

Schedule 2d

additional terms for the lease of dark fibre

1. SERVICE DESCRIPTION

The Interoute Dark Fibre Service ("Service") will comprise of the lease and maintenance of Dark Fibre between fixed points in Europe.

1.1. DEFINITIONS AND INTERPRETATION

In these Additional Terms

"Acceptance Tests" means the tests conducted on Dark Fibre as described in Clause 2 and Appendix 2.

"Authorisations" means all material and applicable authorisations, leases, licences, easements, rights of way, franchises, approvals, permits, orders, consents and other rights required for Interoute to operate and to maintain the Interoute Network and to provide Dark Fibre to the Customer.

"Customer System" means the telecommunications infrastructure, including cables and equipment owned or operated by the Customer or any of its Affiliates.

"Dark Fibre" means the dark fibre pairs identified in the Purchase Order and delivered by Interoute pursuant to Clause 2 and in respect of which Interoute grants to Customer the rights set out in these Additional Terms.

"Demarcation Points" means each demarcation point within optical distribution frames owned by Interoute, its agent or the Customer at a POP at which Customer shall have access to the Dark Fibre as illustrated in Appendix 2 and identified in the Purchase

Order Form or at such other place or places as may be agreed between the Parties.

"Interface Points" means the ingress and egress connection to the Dark Fibre and those intermediate points of breakout more commonly arising from amplification or regeneration sites.

"Installation Fee" means the non-recurring charge attributable to connecting the customer in an on-net building on the Interoute Network.

"Interoute Network" means that part of the end to end connection between the Customer sites that is carried on Interoute-owned network or carried by Third Party Local Access for the purposes of extending the reach of the service.

"Lease" means lease(s) of the Dark Fibre granted by Interoute to the Customer under the terms and conditions of the Agreement.

"Lease Charge" means the charges associated with the lease of Dark Fibre for the Lease Term as set out in the Purchase Order. **"Lease Term"** means the term commencing on the Ready For Service Date.

"Maintenance Services" means the maintenance services to be provided by Interoute pursuant to Clause 4.

"Ready For Service Date" means, in respect of the Dark Fibre or any particular Section the date at which the Acceptance Tests have been successfully completed in respect of such Section as evidenced in the Service Handover Document in respect thereof and (if applicable) all snagging items have been remedied in accordance with Clause 2.7 of this Schedule. or deemed acceptance in accordance to clause 2.8 of this Schedule.

"Section" means those portions of Dark Fibre between successive Interface Points described in the Purchase Order.

"Specifications" means the specification of the Dark Fibre as set out in Appendix 3.

2. GRANT OF LEASE

2.1. The Customer may from time to time place orders to lease Dark Fibre from Interoute in accordance with clause 2 of Schedule 1.

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- 2.2. Subject to the terms and conditions of the Agreement, Interoute grants to the Customer the Lease(s) with effect from Ready for Service Date and continuing for the Lease Term, unless this Agreement is terminated earlier under the terms of the Agreement, in which event the Lease shall terminate automatically.
 - 2.3. Interoute shall ensure that Acceptance Tests are conducted in respect of the Dark Fibre and that the Acceptance Tests shall be completed prior to the delivery of such Dark Fibre.
 - 2.4. On completion of the Acceptance Tests in respect of the Dark Fibre, Interoute shall deliver to Customer a Service Handover Document on behalf of Interoute together with a copy of the results of the Acceptance Tests.
 - 2.5. Customer shall within five (5) Working Days following the date of the receipt of the Service Handover Document in accordance with Clause 2. 4, either:
 - a. confirm to Interoute its acceptance of the Dark Fibre by its affirmation of the Service Handover Document and indicating any "snagging items" (being items which do not materially affect the use of the Dark Fibre by Customer) identified during Acceptance Testing. Subject to clause 2.8, the date of affirmation of the Service Handover Document shall be the Ready For Service Date; or
 - b. notify Interoute of any material deviation or non compliance of the Dark Fibre with the Specification and provide to Interoute, together with such notice, the results of the testing conducted evidencing such material deviation or non compliance.
 - 2.6. In the event that Customer shall notify Interoute:
 - a. of acceptance of the Dark Fibre in accordance with Clause 2.5(a) Interoute agrees to perform such Outages as it deems to be reasonably required to remedy such snagging items or defects as are notified to it as soon as reasonably possible;
 - b. of non acceptance of the Dark Fibre in accordance with Clause 2.5(b) Interoute agrees to perform good faith efforts to provide Dark Fibre to Specification in Appendix 2 and upon completion of such Outages the provisions of Clause 2.3 to 2.7 shall apply.
 - 2.7. In the event that any snagging, deviation or non-compliance with the Specifications notified to Interoute in accordance with Clause 2.5 (a) or (b) shall be attributable to the Customer System or otherwise due to the act or omission of Customer, Interoute shall be entitled to invoice Customer for any costs reasonably incurred in investigating and remedying such snagging deviation or non-compliance in accordance with Clause 2.5, such invoice being payable in accordance with Clause 3 of Schedule 1.
 - 2.8. In the event that Customer shall fail within the timescale set out in Clause 2.5 to deliver a notice to Interoute, Customer shall be deemed to have accepted the Dark Fibre The date of notification by Interoute shall thereafter be the Ready For Service Date of the Section to which it relates.
- 3. ACCESS AND AUTHORISATIONS**
- 3.1. Interoute shall obtain all required Authorisations with respect to the Purchase Order prior to the Customer Committed Date and shall maintain or renew all such Authorisations throughout the Term.

