

Diverse POPs mean a Customer Site can be connected, using multiple Access Circuits to distinct POPs to achieve greater levels of resilience. Where Diverse POPs are provided, each POP is geographically diverse and shares no single point of failure.

DDOS Attack means Distributed Denial of Service Attack.

DSL means Digital Subscriber Line, which can be ADSL, VDSL or SDSL.

DTO means Diagnostic Test Officer;

eBGP means External Border Gateway Protocol Version 4 (BGP-4) defined in RFC 4271. BGP is used by the Service Provider in order to provide the Resilience or Failover capabilities of the Service.

Ethernet Access Circuit means an Access Circuit that uses Ethernet or Fibre technology.

Failover means the ability for the Service, in the event of a fault, to resume operation on an alternative Access Circuit or CPE. The nature and operation of any Failover mechanism will be set out in the Order Form.

Fault means a complete loss of connectivity, unable to send and receive traffic or the Service is severely inhibited.

Fully Meshed means the Service Provider can enable connectivity between all the Customer Sites, connected to the Service Provider Core Network in an any-to-any manner.

Hub and Spoke means the Service Provider can enable connectivity from all the Customer Sites, connected to the Service Provider Core Network back to a single nominated Customer Site.

Individual Service Commencement Date means the date the individual line in the MPLS WAN is made available for use by You.

International Leased Line means an MPLS-type service that connects the Customer Sites or Service Provider Network to third party networks outside of the British Isles.

Internet means the global data network comprising interconnected networks.

IP Address means the unique string of numbers that identifies an address on the Internet or Customer Network.

MPLS means Multi-Protocol Label Switching, a technology.

MPLS/IP Traffic means the data packets travelling the Core Network.

Network Node means a logical or physical point of presence on the Service Provider network.

Network Operator means the third-party network operator that the Service Provider uses to provide the Service;

Password means a password, code, PIN number, account number, smart card or other security device issued to You by the Service Provider;

POP means a location on the Core Network. The Service Provider operates a number of POPs in order to provide resilient services where required. Each POP is located in secure, resilient and fault-tolerant datacentre environment.

Pseudo Private Network means a private connection across the Core Network.

Planned Works means maintenance works undertaken by the Service Provider, from time to time, to ensure the uninterrupted and fault-free operation of the Service Provider Network. The procedure relating to Planned Works is detailed in the Service SLA.

Resilience means the type of redundancy option required by You. This typically means the Service can tolerate the failure or degradation of a single CPE or Access Circuit and still retain a level of service. The nature and operation of the Service Resilience will be set out in the Order Form.

Service means the services detailed in the Order Form.

Service Provider means TreeNet Ltd

Service Provider Datacentres means the datacentre facilities or datacentre environments owned or operated by the Service Provider.

Single POP means a distinct POP that forms part of the Core Network. When an Access Circuit is provisioned using a single POP it means that circuit forms a connection between the Customer Site and the POP.

SIP – Session Initiation Protocol, as defined in RFC3261“Recommended Operating Environment” – is the technical specification defined by the Service Provider that determines the Recommended Operating Environment, including the Customer Network and Internet Connection used by You with the Service. The SIP Service provides voice services using the IP Protocol.

SLA means the Service Level Agreement applicable to the Service.

VPN means a virtual private network within our MPLS Service.

Virtual Private Network means a private connection across the Service Provider's Core Network in segregated and private manner.

Wireless Equipment is the dish, radio or CPE used to provide Access Circuits using Microwave technologies.

1. Service Description – Enhanced Connectivity Solutions

- 1.1. The **Enhanced Connectivity Solutions** Service is a virtual private networking service for IP traffic. It provides a means to securely transfer data, voice and video traffic over a pseudo private network accessible only to You and those permitted by You.
- 1.2. **Enhanced Connectivity Solutions** can use carrier private circuits, DSL, Ethernet, Microwave Wireless or a combination thereof to connect the Customer Sites to a central, resilient Core Network operated by the Service Provider.
- 1.3. The Core Network features high capacity Backbone links with geographically resilient Network Nodes ensuring a robust and fault-tolerant network solution.
- 1.4. Each Customer Site is connected to the Core using one or more Access Circuits. Multiple Access Circuits can be used to provide resilience and failover capabilities.
- 1.5. The Service Provider will provide a secure, private network instance across the Core Network in order to provide connectivity between Customer Sites or between Customer Sites and the Service Providers' Datacentres.

