

Reference Offer for Leased Line Services (ROLLS)

Version 2.0.1

Date	Status
20/09/2015	Version dated 23/09/2015 before public consultation
29/01/2016	Version dated 29/01/2016 for public consultation (29/01/2016 – 29/02/2016)
22/04/2016	Version 1.0 applicable as from 22/04/2016
14/01/2021	Version 2.0.1 before public consultation



Summary

Schedule 1	Glossary	16
Schedule 2	Ethernet Half-Circuit Service Description	19
2.1.	Generalities	19
2.2.	Regional Interconnections for Ethernet Half-Circuits	19
2.3.	Ethernet Half-Circuits Specifications	20
2.4.	Maps	22
2.5.	Service Termination	23
Schedule 3	Planning, Ordering and Provisioning	24
3.1.	Forecasting	24
3.2.	Procedures for Regional Interconnections	24
3.3.	Procedures for Leased Line Services	25
3.3.1.	Initial Request, Feasibility Check and Ordering	25
3.3.2.	Installation Procedures for Leased Line Services	27
3.3.3.	Lead Times for Leased Line Services	30
3.3.3.1.	Lead Times for Standard Requests	30
3.3.3.2.	Rush Orders for Leased Line Services	30
3.4.	Non-standard Requests	31
Schedule 4	Fault Repair and Reporting	32
4.1.	POST Technologies' Fault Contact Point, Fault Acceptance and Billing	32
4.2.	Fault Reporting to POST Technologies by the Operator	32
4.3.	Fault Reporting to POST Technologies by the End User	33
4.4.	POST Technologies and Operator Liabilities for the Fault Clearance	33
4.5.	Wrongful Repair Request	34
4.6.	End User's Liabilities	34
Schedule 5	Service Level Agreement	36
5.1.	Service Level for Leased Line Service Provisioning	36
5.1.1.	Service Level for Leased Line Service Restoration	36
Schedule 6	Tariffs	39
6.1.1.	One-off Fees for Regional Ethernet Half-Circuits (REHC)	39
6.1.1.1.	Activation Fees	39
6.1.1.2.	Maps	39
6.1.1.3.	Rush Orders	39
6.1.1.4.	Fault Repair	40
6.1.1.5.	Labour Costs	40
6.1.2.	Recurring Fees for Ethernet Half-Circuits	41
Schedule 7	Regional Interconnections	42

1. ROLLS Legal Terms

This Reference Offer for Leased Line Services ("**ROLLS**") defines the terms and conditions, which shall apply and be granted by POST Technologies to Operators ("**Operators**") for the provisioning of POST Technologies' Leased Line Services as required by Regulation ILR/T20/5 and ILR/T20/7.

All Schedules attached to this ROLLS form an integral part hereof and detail the different Leased Line Services and their respective applicable provisioning terms offered by POST Technologies under this ROLLS.

The Co-location services as referred to from time to time in this ROLLS are part of and subject to the applicable Reference Co-location Offer ("**RCO**") and shall be provided by POST Technologies to the Operators in compliance with the specific terms and conditions of the said RCO.

As from the effective date of a Leased Line Agreement the Operator is subject to this ROLLS and any of its subsequent and/or to any reference offers replacing it, as from their date of definitive publication in compliance with the applicable regulations and, more particularly, in compliance with Regulation ILR/T20/5 and ILR/T20/7.

This ROLLS does not purport to diminish the rights of Operators to seek additional services nor POST Technologies' obligation to provide additional services under applicable law.

Apart from this ROLLS, POST Technologies' commercial offers as well as any other valid and applicable reference offer(s), if any, are still available to the Operator on request pursuant to their respective terms and conditions.

1.1. Services covered

This ROLLS defines the minimal terms and conditions for Leased Line Services which POST Technologies will grant to Operators.

Nevertheless, POST Technologies reserves the right to provide more beneficial terms and conditions on a commercial basis, in accordance with the applicable regulatory framework, including the principle of non-discrimination.

The Leased Line Services covered by this ROLLS are:

- (i) Regional Ethernet Half-Circuits

A detailed description of these services is provided in Schedule 2 - Ethernet Half-Circuit Service Description.

Leased Line Services delivery and operations by POST Technologies shall be in accordance with the applicable Technical Information, as provided by POST Technologies to the Operator, which shall conform to the general principles set out in and form integral part of the ROLLS.

Leased line services purchased under the terms of previous versions of the ROLLS and RIO reference offers which do not comply with the specifications of the Leased Line Services of the present version of the ROLLS shall remain in place and will still be supported after the entry into force of this version of the ROLLS. TDM-based circuits built over SDH (e.g. E1, STM-1) will be phased out in the coming years. Pricing of existing Local Ethernet Half-Circuits as available in ROLLS v1.0 will be adapted as to not exceed the price caps for Ethernet Half-Circuits with a regional interconnection as defined by Regulation ILR/T20/7.

1.2. Definitions and Interpretation Rules

1.1.1. Definitions

Unless expressly stated otherwise

- (i) references to an article are references to an article of the ROLLS, while references to clauses and schedules are to the clauses and schedules of the ROLLS; references to paragraphs are to paragraphs of the relevant schedule;
- (ii) reference to a person includes a natural person, corporate or unincorporated body (whether or not having separate legal personality), while references to a statute or statutory provision is a reference to it as it is in force for the time being, taking account of any amendment, extension or re-enactment and includes any subordinate legislation for the time being in force made under it;
- (iii) a reference to one gender shall include a reference to the other genders and vice versa;
- (iv) words in the singular shall include the plural and vice versa, while references to a gender include any other gender;
- (v) writing or written includes faxes but not e-mail, except if specifically specified in this ROLLS or in the Leased Line Agreement;
- (vi) where the words "include(s)", "including" or "in particular" are used, they are deemed to have the words "without limitation" following them. The words "other" and "otherwise" are illustrative and shall not limit the sense of the words preceding them;
- (vii) any obligation in the ROLLS or the Leased Line Agreement on a person not to do something includes an obligation not to agree or allow that thing to be done.

1.1.2. Interpretation Rules

To the extent that they are consistent with and the subject-matter of the provisions concerned have not been replaced by the terms of the ROLLS and/or the Leased Line Agreement, the general conditions of POST Technologies, which can be consulted on POST Technologies' Website, will apply to the provision of the Leased Line Services.

Unless expressly defined otherwise hereafter (in particular in Schedule 1 - Glossary below), the terms used in this ROLLS shall be construed and interpreted in accordance with the Law of February 27th, 2011 on and Electronic Communication Networks and Services and its implementing regulations.

1.3. Term

This ROLLS is valid as from the date of its definitive publication in accordance with Regulation ILR/T20/5 and ILR/T20/7 unless the ILR advises otherwise or unless

- (i) a new ROLLS is published or adopted by POST Technologies, in compliance with Regulation ILR/T20/5 and ILR/T20/7, or
- (ii) a material change occurs in the laws or regulations with respect to electronic communication services and networks in Luxembourg and this only to the extent that such a material change would render the ROLLS in applicable or unenforceable.

1.4. Amendments

In accordance with Regulation ILR/T20/5 and ILR/T20/7 the content of this ROLLS may be timely reviewed and amended in order to comply with applicable rules and regulations. However, amendments to the general conditions of POST Technologies and to the Technical Information can be made in accordance with the amendment provisions set forth therein.