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- 3.2. If any Authorisations are modified or terminated, and the loss of such Authorisations threatens to cause or does cause material financial harm to Interoute, or prevents or materially interferes with Interoute's control, possession and/or use of the Interoute Network or its ability to provide the Dark Fibre, Interoute shall have the option to:
- a. at no additional charge to the Customer to provide Customer with comparable dark fibres to the Dark Fibre on alternate portions of Interoute's then existing Interoute Network; or
 - b. terminate Customer's Purchase Order and reimburse Customer a pro rata share of the Lease Charge paid by Customer in respect of the unexpired Term of the Purchase Order without further obligation or liability to Customer.

The foregoing will be Interoute's sole and exclusive liability and Customer's sole and exclusive remedy with respect to the loss of Authorisations.

- 3.3. If Interoute is required by any third party to relocate any Section or Sections of its Interoute Network, Interoute will provide Customer at least sixty (60) days prior written notice of any relocation unless prevented from doing so by the timing of the relocation.

4. OPERATION AND MAINTENANCE

- 4.1. Interoute shall use reasonable efforts to cause the Interoute Network to be maintained in efficient working order and in accordance with industry standards.
- 4.2. Should any condition exist that may impair the integrity of the Interoute Network, Interoute shall initiate and co-ordinate planned maintenance, which may include disconnection of all or any part of the Dark Fibre. Interoute shall, to the extent reasonably practicable, give the Customer ten (10) days notice in writing (or such shorter period as may be necessary), prior to initiating a planned maintenance operation, of the timing and scope of such planned maintenance operation..
- 4.3. Customer may not, without the express written consent of Interoute, perform any repairs or maintenance to the Interoute Network, or contract with any third party to perform any repairs or maintenance to the Interoute Network.
- 4.4. If all or part of the Dark Fibre requires restoration, replacement or repair by reason of an act or omission of Customer, its employees, agents, or contractors, such repair, replacement and/or restoration may be made by Interoute, at Customer's sole expense, in accordance with Interoute's then current time and materials rates plus 20% plus applicable taxes.

5. SERVICE LEVEL GUARANTEES

- 5.1. Interoute shall provide the Dark Fibre in accordance with the Service Level Targets set out in Appendix 4.

6. USE OF THE DARK FIBRE

- 6.1. Subject to supervision by Interoute, the Customer shall have the right to access the Dark Fibre at the Demarcation Points. Customer will use the Dark Fibre in full compliance with all applicable laws, rules and regulations and all applicable franchises, rights of way, leases, licences, franchises and contracts and other obligations to third parties with respect to the Interoute Network or Dark Fibre. At Customer's sole cost and expense, Customer will obtain and maintain in effect during the Term all rights, leases, licences, permits and governmental or non-governmental approvals necessary for use of the Dark Fibre by Customer.

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6.2. Customer may not sublease, assign, license, sublicense, sell, share or otherwise utilize in conjunction with a third party (including without limitation in any joint venture or as part of any outsourcing activity) the Dark Fibre or the Interoute Network, or any component thereof. Any breach of this Clause will be deemed a material breach of this Agreement, and in the event of such material breach, Interoute will have the right to immediately terminate this Agreement in addition to any and all rights and remedies. For the avoidance of doubt, nothing in this clause shall prevent Customer from providing non dark fibre services to its own customers using the Dark Fibre.

6.3. Interoute may from time to time during the Term, exchange the Dark Fibre(s) provided to Customer with alternative Dark Fibre(s) at no additional cost to the Customer.