2. Service Description – Internet Leased Line

- 3.1. The **Internet Leased Line** is an enterprise grade Internet solution. It provides a high capacity and robust means of connecting the Customer Site to the Internet.
- 3.2. **Internet Leased Line** uses carrier private circuits, DSL, Ethernet, Microwave Wireless or a combination thereof to connect the Customer Sites to a central, resilient Core Network operated by the Service Provider. The Core Network provides high capacity connectivity to the Internet.
- 3.3. The Core Network features high capacity backbone links with geographically resilient Network Nodes ensuring a robust and fault-tolerant network solution.
- 3.4. Each Customer Site is connected to the Core using one or more Network Connection. Multiple connections can be used to provide resilience and failover capabilities.
- 3.5. The Service Provider can provide You with both IPv4 and IPv6 address space (Subject to RIPE approval).

3. Technical Description – Internet Leased Line

4.1. Class of Service

- 4.1.1. Class of Service markings can be configured allowing for the differentiated treatment of identified traffic across the TreeNet Enterprise Internet Service.
- 4.1.2. The Service Provider supports the configuration of up to eight Classes of Service which are implemented to provide Class of Service performance targets as set out in

- the **Internet Leased Line** SLA.
- 4.1.3. COS is employed to categorise traffic using rules that then enable the network to define specific behaviours and priorities based upon how the IP packets are classified.

4.2. Routers

- 4.2.1. Each Customer Site will connect to the **Internet Leased Line** Service using one or more CPEs.
- 4.2.2. The CPE is owned and managed by the Service Provider.
- 4.2.3. CPEs are located at the Customer Site and securely connect to the Customer LAN to the Core.
- 4.2.4. Each CPE will have a 10Mbps, 100Mbps or 1Gbps Ethernet interface for connection to the Customer LAN.
- 4.2.5. Where You opt for the Enhanced Resilience options, the Service Provider may install multiple CPE routers at the Customer Site.

4.3. Connectivity Options

- 4.3.1. The following topologies are supported
- Single CPE connected to the Service Provider Core Network
 - Single CPE with multiple access links to the Service Provider Core Network
 - Dual CPEs with multiple access links to the Service Provider Core Network
- 4.3.2. Where multiple access links are employed, the CPE can be configured in Active/Passive or Active/Active operating mode.

4.4. IP Addressing

- 4.4.1. The Service Provider will provide You with IPv4 and IPv6 address resources.
- 4.4.2. In the event multiple IP addresses are allocated by the Service Provider, you may be required to provide justification for such an allocation.
- 4.4.3. The use of Service Provider IP addresses are subject to the Service Provider's AUP.
- 4.4.4. If You choose to use Your own IP address space, the Service Provider may consider the use of eBGP to announce the Customer IP networks or it may be possible for the Service Provider to announce the IP networks on Your behalf. If such a requirement exists, the detail, proposed method and any charges will be set out on the Order Form.

4. Technical Description – Enhanced Connectivity Solutions

5.1. Topology

- 5.1.1. Customer Sites can be linked in a number of ways to allow traffic flows between Customer Sites.
- 5.1.1.1 Fully Meshed provides any-to-any connectivity between Customer Sites.
- 5.1.1.2 Hub and spoke VPN provides a single hub ("head office") that has connections to the stub sites (remote sites)

5.2. Class of Service

- 5.2.1. Class of Service (COS) markings can be configured to allow for the differentiated treatment of identified traffic across the MPLS Service.
- 5.2.2. The Service Provider supports the configuration of COS to meet performance targets as set out in the **Enhanced Connectivity Solutions** SLA.
- 5.2.3. COS is employed to categorise traffic using rules that then enable the network to define specific behaviours and priorities based upon how the IP packets are classified.