Furthermore, ILR has the right to request or impose on POST Technologies modifications to the applicable ROLLS or the adoption of a new ROLLS to be undertaken by POST Technologies in compliance with the applicable procedural rules and regulations.

1.5. ROLLS Tariffs

All ROLLS Tariffs, including those specified in the Schedules attached hereto, are in EURO (€) and exclusive of Value-Added Tax (VAT) or any other legal taxes, which will be added where applicable. Please refer to Schedule 6 - Tariffs.

POST Technologies may revise the ROLLS Tariffs at any time after having definitively published the reviewed ROLLS Tariffs in accordance with Regulation ILR/T20/7 .

If any ROLLS Tariff or the means and/or methods of calculating such ROLLS Tariff is subject to a legal review by the ILR or with any other administrative or judicial authority, the concerned ROLLS Tariff or the concerned calculation method shall be treated as valid until the final conclusion of the legal review, unless the competent authority directs otherwise. If an authority finds a ROLLS Tariff or a ROLLS Tariff calculation method to be unlawful then POST Technologies shall make any necessary alterations to ROLLS Tariffs for the future.

1.6. Billing

The Operator undertakes to pay all invoices in relation to this Leased Line Agreement in EURO (€) and within the payment period specified on the relevant invoice(s), it being specified that the Operator shall pay to POST Technologies all due amounts as set forth above irrespective of (i) the billing by the said Operator to its own End User and/or of (ii) the payment by the End User(s) of the services provided to them by the Operator on the basis of or in relation to the Leased Line Services or any other telecoms service(s) provided by POST Technologies to the Operator.

Upon POST Technologies' request, the Operator shall provide an irrevocable and unconditional bank guarantee issued in favour of POST Technologies by an EU financial institution for an amount of at least 50.000 €

- (i) before POST Technologies' acceptance of any order in case the Operator's creditworthiness appears to be not sufficient for the Leased Line Services to be provided by POST Technologies; or in case
- (ii) the Operator has had repetitive credit defaults in the past towards POST Technologies, whichever may be the type of services concerned;
- (iii) the Operator fails to make payment to POST Technologies of any undisputed amount when due in relation to the Leased Line Services; or
- (iv) in case the Operator has a material, negative change in its financial conditions and/or creditworthiness.

The above-mentioned guarantee shall be issued for a period equivalent to the duration of the Leased Line Agreement, but may be extended having regards to the circumstances upon POST Technologies' request. When, and as long as serious and ascertained doubts exist regarding the Operator's creditworthiness or solvency, POST Technologies may without prejudice to previous arrangements require payment in advance.

1.7. Parties' Obligations

1.7.1. POST Technologies shall be responsible for

- (i) the Network used to provide the Leased Line Services from the End User's NTP or FO-NTP to the POI;
- (ii) connecting or disconnecting Leased Lines further to and in compliance with valid Operator's confirmed orders submitted to POST Technologies in accordance with Schedule 3 – Planning, Ordering and Provisioning;
- (iii) informing the Operator on system alterations to be made in POST Technologies' Network and having a potential effect on the services offered by the Operator in compliance with Article 2.5 - Scheduled System Alteration below;
- (iv) the maintenance of the Leased Line Services between the POI with the Operator and the demarcation point on the End User's premises. In no case shall POST Technologies be responsible for bad cabling connections between the network termination points (NTP/FO-NTP) and the NTU acting as a demarcation point.

POST Technologies shall not be responsible for the performance and follow-up of any service that the Operator operates on a Leased Line and not provided to the latter as part of the Leased Line Services.

POST Technologies shall in no case be obliged to expand, modify or condition in any way POST Technologies' Network in whole or in part, to provide any part of the Leased Line Services, unless expressly agreed otherwise in the Leased Line Agreement and only to the strict extent as specifically agreed upon by and between the Parties or as imposed by the ILR.

Request for new connections to existing and/or new buildings shall be handled pursuant to Schedule 3 - Planning, Ordering and Provisioning.

1.7.2. The Operator shall at least be responsible for the following :

- (i) ordering or terminating, as the case may be, a Leased Line Service in accordance with Schedule 3 - Planning, Ordering and Provisioning;
- (ii) using exclusively telecommunications terminal equipment compliant with "Règlement grand-ducal du 4 février 2000 concernant les équipements hertziens et les équipements terminaux de télécommunications et la reconnaissance mutuelle de leur conformité" and any subsequent regulations replacing or amending this regulation, as well as with any specifications provided by POST Technologies in accordance with the terms of this ROLLS;
- (iii) conducting appropriate fault testing and timely producing associated Fault Reports to evidence faults in the POST Technologies' Network in accordance with this ROLLS and in particular with Schedule 4 - Fault Repair and Reporting;
- (iv) complying with any obligations of or related to legal interception;

- (v) informing the relevant End User about all technical modifications required on his/her existing installation and the service impacts that might occur; and
 - (vi) tracking POST Technologies' system alteration activities as well as achieving relevant steps and actions in due time in order to make sure that the End User's services are maintained;
 - (vii) notifying POST Technologies in writing of its contact details relevant for or in relation to the Leased Line Services as of the signature date of the Leased Line Agreement as well as notify any change thereto to POST Technologies in due time and in any case sufficiently in advance in compliance with the Leased Line Agreement.
- 1.7.3. No operator (including POST Technologies) shall be responsible for the content of traffic or transactions passed through its own or an operator's network (including POST Technologies' Network). Laws and regulations regarding confidentiality and access by legal authorities to traffic or transactions on the Operator's and POST Technologies' network will apply.

1.8. POST Technologies' General Powers

- 1.8.1. POST Technologies may refuse to grant access to any Leased Line Services to any Operator for justified technical constraints or the necessity to warrant POST Technologies' Network's integrity. Any decision to refuse to grant access will be notified to the ILR.
- 1.8.2. Occasionally, POST Technologies, acting reasonably, may suspend in whole or in part the Leased Line Services for any of the following reasons:
- (i) if required by any administrative or judicial authority duly authorised and empowered to do so, or
 - (ii) for maintenance reasons, network adaptations and/or in case of any usage creating perturbations or disruptions of any part of the Leased Line Services or of any other service(s) using the same infrastructure.
 - (iii) in order to ensure the general availability of the Leased Line Services.
- 1.8.3. Wherever possible, POST Technologies will give the Operator reasonable written notice before performing any of the actions related to the above and POST Technologies will do its best efforts to restore Leased Line Services as soon as possible after the concerned temporary suspension.
- 1.8.4. POST Technologies shall have the right to disconnect any equipment or any part of it without prior reference or notice to the Operator if at such time, in POST Technologies' reasonable opinion it is exposing or could expose any person to any danger of death or injury.
- 1.8.5. Without prejudice to the foregoing clause, POST Technologies shall have the right to request the Operator to disconnect any equipment or any part of it within a reasonable time period, if, at such time, in POST Technologies' reasonable opinion, it is causing, suspected of causing or could cause damage to the Network or if such exposure or damage is or may be imminent, POST Technologies will immediately notify the Operator of the circumstances in which such compliant equipment has to be disconnected. If the Operator has not disconnected the concerned equipment within a reasonable time period, POST Technologies shall have the right to disconnect itself the concerned equipment after prior notification thereof to the Operator.