7. NON-INTERFERENCE AND COMPLIANCE WITH LAW

7.1. The Customer shall ensure that its use of the Dark Fibre in the Interoute Network and any equipment associated with it shall not:

- a. interfere, interrupt or impair service over any part of the Interoute Network or any circuits or facilities of any other user of the Interoute Network;
- b. impair privacy of any communications over such circuits or facilities;
- c. cause damage of any nature to the Interoute Network; or
- d. create hazards to any persons or any of the aforementioned users of the Interoute Network or of any owner of the aforementioned circuits or facilities or to the public.

7.2. Customer shall bear the cost of any additional protective apparatus reasonably required to be installed because of the use of the Dark Fibre by the Customer or any customer of the Customer.

7.3. Customer shall be solely responsible for the use which it or any other person permitted to use the Dark Fibre makes of the Dark Fibre and shall indemnify and hold harmless Interoute and Interoute's officers, directors, employees, agents and sub-contractors from and against any and all losses, costs, claims, damages and liabilities whatsoever arising from:

- a. any defamatory, obscene or otherwise illegal content; or
- b. any claim asserted by any third party arising in any way from the use of the Dark Fibre by the Customer or any other person permitted by the Customer to use the Dark Fibre.

7.4. The Customer shall comply with all reasonable rules and instructions from time to time notified by Interoute to the Customer in relation to the use of the Dark Fibre.

8. INSURANCE

8.1. Each Party shall, at its own expense, secure and maintain in force, throughout the Term, public liability insurance, for a minimum amount of five million euros (€5,000,000) per occurrence (in so far as this is available in the market) and worker's compensation and employer's liability insurance as required by the laws of all applicable Governmental Authorities. Such insurance may be provided in a policy or policies, primary and excess, including the so-called umbrella or catastrophe forms. The undertaking with respect to insurance shall not relieve either Party of its obligations hereunder. In addition, each Party shall comply with the insurance requirements in any underlying Authorizations (provided that such Party has knowledge of such requirements).

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8.2. Unless otherwise agreed or notified to the other Party, all insurance policies shall be obtained and maintained in so far as is available in the market with companies rated AX or better by Best's Key Rating Guide and each Party shall, upon request, provide an insurance certificate confirming compliance with the requirements of this Clause.

8.3. Subject to Clause 16 of Schedule 1, in the event any Party fails to maintain the required insurance coverage and a claim is made or suffered, the Party failing to provide such coverage shall indemnify and hold harmless the other Party from any and claims for which the required insurance would have provided coverage.

9. WARRANTIES

9.1. Interoute hereby represents and warrants to Customer that it has good title to the Dark Fibre, free and clear of any liens or encumbrances that may interfere with Customer's use and quiet enjoyment of the Dark Fibre.

9.2. Except as expressly set forth herein Interoute gives no warranties and specifically excludes any implied warranties, with respect to the Dark Fibre and Maintenance Services including but not limited to any warranties of merchantability or fitness for a particular purpose.

9.3. Customer represents and warrants to Interoute

a. Customer has obtained, and shall use commercially reasonable efforts to maintain in good standing, and shall ensure that all third parties with whom it has entered into an agreement for the purpose or use of part or all of the Dark Fibre have so obtained and so maintain all consents, approvals, licences, permits and other approvals, both governmental and private, as may be necessary (as at the date of performance) to permit Customer to perform its obligations under this Agreement and to permit Customer and such third parties to access, acquire and use the Dark Fibre.

b. Customer shall not create or permit to exist any liens, encumbrances or charges to be placed upon the Dark Fibre or Customer's rights under this Agreement save where a floating charge has been granted by Customer in favour of financial institutions or others against all Customer's assets generally in connection with financing arrangements of Customer.

9.4. The foregoing representations and warranties shall survive the execution and delivery of this Agreement.

Appendixes follow these Additional Terms for the Lease of Dark Fibre:

- **Appendix 1** Charges and Payment Terms
- **Appendix 2** Acceptance Procedures and Tests
- **Appendix 3** Dark Fibre Specification
- **Appendix 4** Service Level Targets

Appendix 1

charges and payment terms

1. **CHARGES**

The Charges shall be payable by Customer in accordance with Clause 7 of Schedule 1 or as otherwise provided for in the Purchase Order.