5.3. Routers

- 5.3.1. Each Customer Site will connect to the **Enhanced Connectivity Solutions** Service using one or more CPEs.
- 5.3.2. The CPE is owned and managed by the Service Provider.
- 5.3.3. CPEs are located at the Customer Sites and securely connect to the Customer LAN to the MPLS Core.
- 5.3.4. Each CPE will have a 10Mbps, 100Mbps or 1Gbps Ethernet interface for connection to the Customer LAN.
- 5.3.5. Where You opt for the Enhanced Resilience options, the Service Provider may install multiple CPE routers at the Customer Site.

5.4. Connectivity Options

- 5.4.1. The following topologies are supported
- Single CPE connected to the Service Provider Core Network

- Single CPE with multiple access links to the Service Provider Core Network
- Dual CPEs with multiple access links to the Service Provider Core Network

- 5.4.2. Where multiple access links are employed, the CPE can be configured in Active/Passive or Active/Active operating mode.

5.5. IP Addressing

- 5.5.1. You can use both registered and unregistered addressing schemes on Your LANs.
- 5.5.2. Provided the addressing remains unique within each VPN, you can use an addressing scheme of Your own choosing.
- 5.5.3. In the case of overlapping VPNs all addresses must be unique, which may require the use of Network Address Translation (NAT) on some CPE devices to resolve local addressing issues.

5.6. International Connectivity

- 5.6.1. International Leased Lines may be used for connectivity to sites outside of the UK. These circuits will have specific Service Levels or other service related characteristics that will be defined relating to the specifics of any proposed solution.

5. Access Technologies

- 6.1. For **Enhanced Connectivity Solutions** and **Internet Leased Line** Ethernet Circuits, DSL circuits and Microwave Wireless will be deployed to facilitate connectivity between the Customer Site and the Core Network.

6.2. Ethernet

- 6.2.1. Ethernet Access Circuits will be either 10, 100 or 1000Mbps rate limited at increments to be agreed with You and specified in the Order.
- 6.2.2. The standard presentation will be a router port into which You will connect a 10/100/1000 Mbps Ethernet LAN cable.
- 6.2.3. Ethernet will use 1000Base-T (Copper) as standard, Fibre options (SX/LX) are available however may incur additional charges.
- 6.2.4. Ethernet Access Circuits are subject to the **Enhanced Connectivity Solutions** SLA.

6.3. DSL

- 6.3.1. DSL may be provided over a number of platforms and the Service Provider reserves the right to change the platform in line with developing technology.

6.4. Microwave Wireless

- 6.4.1. Microwave Wireless links will connect wirelessly to the Service Provide core network.
- 6.4.2. The Wireless Equipment may use licensed or license exempt spectrum, this determination is subject to the link budget, wireless conditions and the topography of the Customer Site(s). The operating mode and spectrum will be set out on the Order Form.
- 6.4.3. The standard presentation will be a router port into which You will connect a 10/100/1000 Mbps Ethernet LAN cable.
- 6.4.4. 1000Base-T (Copper) is provided as standard, Fibre options (SX/LX) are available however may incur additional charges
- 6.4.5. Where Wireless Equipment is to be installed externally on the Customer Site, you are required to seek the relevant permissions from the landlord, building owner or responsible party.
- 6.4.6. It is Your responsibility to ensure any wireless installation comprising of a dish or wireless equipment complies with the relevant planning laws and related legislation.
- 6.4.7. The Wireless Service is subject to the **Enhanced Connectivity Solutions** SLA.

6. Default Process

- 7.1. You will be billed for each line in the MPLS WAN on the Individual Service Commencement Date. This means circuits will be brought live before the whole WAN solution is complete and You will be invoiced for the individual circuits from the Individual Service Commencement Date.
- 7.2. The Service Provider will use reasonable endeavours to deliver the circuits before and as close to the date of the circuit with the longest lead time for delivery but specific dates cannot be guaranteed.

- 7.3. If, in the opinion of the Service Provider, the Service you have ordered requires a Project Initiation Document; the Service Provider will not provision any part of your Service until you have returned a signed copy of the Project Initiation Document.
- 7.4. Any disruption to Service that is caused by You or a third party is Your responsibility to resolve. The Service Provider will assist and advise You where possible and appropriate, however, additional Charges may be applicable. If in such circumstances, the Service cannot be restored You will be liable to pay the Service Provider any reasonable Charges to cancel the Service which will include all Charges that would otherwise have been payable by You during the Minimum Term or subsequent Renewal Term if applicable. The Service Provider shall not be obliged to refund any Charges paid in advance.
- 7.5. If Your Site is a building/structure from pre-2000, You may be requested to supply Your Asbestos Register on demand.