- 1.8.6. POST Technologies shall not be liable to the Operator for any loss, damage or injury arising due to POST Technologies' action in disconnecting the equipment or for any interruption to the service provided by the Operator using the equipment howsoever caused, except where the loss damage or injury is caused directly due to POST Technologies' gross negligence.
- 1.8.7. In the event of a disconnection in accordance with the above, the Operator shall not reconnect the equipment until the reasons for its disconnection have been fully remedied. In case the danger or threat referred to above is caused directly due to POST Technologies' negligence, then POST Technologies shall reimburse to the Operator the evidenced reasonable direct costs of reconnecting the equipment.

1.9. Limitation of Liability

- 1.9.1. POST Technologies has no obligation of any kind to the Operator beyond the obligations to exercise the reasonable skill and care of a competent telecommunications operator in performing its obligations under the ROLLS and the Leased Line Agreement.
- 1.9.2. Neither Party undertakes any liability for the acts or omissions of a third provider of telecommunications services, nor shall be held liable for such act or omission. As a consequence, the Party affected by such an act or omission shall carry out all appropriate rights and measures against the concerned third party provider of telecommunications services, without involving the other Party, while the latter will, if appropriate having regards to the circumstances, reasonably cooperate with the concerned other Party in relation to the above.
- 1.9.3. Neither POST Technologies nor the Operator excludes or restricts its liability for death or personal injury caused by its own negligence or liability.
- 1.9.4. POST Technologies will not be liable to the Operator for any claims, proceedings or actions brought or made against POST Technologies by any of the Operator's End Users, it being specified that in such case the Operator shall keep POST Technologies free and harmless of any such claims, proceedings or actions.
- 1.9.5. Neither Party shall be held liable to the other in contract, tort or otherwise, to the fullest extent permitted by law, for indirect or consequential damage or any other loss of profit whatsoever arising in connection with the implementation of this ROLLS and the relevant Leased Line Agreement, howsoever caused.

1.10. Property

All relevant infrastructures and equipment used by POST Technologies for the provision of Leased Line Services to the Operator remain and shall remain the integral property of POST Technologies.

The Operator shall be responsible for any equipment put at disposal by POST Technologies and must take reasonable steps to ensure that nobody (other than someone expressly authorised by POST Technologies) adds to, modifies or in any way interferes with it. The Operator will be liable to POST Technologies for any loss of or damage to POST Technologies' equipment, except where such loss or damage is due to fair wear and tear or is caused by POST Technologies, or anyone acting on POST Technologies' behalf.

Any software and/or user manuals provided or made available by POST Technologies to the Operator in relation to any part of the Leased Line Services :

- (i) are and shall remain protected by applicable copyright law and as such, any copy, translation, transcription, bearing, correction, integration modification thereof, whichever may be the type, support, way and/or extend thereof, either by the Operator or by an End User, is strictly prohibited; and
- (ii) shall remain the exclusive property of, as the case may be, POST Technologies or any third party having title thereto.

The Operator expressly undertakes to take and/or cause to take all and all necessary or appropriate steps and measures to prevent any breach of the above provisions.

With the cessation of any part of the Leased Line Services either by the Operator or by a specific End User, whatever the reason, any usage rights of the Operator on that relevant infrastructure, software and/or user manuals shall automatically expire on the effective cessation date of the Leased Line Services, without POST Technologies having to carry out any specific steps in relation thereto and/or for that specific purpose and without prejudice to the right of POST Technologies to recover any physical elements that are its property.

1.11. Information Exchange, Confidentiality

1.11.1. In order to implement the ROLLS and the Leased Line Agreement, POST Technologies and the Operator will have to exchange information and the disclosing Party undertakes to use reasonable endeavours to ensure that the information disclosed is correct to the best of its knowledge at the time of such information provision.

1.11.2. The POST Technologies Staff is under professional secrecy. This legal obligation binds the personnel to secrecy concerning the Operator, as well as its services and data (including those of its End Users).

1.11.3. With respect to each and any Confidential Information provided by either Party (the "Disclosing Party") to the other (the "Receiving Party") in relation to this Agreement, the Receiving Party undertakes to :

- (i) hold such Confidential Information in confidence and protect it with the same degree of care with which it protects its own Confidential Information of equivalent importance, but in no event less than reasonable care;
- (ii) use such Confidential Information only in pursuance of its business relationship with the other Party and its Affiliates as well as in relation to the Leased Line Agreement and/or the Leased Line Services;
- (iii) not copy or otherwise duplicate in whatever form and on whatever support or mean either known or unknown to date (e.g. in written, pictorial, floppy disks, magnetic disks, optical disks or other tangible form) such Confidential Information or knowingly allow anyone else to access, copy or otherwise duplicate any of such Confidential Information under its control without the Disclosing Party's prior written approval (which shall not be unreasonably refused, delayed or conditioned), except as regards to Authorised Persons as defined below;
- (iv) restrict access to and disclosure of such Confidential Information solely to those of its employees (including its management and directors), external advisors and/or consultants and any of those of its Affiliates and/or of those of its Subcontractors

with a strict need to know and directly involved in the implementation of this Agreement and/or in the provision of any part(s) of the Services (collectively the "Authorised Person(s)"), and not to disclose Confidential Information to any third parties (including, without limitation, any of its other agents, consultants and/or subcontractors not being Authorised Persons); as well as

- (v) require that all Authorised Persons to which access to the Confidential Information has been or will be granted or given duly agree to maintain the confidentiality thereof, and specifically to comply with the provisions set forth herein by contract, work rules or other appropriate methods at the Receiving Party's option; and
- (vi) not analyse or reverse engineer for composition of any Confidential Information, nor assist others to disassemble, decompile, reverse engineer or otherwise attempt to recreate the Confidential Information.

1.11.4. Each Party shall take all reasonable steps and measures to :

- (i) avoid disclosure, dissemination and more generally unauthorised access to or use of Confidential Information, which shall comply with the measures it usually takes to protect its own confidential information or its information of a similar nature and in any case take not less than reasonable care; and
- (ii) segregate Confidential Information from third parties' confidential materials, in particular to prevent commingling; and
- (iii) at its sole expense and including but not limited to court proceedings, to restrict its Authorized Persons from prohibited or unauthorized disclosure or use of the Confidential Information as well as to make each of them sign individual secrecy commitments at least equivalent to those contained in the Leased Line Agreement.

1.11.5. This Article 1.11 shall nevertheless not prevent or refrain any Party from complying with its legal information obligations.

1.11.6. The Receiving Party may in particular disclose Confidential Information to European or national competent governmental or administrative authorities to the extent strictly necessary to ensure compliance with any law. In case Confidential Information is to be communicated pursuant to the requirement of law, regulation, judgment, order from any competent administrative authority or judicial body and/or request for the needs of any proceedings with any courts or administrative authorities, having the right to request the disclosure of such a Confidential Information, the Receiving Party shall, to the extent permitted by any applicable law or the relevant regulation, authority or body, notify such request for disclosure to the Disclosing Party without undue delay upon receipt thereof so that the Disclosing Party may, at its sole discretion and costs, seek protective order, confidential treatment and/or other appropriate remedy.

In any case, the Receiving Party shall be entitled to disclose such Confidential Information as strictly requested by the relevant authority, provided it duly specifies to the said authority at the time of such disclosure the confidential nature of such Confidential Information and takes all relevant steps to ensure due protection thereof to the widest extent possible.

