

# Schedule 2f

Additional terms for internet services

## 1. SERVICE DESCRIPTION

Interoute Internet Services comprises of the provision and supply of connectivity to the Internet via the Interoute IP Network.

## 2. DEFINITIONS

“**ADSL**” refers to Asymmetric Digital Subscriber Line as defined in the ITU-T G series specifications for DMT-based line coding.

“**Annual Review Period**” means twelve (12) months after the Ready For Service Date and every anniversary of the Ready for Service date thereafter.

“**Billing Model**” means the specified Customer billing mechanism that is mutually agreed with Interoute for Customer-generated traffic exchanged over the Interoute IP Network via the Customer Port as detailed in the Purchase Order

“**Burst**” means the ability of a Customer to increase the rate of transmission of Traffic above the Committed Data Rate.

“**Committed Data Rate**” means the constant rate specified in the Purchase Order up to which Interoute agrees to transmit the Customer’s IP Traffic.

“**Co-location**” means the provision and maintenance of space within a facility provided by Interoute for the sole purpose of accommodating Customer provided and operated telecommunications equipment. Co-location Services are provided on the terms and conditions contained in Interoute Additional Terms for Co-location Services.

“**Customer Port**” means the provision of a physical connection into the Interoute’s IP network that is dedicated solely for the use of the Customer and exchange of Customer traffic.

“**Denial of Service (DoS)**” means a form of electronic attack involving multiple computers, which send repeated requests to a host generating false traffic and rendering it inaccessible to valid users.

“**DNS**” (Domain Name System) means an Internet Service that translates Customer specified Domain Names to their IP addresses.

“**Fault**” means a defect, failure or impairment in the Service, which causes a degradation or interruption in the provision of Service.

“**Interoute Demarcation Point**” means the edge of the Interoute IP Network that signifies the physical boundary between the Interoute owned and operated IP network and the equipment owned and provided by the Customer, not including the provision of any Third Party Local Access connections. For sites where managed CPE is provided, the physical boundary between the Interoute IP Network and the Customer’s equipment is the interface on the CPE. For Sites where no managed CPE is provided, the Interoute Demarcation Point is the Customer Port.

“**Internet Service**” and “**Service**” means the provision and supply of connectivity to the Internet via the Interoute IP Network.

“**Internet Exchange Points**” and “**Public and Private Exchange Points**” mean facilities that exist specifically for the exchange of Internet IP Traffic through peering arrangements with other Internet service providers.

“**Interoute IP Network**” means the Interoute owned Pan-European network equipment monitored and managed by the Interoute Network Management Systems for the purpose of transporting customer IP Traffic.

“**Interoute Core IP Node**” means a physical facility that is used to accommodate Interoute IP Network equipment and the various Interoute owned IP routing and switching equipment that comprise the Interoute IP Network.

“**Local Access Charges**” means the Local Access non-recurring and Local Access recurring charges as charged by Interoute’s Third Party Local Access provider.

“**Managed CPE Firewall**” means an optional feature of the Internet Access Services ordered on the applicable Purchase Order comprising Internet Access and a Managed Firewall Service.

“**Managed Firewall Equipment**” shall mean the equipment, systems, cabling and facilities provided by Interoute in order to make available the Managed Firewall Service to the Customer.

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**“Managed Firewall Service”** means the optional feature of the Internet Service for the supply and operation of Managed Firewall Equipment and Services and any corresponding Licensed Software and implementation of Customer’s firewall policy within an Interoute co location facility.

**“Network Management System”** means Interoute’s network integrated fault management system.

**“Packet Delivery”** means a sampled measure, expressed as a percentage , of the number of IP packets successfully received at a designated Interoute Core IP Node on the Interoute IP Network.

**“Provider Aggregatable Address Space (PA-addresses)”** are Internet Protocol addresses assigned by Regional Internet Registries directly to an Internet Service Provider which can be aggregated into a single route advertisement

**“Provider Independent Address Space (PI-addresses)”** are Internet Protocol addresses assigned by Regional Internet Registries directly to an end-user organization, without going through an Internet Service Provider

**“Protected”** in the context of a local access private circuit or Interoute Core IP POP means a service configured on a local access private circuit and/or Interoute Core IP POP that has sufficient means of switching to either an alternate port or path in order to maintain or restore the service in the event of a service interruption for the Service.