2. **MANPOWER CHARGES**

Other tasks undertaken by Interoute at the request of the Customer or activities undertaken by the Customer which require the attendance of Interoute personnel and which are not otherwise covered by this agreement (e.g. escorting non trusted Agents, supervising Customer Outages, additional testing) will be charged at the hourly rates shown below:

Notice Given	per hour
48 hours notice (Euro)	100
24 hours notice (Euro)	120
4 hours notice (Euro)	150

These rates are for a trained telecommunications technician and include travel and subsistence, but excludes any materials and are subject to annual review. A minimum call-out period of four (4) hours applies in the event of an emergency and forty-eight (48) hours in the event of a non-emergency.

Appendix 2

specification of the dark fibre

1. ACCEPTANCE PROCEDURE

- 1.1. Interoute will prepare the Customer's Dark Fibre requirements along the agreed route and perform tests to determine optical performance of the Dark Fibre.
- 1.2. The test results will be recorded with the handover form and forwarded to Customer.
- 1.3. Customer's technical personnel will be given the opportunity to verify the results in accordance with Clause 2 of the Agreement.

2. TESTING DELIVERABLES

The following table denotes by way of a tick, the standard testing and handover deliverables provided to the Customer. Where the Customer requires testing outside the standard deliverables, the relevant charges are listed.

Bi-Directional OTDR Traces	√
Attenuation	
Attenuation @1310nm	√
Attenuation @1550nm	√
Attenuation @1625nm (requested at time of order)	€400 per Section
Attenuation @1625nm (requested later)	€600 per Section
PMD/CD per Section	€3000 per Section
Allocation Table	
Covering fibre #'s, ODF points, Demarcation info	√
GIS Maps (where available)	€1000 per Map

3. OPTICAL ACCEPTANCE MEASUREMENTS

All testing is performed in accordance with ITU-T G.650, Definition and Test Methods for the relevant parameters of single mode fibres.

Appendix 3

specification of the dark fibre

1. FIBRE SPECIFICATION

All Dark Fibre Sections as defined in the Purchase Order shall at the time of acceptance comply with the optical and mechanical characteristics listed below:

Fibre Type	ITU-T recommendation G.655
The actual measured attenuation shall be less then or equal to the calculated attenuation for the Dark Fibre Section under test	Calculated Attenuation is $\{(0.25 \times \text{Length in Km}) + (0.06 \times \text{No. Of splices}) + (0.5 \times \text{number of connectors})\}$ dB @1550nm Calculated Attenuation is $\{(0.27 \times \text{Length in Km}) + (0.06 \times \text{No. Of splices}) + (0.5 \times \text{number of connectors})\}$ dB @1625nm
End of Life Attenuation per Section	BOL Attenuation + Yrs since RFS x 0.1dB
Average Splice loss	$\leq 0.06\text{dB}$
Maximum individual splice loss	$\leq 0.15\text{dB}$
Maximum individual connector loss	0.5dB
Reflectance of a connector	$<-45\text{dB}$
Polarisation Mode Dispersion*	$<0.05 \text{ psec}/\sqrt{\text{km}}$
Chromatic Dispersion*	2.0 to 6.0 psec/ nm.km @ 1550nm 4.5 to 11.2 psec/nm.km @ 1625nm

Fibre Type	ITU-T recommendation G.652
The actual measured attenuation shall be less then or equal to the calculated attenuation for the Dark Fibre Section under test	“Beginning of Life” (BOL) Calculated Attenuation is $\{(0.35 \times \text{fibre length (Km)}) + (0.06 \times \text{No. of splices}) + (0.5 \times \text{No of connectors})\}$ dB @ 1310nm Calculated Attenuation is $\{(0.25 \times \text{fibre length (Km)}) + (0.06 \times \text{No. of splices}) + (0.5 \times \text{No of connectors})\}$ dB @ 1550nm
End of Life Attenuation per Section	BOL Attenuation + Yrs since RFS x 0.1dB
Average Splice loss	$\leq 0.06\text{dB}$
Maximum individual splice loss	$\leq 0.15\text{dB}$
Chromatic Dispersion*	$\leq 18\text{ps/nm.km @ 1550nm}$
Maximum individual connector loss	0.5dB
Reflectance of a connector	$<-45\text{dB}$

*Not tested as standard.