1.11.7. The Receiving Party shall notify to the Disclosing Party, immediately upon discovery or knowledge thereof, any unauthorised use, access and/or disclosure of any Confidential Information or any other breach of this Article 1.11 and undertakes in such a case to (i) reasonably cooperate with and support the Disclosing Party and/or its Affiliates to protect

its/their rights and when relevant to regain possession of such Confidential Information as well as to mitigate the consequences of such unauthorised use, access and/or disclosure, to (ii) take out and achieve without undue delay all appropriate and relevant steps and measures to prevent further unauthorised use, access and/or disclosure of the Confidential Information or part thereof and to (iii) take appropriate defensive measures against any claim of infringement, in accordance with the reasonable instructions of the Disclosing Party.

1.11.8. All Confidential Information shall remain the property of the Disclosing Party and/or as relevant of the owner of the concerned Confidential Information.

1.11.9. The Parties agree that the provisions strictly relating to confidentiality set forth in this Article 1.11 shall survive any termination of the Leased Line Agreement, whichever may be the ground, for a three years (3) period as from the effective termination date of the Leased Line Agreement.

1.11.10. The Parties hereby declare and warrant that they comply with data protection and privacy laws, and any other laws in relation to the Leased Line Services, to the extent applicable to them. Each Party particularly undertakes to (i) comply with the legislation in force relating to personal data protection and computer security, including in particular the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (General Data Protection Regulation), the law of 1 August 2018 on the organization of the National Commission for Data Protection as well as the amended law of 30 May 2005 on the protection of privacy in the electronic communications sector (ii) hold and maintain such security infrastructure and organization as relevant or necessary to comply with and reasonably carry out its rights and obligations pursuant to this Agreement under optimum safety condition and in compliance with applicable laws.

2. ROLLS Operational Terms

2.1. The Leased Line Services shall:

- (i) be provided by POST Technologies to an Operator in accordance with the terms and conditions of this ROLLS;
- (ii) consist of and include the provisioning by POST Technologies to an Operator of:
 - a. service to enable the Operator to provide electronic communications and/or telecommunications services to End Users,
 - b. interconnection between POST Technologies' and the Operator's network at the POI for the handover of the traffic flows for the services provided to the Operator in the context of this ROLLS, or
 - c. maintenance and fault clearance for the provided services; and
- (iii) be provided only on a fibre line or a copper line where POST Technologies' Network allows the provision of these services.

2.2. Quality of Service – Service Level Agreement (SLA)

The service level set out in Schedule 5 - Service Level Agreement attached hereto shall apply to the provision of the Leased Line Services, while the said service level shall not apply in case of any Force Majeure event.

2.3. System Protection

Each Party is responsible for the safe operation of its respective system and shall take all reasonable and necessary steps and measures in its operation, implementation and maintenance to ensure that its system does not

- (i) endanger the safety or health of employees, contractors, agents or End Users of the other Party, nor
- (ii) damage, interfere with or cause any deterioration in the operation of the other Party's system or a third party operator's system.

2.4. Configuration and Technical Constraints

- 2.4.1. Leased Line Services will be provided in accordance with the technical constraints specified in Schedule 2 - Ethernet Half-Circuit Service Description.
- 2.4.2. POST Technologies shall in no case be liable for any shortage of Access Lines or cable saturation.

2.5. Scheduled System Alteration

- 2.5.1. Scheduled system alteration with major impact

When POST Technologies wants to make a system alteration which may reasonably have a major impact on the proper provision of the Leased Line Services under this ROLLS to one or several Operator(s), it shall give to the concerned Operator(s) a minimum two (2)-

month written notice prior to the foreseen date of the anticipated system alteration, which shall specify the technical details of the contemplated system alteration and the foreseen date of the said anticipated system alteration.

Following such notification, POST Technologies shall provide to the Operator additional information, as the Operator may reasonably request, including, to the extent reasonably practicable, the potential impact thereof on the service(s) provided by the Operator to the End Users.

2.5.2. Scheduled system alteration without major impact

When POST Technologies wants to make a system alteration which may reasonably not have a major impact on the proper provision of the Leased Line Services under this ROLLS to one or several Operator(s), it shall give to the concerned Operator(s) a prior notice having regards to the circumstances which shall in no case be less than three (3) business days prior to the foreseen date of the said anticipated system alteration. Such notification shall specify the technical details of the contemplated system alteration, the foreseen date of the related works and the reasonably foreseeable impact of the said works on the Leased Line Services provisioning.

2.6. Works or Intervention due to a POST Technologies Network Failure or an Emergency Case

In case POST Technologies has to intervene on its network further to a network failure or an emergency case, POST Technologies will do its best efforts to limit the time of its intervention having a possible impact on the provisioning of the Leased Line Services to the reasonable minimum time having regards to the circumstances. In any case, POST Technologies will inform the Operators of such an intervention as soon as reasonably possible, while the restoration of the service provisioning on POST Technologies' network shall be the priority.

2.7. Coordination between the Parties

2.7.1. POST Technologies will put into place entities in order to manage provisioning, maintenance and fault repair of the Leased Line Services, which will be accessible from 8:00 to 12:00 and from 13:00 to 17:00 from Monday to Friday, except on legal, public and usage holidays in Luxembourg. For fault repair purposes related to Leased Line Services, support entities will also be available outside of business hours on a 24 hours a day, 365 days a year basis.

2.7.2. The contact details of these entities will be published on POST Technologies' Website and shall be the exclusive contact points for any and all Operator's handling questions regarding the operational management of the Leased Line Services.

2.7.3. The Operator undertakes to (i) contact only POST Technologies' contact points as specified here above and to (ii) provide its own contact points for the management of Leased Line Services, including for questions regarding operational subjects.

2.7.4. POST Technologies' and the concerned Operator's respective contact points in relation to this ROLLS and to the provision and maintenance of the Leased Line Services are or, as the case may be, will be specified in the concerned Leased Line Agreement. In addition POST Technologies will publish its contact points on POST Technologies' Website, while the later version thereof shall always prevail over older ones.

2.8. Relations with End Users and Branding

2.8.1. End Users

Without prejudice to the applicable regulatory framework, POST Technologies will not undertake customer handling/care of the Operator's End Users.

The Operator shall be solely liable and responsible for any contractual terms and conditions that the Operator may offer to its End Users beyond the specifications of the Leased Line Services.

2.8.2. Branding

The Parties agree not to offer any Leased Line Service under any brand, including any trademark, trade name or company name of the other Party unless the use of the brand(s) of the other Party is expressly agreed upon in writing between the Parties. Such use of the brand will then be strictly limited to the service at stake.

POST Technologies is allowed to use, for all interventions in the context of this ROLLS, its normal vehicles and staff uniforms with all advertising on them as for its own products and services.

The Operator is not allowed to attach any branding or advertising signs on POST Technologies' equipment and infrastructure, neither in POST Technologies' sites nor in End User's sites.

3. Procedure for reaching a Leased Line Agreement

Leased Line Agreements will be negotiated and entered into, based on the standard terms and conditions, pursuant to and in compliance with the applicable legislation and POST Technologies shall endeavour its best efforts to conclude a Leased Line Agreement in no less than fifteen (15) days after receipt of a valid request.