**“RIPE”** means Réseaux IP Européens, which is a collaborative forum open to all parties interested in wide area IP networks. The objective of RIPE is to ensure the administrative and technical co-ordination necessary to enable the operation of the Internet within the RIPE region.

**“Round Trip Packet Delay”** means a sampled measure of the time taken to transmit and receive at the same Interoute Core IP Node an IP packet of a defined size (a “Ping Packet”) between any two designated Interoute Core IP Nodes on the Interoute IP Network.

**“SDSL”** refers to Symmetrical Digital Subscriber Line also known as SHDSL and defined in ITU-T G.991.2

**“Third Party Local Access”, “Local Access” “Leased Lines”, “Private Circuits” and “Access”** means short haul physical connections (including any DSL local access connection and patching cross connects/ cabling), that are provisioned between the Customer’s premises and the nearest feasible Interoute Point of Presence and are based on either TDM, Ethernet, ADSL or SDSL technology. Third Party Local Access connections, not being under the direct control and ownership of Interoute, are not deemed part of the Interoute IP Network.

**“Traffic”** means all IP packets that are transmitted and received at the Customer Port.

Any other capitalised terms have the meanings set out in Schedule 1.

### 3. INTERNET SERVICE TERMS

The following terms and conditions shall apply when Interoute provides Internet Services from its own network to the Customer.

### 4. CHARGES

#### 4.1. Charges payable by the Customer

- a. Charges for the Internet Services shall comprise an Installation Charge and a Monthly Charge.
- b. The billable amount of traffic exchanged with the Interoute IP Network via the Customer port is calculated in accordance with the Billing Model specified in the Purchase Order.
- c. If the Customer commits to a Committed Date Rate Billing Model (as detailed on the Purchase Order) a recurring fixed Monthly Charge based on such Committed Data

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Rate plus Burst Charges (where applicable) billed on a per Mb (or part thereof) usage rate.

- d. Unless otherwise agreed between the Parties in the Purchase Order, Charges for the Internet Services and any applicable cancellation charges will be invoiced in accordance with the terms specified in Schedule 1 for the amounts detailed in the Purchase Order or Change Order.
- e. Burst capacity can not exceed the physical port size set out in the Purchase Order. Charges for Burst traffic are not included in the recurring Monthly Charge.

## 5. SERVICE CREDITS

Interoute will provide the Customer with service credits for the failure to meet the following Service Levels:

- a. Service Installation
- b. Service Availability
- c. Packet Delivery
- d. Round Trip Packet Delay

### 5.1. Service Installation

- a. Where Third Party Local Access is required for a particular Site in relation to the provision of Third Party Local Access, Customer acknowledges and agrees that delivery of the Service to such a Site cannot be guaranteed and shall be subject to the Third Party Local Access provider being able to connect to the Site. Execution by Customer and Interoute of a Purchase Order does not constitute any guarantee that Interoute will be able to deliver the Services to all the Sites.
- b. If Interoute fails to meet the Customer Committed Date, If only part of an order is delayed, valid service credits will be payable only in respect of those Service elements that are not delivered by the Customer Committed Date.
- c. Service credits will be calculated as follows:

Number of full Working Days by which Interoute fails to meet Customer Committed Date for Service:	Service credits as % of Installation Charge:
1 to 5 days	10%
6 to 10 days	20%
11 to 20 days	30%
> 21 days	50%

### 5.2. Service Availability

- a. Service Availability means ability to exchange IP Traffic between the assigned Interoute Demarcation Point and the directly connected Interoute Core IP Node on a 24 hours basis (up to the Committed Data Rate where applicable), as measured over a Monthly Review Period, and is based on the number of minutes that exchange was not available as determined by Interoute based on the conditions of "Unavailability" stated below.

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- b. Any delays to, interference with, loss or degradation of service resulting directly or indirectly from the following events will not be included in the calculations of unavailability:
- i. Planned Outage events,
  - ii. Access to any Customer Premise Equipment was denied,
  - iii. Incompatibility or failure of Customer Equipment, facilities or applications, or
  - iv. Any act or omission of the Customer
- c. Target Service Availability is dependant on the method of access to the Interoute IP Network and is defined as follows:

Connection type used when connecting to the Interoute IP Network	Target Service Availability
Protected POP (no local access circuit)	99.99%
Unprotected POP (no local access circuit)	99.5%
Single Private Circuit Access to POP (Leased Lines, Ethernet or Dark Fibre)	99.5%
Dual Private Circuit Access to POP (Leased line, Ethernet or Dark Fibre)	99.95%
Single Local Access Circuit to POP (Leased Lines, Ethernet or Dark Fibre) with ISDN or DSL backup	99.90%
XDSL Local Access to POP (including ADSL / SDSL)	98.5%

- d. For customer locations where Dual Private Circuits or Resilient Dual Access is employed, the Target Service Availability is based upon at least one of the Circuits being operational and thereby making the site available.
- e. Percentage Service Availability is calculated per Monthly Review Period using the following formula:

$$P = \frac{(H - U)}{H} \times 100$$

Where:

- P is the percentage availability;
- U is the total amount of minutes a Customer Site during that Monthly Review Period for which the Service was unavailable;
- H is the total number of minutes in that Monthly Review Period;

### 5.3. Service Availability Credits

Where Service Availability falls below target during any Monthly Review Period, the Customer will be entitled to Service credits as follows:

Unavailability below target	Duration	Service credits as % of Monthly Recurring Charge:
≤ 0.25% below target		5%
≤ 0.75% below target		10%
≤ 1.5% below target		15%
≤ 2.5% below target		20%

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≤ 3.5% below target	25%
> 3.5% below target	30%

## 5.4. Packet Delivery

- Target Packet Delivery is >99.9% as calculated and averaged over all routes between Interoute Core IP Nodes during a Monthly Review Period.
- Average Packet Delivery is calculated monthly using the following formula:

$$T_{av} = \frac{\sum R_i}{\sum S_i} \times 100$$

Where:

- $T_{av}$  the average Packet Delivery.
- $R_i$  the total number of IP packets received by each Interoute Core IP Node from an originating Interoute Core IP Node; and
- $S_i$  the total number of IP packets sent from the originating Interoute Core IP Node to each Interoute Core IP Node.
- Where average Packet Delivery falls below 99.9% during any Monthly Review Period, the Customer will be entitled to service credits as follows:

Packet Delivery during Monthly Review Period below the target packet delivery of 99.9%	Service credits as % of Monthly Recurring Charge:
≤1%	1%
≤2%	2%
≤3%	3%
>3%	4%

## 5.5. Round Trip Packet Delay

The Target Round Trip Packet Delay (RTD) SLA is based upon the average RTD measured between Interoute Core IP Nodes over a monthly review period as detailed in the table below. RTD is measured every 5 minutes on a per Interoute Core IP Nodes basis with the results being reported on the Interoute Hub.

Measurement Group	CEE	ME	Nordics	SE	USA	WE
CEE	30	175	50	40	125	35
ME		N/A	180	175	215	175
Nordics			20	55	125	35
SE				25	115	35
USA					10	100
WE						25

The country groups are detailed below:

**CEE Central & Eastern Europe**

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Czech Republic, Hungary, Poland, Romania, Slovakia, Bulgaria;

## **WE Western Europe**

United Kingdom, France, Netherlands, Belgium, Germany, Switzerland, Austria;

## **SE Spain & Southern Europe**

Italy, Spain;

## **ME Middle East**

UAE Dubai;

## **Nordics**

Denmark, Sweden

## **USA**

New York & Washington DC

Where average Round Trip Packet Delay is exceeded during any Monthly Review Period, the Customer will be entitled to a service credit equivalent to 5% of the Monthly Recurring Charge for the relevant month under consideration.

### **5.6. Exclusions to Payment of Service Credits**

Service credits will not be payable by Interoute to the Customer in all cases detailed in Schedule 1 and in the following cases:

- a. DNS issues outside the direct control of Interoute. For instance, in all cases in which a domain is not managed by Interoute on its own DNS servers.
- b. Interoute does not guarantee that the Customer will be able to Burst at any given time and the all Burst Traffic is specifically excluded from the service level calculations.
- c. Customer requests to terminate or suspend access to the Managed CPE Firewall Service

Furthermore, in respect of any Monthly Review Period the total amount of any service credit payable in relation to an SLA breach shall not exceed 50% of the Monthly Recurring Charge for the affected Service.

Installation service credits do not apply where Access circuits needed for the Service are not provided and maintained by Interoute. In cases where Access circuits need to be sourced by Interoute from a third party, the Ready For Service Date is subject to access circuit delivery lead-times specified by the third party supplier.