Appendix 4

Service Level Targets

1. DEFINITIONS

The following lists of definitions are in addition to the list of definitions given in Clause 1 of this Agreement. In case of discrepancy between definitions, the following definitions shall apply to this Appendix only:

"Availability" or "Available"	means the duration a customer can pass optical signals between dark Fibre Interface Points, expressed as a percentage of the total time in the Measurement Period. For the purposes of this calculation, the Dark Fibre shall be deemed usable by Customer during planned maintenance and during any periods in which the Dark Fibre is not usable due to an event of Force Majeure, failure of Customer Premises Equipment, Customer power supplies, or the acts or omissions of Customer's or any third party's employees or agents.
"Monthly Review Period"	Means the period of measurement commencing at 0.00hrs on the first day any month and concluding at 23.59hrs on the last day of the same month.
"Non Service Affecting Fault"	means any fault, repair or condition wherein the customer does not suffer a total loss of service or any condition that is not a Service Affecting Fault.
"Service Affecting Fault"	means any fault, or condition affecting the Customer's ability to convey electronic or optical communications traffic across the Dark Fibre as registered by Customer or Interoute by issue of an incident report. Faults due to Force Majeure, failure of Customer's equipment or acts or omissions of Customer or any third party employees or agents are Non Service Affecting Faults.

2. CLASSIFICATION OF INCIDENTS

2.1 Type of Fault

- a. Interoute and the Customer will classify incidents according to their severity as either a Service Affecting Fault or Non Service Affecting Fault.
- b. In case of a Service Affecting Fault, Interoute undertakes to dedicate full time resources on a 24x7 basis to solve the problem and the Customer undertakes to provide reasonable assistance to Interoute at all times.
- c. In case of Non Service Affecting Fault, Interoute undertakes to dedicate full time resources during Working Hours to solve the problem. Customer undertakes to provide reasonable assistance to Interoute during Working Hours.

2.2 Planned Maintenance

- a. Planned Maintenance that does not affect Customer's ability to operate the Customer Services will be performed during Working Hours and will be carried out as quickly as possible. Interoute will notify Customer of such repairs ten (10) days in advance if possible.
- b. Planned Maintenance that materially affect Customer's ability to operate the Customer Service will be performed in co-ordination with Customer and in accordance with 10 of Schedule 1 of the Agreement.

Appendix 4

Service Level Targets

3. UNNECESSARY INTERVENTIONS

- a. Unnecessary interventions requested by Customer i.e. where no incident affecting customer service has been ascertained, will be invoiced to Customer based on Interoute's manpower hourly charges shown in the table below and the cost of any evidenced work undertaken plus 20%.

4. CUSTOMERS OBLIGATIONS

Customer undertakes to provide Interoute with any information of any kind that may be necessary for the performance of the Maintenance Services under this Agreement, which it shall facilitate to the fullest extent.

5. SERVICE LEVEL TARGETS

The table below describes the service level targets Interoute will endeavour to achieve for the Dark Fibre Sections. The time starts running at the moment the Customer has given notification of the problem to Interoute in accordance with this Agreement.

Service	Activity	Service Level Target
Customer Help Desk	Availability	24h/7d/365
Maintenance of Dark Fibre	Time to repair- Service Affecting Fault	< 12 hours
	Time to repair - Non Service Affecting Fault	< 10 days
Availability	Annual availability per Section	99.5%

6. SERVICE CREDITS FOR FAILURE TO MEET SLA'S

Subject to Clause 9 of Schedule 1, Interoute will provide the Customer with Service Credits, as set out below.

6.1 Service Installation

- a. If Interoute fails to meet the Customer Committed Date, the Customer will be entitled to a service credit in accordance with this Clause.
- b. If only part of an order is delayed, valid credits will be payable only in respect of the Dark Fibre Sections 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 Dark Fibre Section:	Service Credits as % of Installation Fee of affected Dark Fibre Section :
0 to 5 days	5%
6 to 10 days	10%
11 to 30 days	15%
31 days	20%

6.2 Fault repair time Guarantee (Service Affecting Faults)

If the repair time for Service Affecting Faults falls below the thresholds as set out in the table below the Customer will have the right to claim compensation

- a. Where repair time guarantee falls below 12 hours during the Monthly Review Period, the Customer will be entitled to Service Credits on the applicable Section Monthly Charge as follows:

Appendix 4

Service Level Targets

repair time	Service Credits as % of Monthly Charge pro rated for the relevant Section
12 to 16 hours	5%
16 to 20 hours	10%
20 to 24 hours	15%
>24 hours	25%

6.3 Limitations to payment of Service Credits

- 6.3.1 Exclusions of Service Credits are set out in clause 9.6 of Schedule 1.
- 6.3.2 The maximum compensation payable by Interoute pursuant to the Service Level Target each year of the term of the Agreement shall not exceed 50% of the aggregated Monthly Charges payable by Customer to Interoute for that year
- 6.3.3 Service Credits are not applicable for more than one breach of any Service Level outlined in this Schedule 2 arising from the same occurrence.