Any request for entering into a Leased Line Agreement with POST Technologies under this ROLLS must be made in writing and per registered mail to the following address:

POST Technologies
Wholesale & Corporate Functions
2, rue Emile Bian
L-1235 Luxembourg
Tel: +352 49 91 1

Schedule 1 Glossary

Access Line	Refers to the physical line (i.e. copper pairs or optical fibres) between the NTP or FO-NTP at the End User's premises and the DSLAM, OLT or other aggregation node in POST Technologies' Network
Active Equipment	Equipment located at the End User's premises owned by either the Operator or the End User and used for circuit termination and delivery of Operator's services (e.g. router) as well as the End User's application equipment (e.g. PC)
Confidential Information	<p>Includes, without limitation,</p> <ol style="list-style-type: none"> all non-public information relating the technology, infrastructure, customers, business plans and business models, tariffs and prices, promotional and marketing activities, strategy, finances, and other business affairs, possible routes, needs, constraints and/or requirements, offers and/or potential or possibly involved Subcontractors or providers relating to any Party and/or its Affiliates; all third party information that the concerned Party and its Affiliates are obliged to keep confidential; as well as any possible combination of any of the above <p>and excludes information which</p> <ol style="list-style-type: none"> was in the legitimate possession of the Receiving Party (as defined below) at the time of its disclosure by the Disclosing Party (as defined below) or corresponds in substance to information developed by the Receiving Party, as it can be demonstrated on the basis of previously existing documents, and which was not previously acquired from the Disclosing Party on a confidential basis; was in the public domain at the time of its disclosure by the Disclosing Party to the Receiving Party, as it can be demonstrated on the basis of published documents which were generally available prior to the disclosure of the relevant information; is considered to be part of the public domain subsequent to its disclosure by the Disclosing Party to the Receiving Party, as it can be demonstrated on the basis of documents which were published and are generally available through no act or failure to act of the Receiving Party; and was disclosed by a third party to the Receiving Party without restriction on disclosure or use, unless the Receiving Party had actual knowledge that the third party acquired possession of it unlawfully or by a breach of contract or a fiduciary relationship.
DSLAM	Digital Subscriber Line Access Multiplexer
E1	2,048 Mbps point-to-point dedicated, digital circuit operating over two separate sets of wires
Ethernet	Data link layer protocol used for the transmission of data to other network devices, operating at Layer 2 of the OSI reference model
End User	Any natural or legal person with whom the Operator has entered into an agreement for the provision of publicly available telecommunication services
FO-NTP	Fibre Optic Network Termination Point, the termination point of the fibre optic section of POST Technologies' Network at the relevant End User's premises
Force Majeure	A force majeure event as defined in the GTCS of POST Technologies
FTTH	Fibre To The Home – POST Technologies' high-density fibre network for the universal fibre coverage of Luxembourg
FTTO	Fibre To The Office – POST Technologies' purpose-built fibre network providing connectivity for corporate customers
GTCS	POST Technologies' General Terms and Conditions for Sale in force, which can be consulted on POST Technologies' Website

Half-Circuit	Circuit providing leased line connectivity between End Users and a POI as defined in this ROLLS
ILR	<i>Institut Luxembourgeois de Régulation</i> , the national regulatory authority in Luxembourg, in particular in the field of electronic communications networks and services
Intellectual Property Rights	Means all rights in inventions, patents, copyrights, design rights, trademarks and trade names, trade secrets, know-how and other rights having a similar effect (whether registered or unregistered) and all applications for the same anywhere in the world
IP	Internet Protocol
Leased Line Agreement	The agreement that must be concluded between POST Technologies and the Operator in order to make the terms of the ROLLS binding upon the Operator In view of the provision of Leased Line Services by POST Technologies and any specific services and features ancillary to the Leased Line Services if expressly agreed therein by the Parties
Leased Line Service(s)	Regional Ethernet Half-Circuits as described in Schedule 2 of this ROLLS
Regional Half-Circuit	Circuit providing leased line connectivity between End Users and a POI as defined in this ROLLS, where the POI is located at a regional exchange point as defined in Schedule 2 and Schedule 7 of this ROLLS
NTP	Network Termination Point – termination point of the copper section of POST Technologies’ network at the relevant End User’s premises
NTU	Network Termination Unit – active equipment installed by POST Technologies at the End User’s premises acting as demarcation device for the delivery of the service as defined in this ROLLS
OLT	Optical Line Terminal, aggregation equipment used for providing circuits using PON technologies
ONT	Optical Network Terminal, terminal equipment used for providing circuits using PON technologies
Operator	Any legal or natural person operating telecommunications networks and/or providing telecommunications services in Luxembourg as approved by the ILR and having entered into a Leased Line Agreement with POST Technologies
Parties	Collectively POST Technologies and the Operator as specified in the relevant Leased Line Agreement
Party	As the case may be, either POST Technologies or the Operator as specified in the relevant Leased Line Agreement
Passive Equipment	All the passive equipment e.g. central splitters, in-house cabling, outlets, patchcords required between POST Technologies’ NTP, FO-NTP, ONT and/or NTU for the purpose of provisioning Leased Line Services at the End User’s premises
POI	Point Of Interconnection (in this ROLLS the POI between POST Technologies’ Network and the Operator’s network being a (physical) Ethernet port)
PON	Passive Optical Network, a fiber-optic telecommunications technology for delivering broadband network access to end customers
POP	Point Of Presence
POST Luxembourg	Title used in all of its activities by Entreprise des Postes et Télécommunications, an autonomous « Etablissement Public » created by the « <i>Loi du 10 août 1992 portant création de l’Entreprise des Postes et Télécommunications</i> » and further modified by the « <i>Loi du 15 mars 2016</i> »
POST Technologies	Telecommunications division of POST Luxembourg
POST Technologies’ Network	Collection of all terminal nodes, links and intermediate which are connected so as to enable telecommunication between all terminals. Includes POST Technologies’ passive network (copper and fibre network) as well as POST Technologies’ active transport network (access network, backbone).
POST Technologies’ Website	Refers to POST Technologies’ website for operators http://www.posttechnologies.lu/en/operators

QoS	Quality of Service
RCO	Reference Co-location Offer
Regulation ILR/T20/5	The ILR regulation referenced ILR/T20/5, dated October 27, 2020 and titled « <i>Règlement ILR/T20/5 du 27 octobre 2020 portant sur la définition du marché pertinent de la fourniture en gros d'accès de haute qualité en position déterminée (Marché 4/2014), l'identification de l'opérateur puissant sur ce marché et les obligations lui imposées à ce titre - Secteur communications électroniques</i> », as may be subsequently amended or replaced in whole or in part.
Regulation ILR/T20/7	The ILR regulation referenced ILR/T20/7, dated December 3, 2020 and titled « <i>Règlement ILR/T20/7 du 3 décembre 2020 portant sur la fixation des plafonds tarifaires pour la fourniture en gros d'accès de haute qualité en position déterminée (M4/2014) - Secteur communications électroniques</i> », as may be subsequently amended or replaced in whole or in part.
Regulation 14/180/ILR	The ILR regulation referenced 14/180/ILR, dated August 28, 2014 and titled « <i>Règlement 14/180/ILR du 28 août 2014 concernant les procédures à suivre par un opérateur identifié comme puissant sur le marché dans le cadre de la fourniture des indicateurs de performance</i> », as may be subsequently amended or replaced in whole or in part.
ROLLS	The present Reference Offer for Leased Line Services
ROLLS Tariff(s)	Any tariff applicable to any part of the Leased Line Service(s) as specified in Schedule 6 attached to this ROLLs
RIO	Reference Interconnect Offer
Rush Order	Order which will be processed with high priority for expedited activation of the Leased Line Service
Service Portal	Ticketing tool front end provided by POST Technologies to Operators for the creation and management of fault tickets in case of incidents
Service Profile	Set of specifications which determine the Leased Line Service
STM-1	Synchronous Transport Module level-1, a SDH ITU-T fiber optic network transmission standard with a bit rate of 155,52 Mbps
Technical Information	Documentation about the technical characteristics related to this ROLLs and made available to the Operators on POST Technologies' Website
xDSL	Digital subscriber line technologies using the voice-graded copper access network to provide connectivity services to customer premises. xDSL technologies supported by POST Technologies for Leased Line Services currently include ADSL1, ADSL2, ADSL2+, VDSL2 and G.SHDSL, single and multipair bonding technologies, depending on the available infrastructure between POST Technologies' access equipment and the End User's premises concerned.
Working Day(s)	Any days of the week in Luxembourg under exclusion of Saturday, Sunday as well as any public, statutory or bank holiday in the Grand-Duchy of Luxembourg (may also be referred to as "Business Day(s)").