7. Backup Circuits

- 8.1. Where the Service Provider is supplying a failover circuit this will be billed from date of installation of that circuit not the date of the main circuit.
- 8.2. If the failover circuit is an ADSL Line and the Service Provider is supplying the PSTN, this PSTN will be billed from the date of installation of that PSTN line.
- 8.3. The Service Provider will use reasonable endeavours to deliver the failover circuit as close to the date of the circuit with the longest lead time for delivery but specific dates cannot be guaranteed.
- 8.4. Should You decide to purchase a backup service with a reduced bandwidth or with a higher contention rate You acknowledge that in the event of an outage You will not be able to run normal operations and business critical services may be impacted. It is Your responsibility to plan any disaster recovery process but the Service Provider can provide support to aid you with your DR plans upon request.

8. Restrictions on Service

9.1. Subject to Survey

- 9.1.1. All offers for the provision of the Service are made subject to survey.
- 9.1.2. On receipt of an Order, the Service Provider will carry out surveys and network capacity checks in order to validate its budgetary quotation and delivery timescale. In exceptional circumstances this may result in the Supplier's offer being modified or withdrawn.

9.2. Ethernet Access Circuits

- 9.2.1. Ethernet access services are only available in areas where the Service Provider has existing local access infrastructure.
- 9.2.2. There are additional generic limitations on Ethernet circuits that relate to physical distances that have to be taken into consideration when facilitating connections of this nature over large distances. Current technology will allow circuits to traverse a route distance of 80 kilometres or less to the nearest POP.

9.3. DSL

- 9.3.1. DSL access services are only available in areas where the Service Provider has existing local access infrastructure.
- 9.3.2. There are additional generic limitations on DSL circuits that relate to physical distances that have to be taken into consideration when facilitating connections of this nature over large distances.

9.4. Wireless

- 9.4.1. Wireless services are only available in areas where the Service Provider has existing local access infrastructure and the topology, link-budget and site-survey determines Wireless delivery is feasible.
- 9.4.2. The use of Wireless is at the discretion of the Service Provider.

9.5. Class of Service

- 9.5.1. For Services where You wish to deploy Class of Service in the solution, the Service Provider will administer rules relating to the maximum use of specific bandwidths per Class, these being specific to the type of Access Circuit, and speed of Access Circuit that is being deployed.
- 9.5.2. You are responsible for exercising appropriate control mechanisms such as call control on the specific traffic types so that only the designated amount of bandwidth is utilised over the Service.

- 9.5.3. The Service Provider is not liable for any Service Level failure due to Your failure to exercise such traffic controls.

9. Service

- 9.1. The Service Provider will notify You when it is ready to hand-over the Services to You and will commence delivery of the Services. You shall have five (5) days from the start of the Services (the "Review Period") in which to notify the Service Provider of any material non-conformity of the Services with the Agreement. In the event that You have not served a notice of material non-conformity within the Review Period, the Services shall be deemed to be accepted. If You serve a notice of material non-conformity in the Review Period then the Service Provider shall remedy the applicable defect in the Services as soon as reasonably possible and re-submit the applicable Service to You for further review. The Service Provider shall have the right, but not the obligation, to be present during the carrying out of any review of the Services.
- 9.2. The Service Provider shall provide the Service materially in accordance with the Agreement, including the applicable Product Description and the applicable Service Level Agreement.
- 9.3. The Service Provider may from time to time vary the technical and/or operational procedures for use of the Service provided that it will not detract from or impair its performance or operation.
- 9.4. You must at all times use the Services in accordance with the third-party suppliers acceptable use policy and You agree that the third party supplier may monitor compliance with this policy.
- 9.5. The Service Provider may allocate You a Password to enable You to use the Service. You shall keep such Password safe and confidential and notify the Service Provider as soon as reasonably practicable (but in no more than 1 working day) if any third party becomes aware of it. You must ensure that no party will copy or attempt to copy any smart card or other security device. The Service Provider reserves the right to change the Password without notice and if it has reason to believe You are knowingly in breach of this Clause 10.5 to invalidate such Password and/or to terminate the Agreement.
- 9.6. The Service Provider may agree to a reasonable request by You to alter a Password (in particular where there is an actual or potential threat of a security breach). You may be required to pay a charge for such alteration.
- 9.7. The Service Provider reserves the right (but shall not be obliged) to refuse to provide a Service where accurate Passwords are not used.