### **6. SERVICE CANCELLATION**

In addition to the early cancellation provisions in Clause 6 to Schedule 1 "Interoute standard terms and conditions" of the Agreement, if all or part of the Service is cancelled prior to the Ready For Service Date, the Customer will be liable for a percentage of the Service Installation Charge, according to the following schedule:

<b>Number of Working Days Before Ready For Service Date</b>	<b>Customer liability as % of Installation Charge</b>
0 to 1 days	100%
2 to 5 days	90%
6 to 10 days	70%
11 to 20 days	50%

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21 to 30 days	25%
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## 7. FAULT REPORTING AND MANAGEMENT

### 7.1. Fault Handling

- a. Any suspected faults should be reported to the Interoute Customer Service Centre using the procedures detailed in the Service Handover Document to be provided on the Ready For Service Date. When reporting a fault, the Customer should identify the affected Service and provide details of the fault.

### 7.2. Time to Repair

- a. Interoute aims to resolve faults causing loss of Service within four (4) hours, provided access to the affected Customer Site, if required, is available. Interoute will provide the Customer with progress updates every two (2) hours, unless otherwise agreed.
- b. Where the fault arises from any Third Party Local Access, Interoute shall endeavour to manage the resolution of the fault by the Third Party Local Access provider as soon as reasonably practicable.

### 7.3. Fault Duration

- a. All faults recorded by the Network Management System will be reconciled against the corresponding fault ticket raised by the Customer Service Centre. The exact fault duration will be calculated as the elapsed time between the fault being reported to the Customer Service Centre and the time when Service is restored.

### 7.4. Planned Outages

- a. Planned Outages may be required on the Interoute IP Network and the Customer Port, including associated hardware and/or software for scheduled network maintenance and upgrade activities. Save in the case of emergency, Interoute will effect such outages in accordance with the Operation and Maintenance clause in Schedule 1

## 8. DOMAIN NAME SERVICES

### 8.1. As an additional service, Interoute provides Domain Name Services that provide the following service:

- a. The hosting of customer domains on Interoute's DNS.
- b. Interoute Domain Manager, which is a tool that customers can use to perform the following functions with respect to their domains:.
- c. Purchase a domain name that is to be hosted by Interoute.
- d. Transfer a domain name to / from Interoute's hosting servers
- e. Administer a domain that is hosted by Interoute

### 8.2. Customers may request Interoute to perform any of the services that are available on the Interoute Domain Manager, however, Interoute at its discretion may levy reasonable additional charges on the Customer.

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- 8.3. The Interoute Domain Name Services are provided without any guarantee or service level agreement.
- 8.4. It is the customers responsibility to ensure that the information and data associated with the domains that are hosted by Interoute is relevant and current.
- 8.5. Interoute has no control over the availability of domain names and accordingly accepts no responsibility for the availability of any domain name. If any domain name is or becomes unavailable through a request from any domain name registration authority, the Customer shall take all steps to relinquish the relevant domain name or otherwise to abide by the order of such authority. Interoute shall be entitled to take all appropriate steps to achieve the same.

## 9. NETWORK NUMBER

- 9.1. Pursuant to the Purchase Order, IP addresses will be allocated as per the Customer's needs, in strict adherence to RIPE guidelines available at [www.ripe.net](http://www.ripe.net) and general accepted industry good practice
- 9.2. Interoute will route existing Provider Independent IP addresses that were previously assigned to the Customer only if those addresses were assigned to the Customer directly and not through any other Internet Service Provider. The Customer is responsible for ensuring that the criteria for their Provider Independent IP address assignment is maintained and valid. Interoute does not guarantee that the customer assignment of Provider Independent IP addresses will be routable on any part of the Internet.
- 9.3. Interoute shall assign new or additional Provider Aggregatable IP addresses as requested by the Customer upon being provided with satisfactory documentation justifying the need for those addresses. In certain circumstances it maybe necessary for IP addresses to be approved by the relevant authority i.e. RIPE and in such cases Interoute shall not be responsible for any decision to be made by the relevant authority.
- 9.4. When Interoute assigns Provider Aggregatable address space to the Customer, those addresses are assigned only for the duration of the Service and become invalid at such a time as Interoute no longer provides the Service to the Customer. A temporary extension (usually thirty (30) days from the date of Service termination) may be made at Interoute's sole discretion. After termination or after such extension period (if any) those addresses may be reassigned to other customers by Interoute. If the Customer wishes to apply for addresses that will subsist beyond the duration of the Service, it must do so directly to the relevant authority. Any decision by the relevant authority or by another Internet Service Provider relating to IP addresses is the responsibility of that party and Interoute accepts no responsibility for any such decision.
- 9.5. In respect of any actions taken by Interoute pursuant to this paragraph 9, Interoute at its discretion may levy reasonable additional charges on the Customer.
- 9.6. All services to be provided by Interoute pursuant to this paragraph are provided expressly without any guarantee, service level agreement, or undertaking as to availability and timeliness of response.