Schedule 2 Ethernet Half-Circuit Service Description

2.1. Generalities

Leased Line Services allow the Operator to connect to POST Technologies' copper and fibre access networks and offer value-added services to its customers which require a guaranteed symmetrical capacity and high service quality.

Leased Line Services as described in this ROLLS only refer to Regional Ethernet Half-Circuits, i.e. Ethernet circuits between an endpoint located at an End User's premises and a previously defined regional exchange point at which the interconnection with the Operator will be set up.

2.2. Regional Interconnections for Ethernet Half-Circuits

Ethernet Half-Circuits are circuits based on the Ethernet protocol and establishing a point-to-point connection between terminal equipment located at the End User's premises and an Ethernet interface, which the Operator connects to, located at one of the regional exchange points. This regional interconnection will serve as aggregation interface for all regional traffic transmitted over Ethernet Half-Circuits.

6 regional exchange points have been defined for the interconnection with the Operator and the collection of the data traffic of all related Ethernet Half-Circuits terminating at End User premises located in the same region as the regional exchange point:

- North region: Ettelbrück POP 281
71, rue de Bastogne L-9011 Ettelbrück
- Center region: Luxembourg-Gare POP 148
19, rue de Reims L-2417 Luxembourg
- Center-West region: Beckerich POP 261
2A, Jos Seyler Strooss L-8522 Beckerich
- Center-East region: Wecker POP 171
4, Härebiërg L-6868 Wecker
- Southwest region: Esch-Wobrecken POP 155
69, rue Arthur Useldinger L-4351 Luxembourg
- Southeast region: Alzingen POP 136
483, route de Thionville L-5887 Alzingen

In order to have a regional interconnection for Ethernet Half-Circuits installed, the Operator must have purchased co-location services as described in the Reference Co-location Offer (RCO) at the aforementioned regional exchange points.

NTPs at End User sites are connected via fiber and/or copper directly or via intermediate sub-loop connection points to the MDF (Main Distribution Frames) located at the Local Exchange. One of the six regional exchange points for Ethernet Half-Circuits is assigned to each of the local exchanges, thereby creating an assignment of each End User address to a specific regional exchange point.

In order to collect traffic from Ethernet Half-Circuits terminating at any address in Luxembourg, regional interconnections will have to be set up at each one of the regional exchange points.

Schedule 7 gives an overview of all existing and currently planned POST Technologies POPs and their assignment to a regional exchange point.

An eligibility file showing the associated regional exchange point for each end user address will be available on POST technologies' Website.

In case of any changes in the assignment of POPs and End User addresses, in accordance with Regulation ILR/T20/5 POST Technologies will notify the Operators five (5) years in advance if these changes affect any Operator's active Leased Line Services and one (1) year in advance if no active Leased Line services are impacted.

Ethernet Half-Circuits as described in this ROLLS can only be connected to one unique regional exchange point which has been assigned to the End User address. In case the Operator requires circuits to terminate at a different exchange point or a different location (e.g. for redundancy purposes), POST Technologies will offer such circuits on a commercial basis.

Two types of regional interconnections will be available :

- (i) 10GBase-LR LAN PHY, 1310 nm
- (ii) 100GBASE-LR4, 1310 nm

The Ethernet ports used for the regional interconnection will be configured by default in link aggregation mode using the Link Aggregation Control Protocol (LACP) in order to facilitate adding another port of the same type to increase interconnection bandwidth.

2.3. Ethernet Half-Circuits Specifications

Ethernet Half-Circuits are circuits which allow the Operator to connect to POST Technologies' Metro Ethernet network thereby gaining access to all End User locations connected to it and exchanging Ethernet-based traffic with End Customers in order to provide them with end-to-end connectivity or other value-added services.

Various bandwidth profiles, as specified in the table below, are available in this ROLLS for these regional Ethernet-based Leased Line Services, which will be referred to as Regional Ethernet Half-Circuits (REHC). Availability of these profiles depends on the infrastructure (copper, fibre) available at the End User's site and, in case of copper infrastructures, on the distance between the End User's Premises and the nearest network aggregation points.

While bandwidths above 100 Mbps are currently only available on fibre infrastructures (FTTH or FTTO), bandwidths up to 100 Mbps may also be built using multiple copper pairs and DSL bonding technologies in case no fibre is available at a given site.

Service Profile	Symmetrical bandwidth
REHC 2M	2 Mbps
REHC 4M	4 Mbps
REHC 6M	6 Mbps
REHC 8M	8 Mbps
REHC 10M	10 Mbps
REHC 20M	20 Mbps
REHC 30M	30 Mbps
REHC 50M	50 Mbps
REHC 100M	100 Mbps
REHC 200M	200 Mbps
REHC 300M	300 Mbps
REHC 400M	40 Mbps
REHC 500M	500 Mbps
REHC 1G	1Gbps
REHC 2G	2 Gbps
REHC 3G	3Gbps
REHC 4G	4 Gbps
REHC 5G	5 Gbps
REHC 10G	10 Gbps

Table 1 : Service Profiles with symmetrical bandwidth for Regional Ethernet Half-Circuits (REHC)

If an Operator has a frequent request for other bandwidth profiles, then this Operator may contact POST Technologies in order to add these specific bandwidths to the list of standard service profiles for Ethernet Half-Circuits.

A specific Service Profile for an Ethernet Half-Circuit will only be eligible, if the bandwidth as specified in the table above can be guaranteed on the physical Access Line (downstream and upstream).

In case an activated fibre infrastructure exists at the End User's site, copper infrastructures will not be eligible for new Ethernet Half-Circuits even if a copper infrastructure is still active at this site or in use for existing services.

An Ethernet Half-Circuit terminates towards the End User on a Fast Ethernet (RJ45), Gigabit Ethernet (RJ45 or optical) or 10Gigabit Ethernet (optical) port of a NTU (Network Termination Unit) and towards the Operator in a VLAN dedicated to this Ethernet Half-Circuit and identified by its VLAN tag (S-tag) on the regional interconnection. At the End User's premises the NTU will be installed in close proximity to the NTP or FO-NTP (i.e. without any additional in-house cabling infrastructure other than patchcords).

The Ethernet Half-Circuits are transparent to all Layer 3 protocols. Layer 3 QoS markings configured by the Operator will be transmitted between the NTU at the End User's premises and the regional interconnection point at the Operator side in a transparent way without any alterations.