10. Changes, Cancellations & Circuit Handover

- 10.1. If You cancel a Service prior to the Service Commencement Date and after You have been provided with a Contractual Delivery Date, you will incur a cancellation fee of £2500 in addition to any construction Charges (such construction Charges to be communicated to You at time of cancellation request).
- 10.2. With the exception of when Excess Construction Charges are applied as detailed in clause 11.3 below, if a service is cancelled or amended by You during the provision stage of the service, you shall reimburse the Service Provider for any changes levied by the tail circuit supplier.
- 10.3. If Excess Construction Charges are applied during the provision stage by the tail circuit supplier, then you will be given 14 working days to accept or decline the charges. If You decline the charges within the set time, then the service will be cancelled and the Excess Construction Charges will not be applied.
- 10.4. The Service Provider shall attempt to handover the primary and backup circuits to You within one week of the primary circuit installation. Should You fail to attend the handover, the Service Provider shall deem the circuit handed over and at this point, the SLA for the services shall be invalid.
- 10.5. You may terminate the Agreement by giving the Service Provider 90 days' written notice at any time during the last 90 days of the Agreement Term or any subsequent Renewal Term, as appropriate.
- 10.6. On termination of the Agreement You must allow the Service Provider promptly to remove the Equipment. If You delay prompt removal of the Equipment following termination of the Agreement, the Service Provider shall, be entitled to charge You for Equipment. If not returned within 25 days and You shall

pay such charges together with any additional costs and expenses caused to the Service Provider by such delay.

- 10.7. The Service Provider may upon 14 days' prior written notice, otherwise modify the Service, or part of a service, in the event that the Service Provider's suppliers' services are altered so as to affect the provision by the Service Provider of the Service or there is a technical or regulatory reason to do so, unless such modification is due to regulatory reasons that do not allow 14 days' prior written notice, in which case reasonable endeavours to provide notification as early as possible shall be used.

11. Charges

- 11.1. Charges for the Service are as agreed on the Order Form and we will charge you fair and reasonable costs for your usage (and any reasonable administration costs) in excess of your Service usage cap.
- 11.2. For usage-based services only, the Service Provider may increase or implement new Charges in line with the tail circuit provider and RPI increases applied to the Service Provider by suppliers will also be passed on, only upon 25 days' prior written notice to You.
- 11.3. In addition to clause 16.7 of the Standard Terms and Conditions, any early termination charges levied on the Service Provider by suppliers relating to terminated services within the Minimum Period or subsequent Renewal Terms and any other demonstrable charges from the tail gate supplier up to a limit of £1000 (one thousand pounds sterling), shall be passed on to You.
- 11.4. If You report a fault that requires a DTO to test a line and such test subsequently proves that the fault is beyond the Service Provider's and the Network Operator's domain, You will be liable to pay a £100 per fault charge to the Service Provider. Repeated reports against the same Service or fault with the same outcome will trigger repeated charges.

12. Service Management and Reporting

- 12.1. The Service Provider shall provide service management for each Service as set out below:
- 12.1.1. Investigating unplanned Service outages;
 - 12.1.2. Producing major incident reports;
 - 12.1.3. Identifying fault trends and initiating corrective action;
 - 12.1.4. Managing Planned Works;
 - 12.1.5. Managing Service queries and requests from You;

13. Acceptable Use Policy (AUP)

- 13.1. The AUP is located on the Service Provider Website.

14. Fault Management

- 14.1. Full details of the fault reporting process and contact names and numbers are set out in the Customer Service Plan (CSP).

By signing below, you confirm that you have read these Service Specific Terms and Conditions for Connectivity and agree to be bound by them, together with the TreeNet Standard Terms and Conditions set out in, or deemed to form part of this Agreement and the Charges detailed within the Order Form.

Customer Signature:	
Printed Name:	
Position:	
Company:	
Date:	