## 10. ANCILLARY SERVICES

- 10.1. In addition, Interoute provides the following ancillary services:
  - a. **Backup MX**

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- i. In the event of a customer email service failure, customers email is stored on Interoute's Back up MX servers for a period of up to 5 days
    - ii. Email that is backed up on the Interoute Backup MX servers will be sent to the customers email server when it is available
  - b. **Mail Relay**
    - i. Enables customers to send outgoing email via Interoute's Mail Relay servers, which will then forward each email to its destination
  - c. **Automated Denial of Service Response**
    - i. A service feature to help customers mitigate the symptoms of a denial – of – service (DoS) attack
    - ii. The customer can signal to the Interoute IP Network using a specific BGP4 community attribute requesting all traffic destined to a specific host is discarded within the Interoute IP Network before it reaches the customers CPE
    - iii. This service is designed to protect the Customer and the Customer's end users from DoS attacks. However does not warrant that it shall withstand these attacks on all occasions. Interoute reserve the right to "Black Hole" any of the Customer traffic as required to protect Interoute's network as a whole

10.2. Ancillary Services are provided without any guarantee or service level agreement

## 11. HISTORICAL ARCHIVE AND BACK-UP

While Interoute backs up its servers as a regular part of its internal systems administration, Interoute does not guarantee any storage or backup of Customer data.

## 12. RESPONSIBILITY OF CUSTOMER EQUIPMENT AND ASSOCIATED SOFTWARE

- a. Customer provided equipment and associated software-based applications and operating systems may be accommodated within Co-location premises provided by Interoute on Interoute's Additional Terms for Co-location.
- b. Customer equipment connecting to Interoute's Internet Services must be a device that is operating at the Network Layer of the Open Systems Interconnection (OSI) / Internet Layer of the Internet Protocol Suite.
- c. Customer equipment operating at Data Link Layer (OSI) / Link Layer (Internet Protocol Suite) must not be directly connected the Interoute Internet Service.

## 13. Managed CPE Firewall

13.1 Where Managed CPE Firewall is ordered on the Purchase Order the Customer shall, prior to the commencement of the Service, provide Interoute with a copy of its firewall policy and complete a firewall policy form supplied by Interoute from time to time. Customer undertakes to keep Interoute informed of its most current firewall policy and to promptly notify Interoute of any changes to the firewall policy. In the event that Customer requires changes to the configuration of Managed CPE Firewall (including the firewall policy) it shall notify Interoute in writing in accordance with the change management procedure (as notified by Interoute to Customer from time to time). Customer may request up to two (2) firewall related rule changes

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per calendar month free of charge. Interoute shall charge Customer for any additional changes.

- 13.2 The Customer acknowledges and accepts that Interoute shall not be responsible or liable for any security breach or failure resulting from the Customer's firewall policy and Interoute shall not be obliged to supply, advise on or comply with the Customer's firewall policy. Customer acknowledges that it has assessed for itself the suitability of the Managed CPE Firewall Service for its requirements based on the firewall policy which the Customer owns and maintains at all material times. Interoute does not warrant that the Managed CPE Firewall Service will meet such requirements or that the Managed CPE Firewall Service will operate in the particular circumstances in which it is used by the Customer or that any use will be uninterrupted or error free.
- 13.3 In the event of a material hardware failure affecting the Managed Firewall Equipment, Interoute shall endeavour to replace such equipment within two (2) working days from the receipt by Interoute of the notification of equipment failure from the Customer. Such replacement shall be free of charge provided Customer notifies and returns to Interoute the original Managed Firewall Equipment within two (2) weeks from such notification.

## 14. **INDEMNITY**

The Customer shall indemnify Interoute from and against any losses, or expenses incurred by Interoute caused by, or in any way connected with the unauthorised use of the Managed Firewall Service by the Customer or any third party.