Standard MTU size for Ethernet Half-Circuits will be 2000 bytes. Depending on deployed equipment in the access network, MTU size might be limited to 1548 in some exceptional cases. Jumbo frames will be supported on request.

Ethernet Half-Circuits always deliver the guaranteed capacity/bandwidth as specified in the Service Profile. The full usage of this guaranteed bandwidth is included in the pricing as specified in Schedule 6. No additional billing based on actual usage will be carried out for Leased Line Services.

POST Technologies guarantees that Ethernet Half-Circuits comply with the following QoS (Quality of Service) parameters between the NTU and the regional interconnection:

- For fiber-based circuits:
 - Frame loss < 0,01 %
 - Frame delay < 10 ms
 - Frame delay variation < 5 ms

- For copper-based circuits:
 - Frame loss < 0,01 % in case of circuits built on SHDSL connections, < 0,1 % in case of circuits built using other technologies
 - Frame delay < 25 ms
 - Frame delay variation < 10 ms

Copper-based Ethernet Half-Circuits will be built on SHDSL connections if possible on existing infrastructures.

2.4. Maps

The Operator can request maps which give a detailed overview of the path of the fiber and/or copper infrastructure between the End User's site and POST Technologies' local exchange the site is connected to. These maps will allow the Operator to verify if the proposed circuit's routing fulfils specific redundancy requests in order for the Operator to guarantee enhanced service availabilities.

The map will be delivered in the KMZ/KML file format which can be viewed in the Google Earth application.

Two types of maps will be available which the Operator can choose from:

- (i) Basic map – this map will depict the path used for the proposed or existing circuit with straight lines between each of the passive network's connection points (e.g. splice chambers, etc.). This file is generated semi-automatically.

- (ii) Enhanced map – for further accuracy and detailed representation, this map will be drawn by hand and follow the exact path of the cables, allowing for higher granularity and representation of curves instead of straight segments.

Maps can be requested at the offer stage as well as for active circuits.

2.5. Service Termination

In case of a network migration that causes POST Technologies to abandon existing infrastructures, close existing sites (e.g. Local Exchanges, street cabinets) and to terminate the delivery of existing Leased Line Services or services contracted via the previously available RIO offer delivered via these sites and specific infrastructures, POST Technologies will notify the concerned Operators one (1) year in advance in case of a site where no Operator is present and five (5) years in advance in case of sites where an Operator is present. The list of the concerned sites is published on POST Technologies' Website and is updated regularly. It is the responsibility of the Operator to regularly consult POST Technologies' Website in this respect.

Schedule 3 Planning, Ordering and Provisioning

3.1. Forecasting

Providing new Leased Line Services to Operators as specified in this ROLLS is a very labour intensive activity. The volume of activity depends mainly on the commercial activity of the different Operators without any direct influence from POST Technologies. To allow proper planning of POST Technologies' production capacity and of its workforce allocation as well as to respond to the demand within the indicated time limits while avoiding bottlenecks, an accurate forecasting of the required provisioning, based on historical data from POST Technologies' systems and in some cases from Operators concerned, is essential.

To organize its workforce, POST Technologies will use a rolling forecast based on the orders received during the last 3-month period. No committed forecasts have to be provided by the Operator. POST Technologies will respect the installation time as specified in paragraphs 3.3.2 and 3.3.3 if the deviation from the aforementioned rolling forecast is less than 10%.

In case of major problems reported by an Operator, POST Technologies will provide, on request, to the ILR the detailed figures regarding the Operator's orders as well as the orders of POST Luxembourg's retail entity. In this case, the reason for major variations in the number of orders placed either by an Operator or POST Luxembourg's retail entity have to be provided, on request, to the ILR.

In case an Operator foresees a substantial increase in orders for Leased Line Services, POST Technologies will do every possible effort to respect the installation time as specified in paragraph 3.3.3 by adapting the necessary workforce as far as the Operator informs POST Technologies by mail hereof at least 3 months in advance.

3.2. Procedures for Regional Interconnections

Each order for a regional interconnection has to be sent by the Operator to the following address

order.technologies@post.lu

and shall contain at least the following information:

- (i) Operator's name;
- (ii) Operator's contact point for this specific project including related e-mail address and telephone number;
- (iii) Address of the location where the regional interconnection shall be provided;
- (iv) Interface to be used;

POST Technologies shall confirm within five (5) business days the receipt of every firm order for a regional interconnection and shall indicate an estimated ready for service date.

POST Technologies shall inform the Operator by e-mail as soon as the regional interconnections are ready for service on POST Technologies' side.

3.3. Procedures for Leased Line Services

3.3.1. Initial Request, Feasibility Check and Ordering

POST Technologies will provide via its website an eligibility file which will mention for each End User address the regional exchange point where the Ethernet Half-Circuit will be terminated.

To cover all available technical options for the provision of higher-bandwidth Leased Line Services, feasibility checks will be performed by POST Technologies upon receiving detailed information about the End User's location. Feasibility studies can also be requested in order to connect a building to POST Technologies' FTTO fibre network or to expedite its planned connection to POST Technologies' FTTH fibre network. The Operator may also request a map of the fiber (or copper) path between the End User's premises and the local exchange the End User site is connected to, this path being the one that will be used for the routing of the proposed half-circuit or which is already in use for a half-circuit as purchased by the Operator.

The Operator shall send such request via e-mail to POST Technologies at the following address :

quote.technologies@post.lu

This request must contain at least the following information:

- (i) Operator's name;
- (ii) Operator's contact point for this specific request including related e-mail address and telephone number;
- (iii) address of the site/building to be connected via a Leased Line Service;
- (iv) requested Leased Line Service Profile.
- (v) request for a map of the proposed Ethernet Half-Circuit as well as the type of map required (Basic/Enhanced), in case of existing circuits the reference/identifier of the circuit – please note : the request for a map will be considered as a firm order for this type of service and will be invoiced accordingly.

POST Technologies will perform a detailed analysis and submit an answer with the available Service Profiles to the Operator within a period of five (5) Working Days if no site survey is required. POST Technologies cannot commit to extend, modify or adapt its Network to enable the provision of a specific Leased Line Service Profile.

In case the building needs to be connected to POST Technologies' Network, POST Technologies will send a quote to the Operator mentioning the costs and the approximate lead time for the related civil works.

In case the Operator orders this building's connection to POST Technologies' Network on behalf of the End User, the related costs will be billed to the Operator. The End User has to confirm in writing to the Operator his/her being informed that the equipment and infrastructure installed in relation with the building's connection to POST Technologies' Network remains the property of POST Technologies and can also be used to provide services to other Operators and/or End Users.

Upon first request, notably in case of doubt or claim, the Operator shall provide to POST Technologies within a maximum of five (5) Working Days, a copy of the above-mentioned confirmation.

POST Technologies will provide information to the Operator about the type of infrastructure which will be deployed at the End User's premises (fibre and/or copper) and the Leased Line Service Profiles which will be available upon completion of the underground connection.

The End User shall directly order any services requiring a Leased Line Service from his/her Operator, which shall then order the Leased Line Service from POST Technologies. Before signing a contract with the End User, the Operator shall inform him/her of the procedures and responsibilities related to the new service and the impact the Leased Line Service may have on his/her existing telecommunication services. POST Technologies will in no case accept or handle any order for a Leased Line Service issued directly by an Operator's End User. The Operator will be POST Technologies' single point of contact regarding orders for Leased Line Services.

The Operator will send any firm order for a new Leased Line Service or the modification or cancellation of an existing Leased Line Service by e-mail to

order.technologies@post.lu

The order must contain at least the following information:

- (i) the Operator's name;
- (ii) the Operator's contact point for this specific request including related e-mail address and telephone number;
- (iii) in case of modifications, moves or cancellations the existing Leased Line Service reference number;
- (iv) the Leased Line Service Profile to be implemented;
- (v) End User installation address (for office buildings, datacenters or industrial sites: building, floor, room/rack, etc.);
- (vi) contact point with phone number and e-mail address of the End User, unless the Operator prefers POST Technologies not to enter in contact with the End User. In this case, the Operator's contact point mentioned under (ii) will be the sole contact point for arranging on-site interventions (site surveys, installations, etc.).
- (vii) in case of non-standard installations, reference of the feasibility check and acknowledgment of the additional costs;
- (viii) if required, request for the feasibility check of a Rush Order.

Similar requests may be grouped within the same order to allow mass processing.

Orders will be deemed invalid when they either do not include all required mandatory information as specified in the above-mentioned documentation and/or contain erroneous or incompatible information. Any invalid orders will be rejected and not be processed by POST Technologies, which shall inform the Operator thereof. POST Technologies shall not be held liable for any delays caused in this way nor for any consequences arising out of or in relation to such an order rejection.

In case POST Technologies validates and accepts the Operator's request, POST Technologies will send a confirmation to the Operator and reserve the physical infrastructure (e.g. fibre, copper pair) necessary for the realisation of the Leased Line Service. POST Technologies will provide to the Operator an order reference and a Leased Line Service reference number.

POST Technologies will make every effort to respond to ninety-five percent (95%) of all requests received for Leased Line Services within a period of five (5) Working Days.

POST Technologies will handle the Operator's new orders, cancellations and/or change requests in a non-discriminatory way and based on the "first come - first served" principle.

If an Operator wants to cancel its order for a Leased Line Service after its formal submission, it shall do so by sending an e-mail to order.technologies@post.lu indicating POST Technologies' order reference and the Leased Line Service's reference number. The Operator will be charged according to the tariffs for cancellation of a Leased Line order before activation as defined in Schedule 6.

3.3.2. Installation Procedures for Leased Line Services

- (i) The standard installation of a new Leased Line Service by POST Technologies on behalf of the Operator expressly includes:
- (ii) the installation of the physical Access Line(s) via an existing NTP or FO-NTP at the End Customer's premises including the delivery, installation and configuration of eventually required xDSL modems or an ONT;
- (iii) the supply and installation in an existing rack or suitable environment, in close proximity to the NTP, FO-NTP or ONT at the End User's premises, of the NTU, which acts as demarcation device for the Leased Line Service delivered on one of its Ethernet interfaces;
- (iv) the supply and installation of the necessary patchcords and splitters to interconnect the NTU with the modem(s) and the existing NTP, or to interconnect the NTU with the ONT or the FO-NTP at the End User's premises, under strict exclusion of any internal cabling related supplies and/or services;
- (v) all works necessary to configure and test the Leased Line Service and connect the circuit from the demarcation point at the End User's premises (Ethernet interface of the NTU installed in close proximity to the NTP, FO-NTP or ONT) through to the regional point of interconnection;
- (vi) an initial site survey of the End User's premises (max. 1 hour) in order to determine the most suitable location for the installation of the equipment provided by POST Technologies (NTU, modems, ONT) and to verify whether the existing NTP or FO-NTP can be used or whether additional cabling works need to be carried out to enable the interconnection between the NTU and the (FO-)NTP.

The installation of a Leased Line Service by POST Technologies on behalf of the Operator expressly excludes:

- (i) any installation of new cabling, outlets and/or patchpanels at the End User's premises;
- (ii) installation of a new NTP or FO-NTP at the End User's premises
- (iii) activation of any additional services;
- (iv) configuration in whole or in part of the End User's Active Equipment;
- (v) any other task, works and/or duty not expressly included in the first list specified here above.

As most of the Leased Line Services are delivered to corporate End User's in multi-tenant buildings and/or dedicated IT rooms, an initial site survey is nearly always necessary to determine whether a new Leased Line Service can be installed without any modifications in the End User's IT environment. As mentioned before, only the connection of the NTU to the NTP, ONT or FO-NTP by means of patchcords is included in the installation services for Leased Line Services. If the NTU

cannot be installed in close proximity to the existing NTP, ONT or FO-NTP and installation of the NTU requires additional on-site or in-house cabling, these cabling works are the Operator's and/or the End User's responsibilities and will not be part of POST Technologies' scope of work.

230V/16A power supplies and earth connection have to be made available for the connection of POST Technologies' active equipment. All costs related to power consumption, rack space and/or footprints need to be borne by the Operator and/or its End User. POST Technologies has the right to refuse the installation if the Operator and/or the End User cannot provide a suitable environment compliant with the specifications for POST Technologies' equipment (e.g. operating temperature, humidity).

In case no modifications are required, POST Technologies will confirm an installation date while trying to comply with the preferred installation time as expressed by the Operator at the time of its order.

In case modifications or additional installations (e.g. new cabling or rack space required) are necessary to provide the Leased Line Service at the chosen location within the End User's premises, POST Technologies and the Operator in agreement with the End User will set a new time schedule for the installation of the Leased Line service.

If the modifications have not yet been carried out or only been carried out incompletely or incorrectly within the agreed time schedule, the Operator will inform POST Technologies thereof no later than 16:00 of the last business day before the agreed installation date. In case the Operator does not inform POST Technologies in time, POST Technologies will invoice the "no-show fee" as defined in Schedule 6.

In case the modifications on site require the installation by POST Technologies of a new NTP or FO-NTP at the End User's premises, POST Technologies will provide a quote within five (5) days to the Operator for the corresponding installation. While POST Technologies will include the supply and connection of the necessary cables in its quote, it will be the Operator's responsibility to ensure that the cables will be laid between the designated extremities within the premises. Upon receiving this quote, the Operator will have to confirm its acceptance by e-mail in order to re-validate the initial Leased Line order and to relaunch its provisioning process.

Leased Line Service installations will be carried out on Working Days between 8:00 and 12:00 and between 13:00 and 17:00.

The Operator will be notified by e-mail of the Leased Line Service activation and invoicing will start on the activation date mentioned in this notification message.

POST Technologies will endeavour to achieve at least 95% of the Operator's requests for Leased Line Services, which do not require a non-standard installation or any modifications at the End User's premises, within a maximum of thirty (30) Working Days.

When delivering an Operator's first Half-Circuit to a particular regional exchange point, the installation of the regional interconnection in the co-location facilities of this exchange is required before the Half-Circuit can be delivered to the Operator.

Modification and move requests of an active Leased Line Service can be sent at any time by the Operator to POST Technologies after having carried out the necessary feasibility check for the new address or for bandwidth upgrades at the existing installation address.

If the activation of the new Leased Line Service Profile can be carried out remotely without any modifications of the installations and infrastructures at the End User's premises or any Network

modifications or upgrades, POST Technologies will inform the Operator thereof and proceed with the automatic activation of the new Leased Line Service Profile between 8:00 and 17:00 on the requested due date. In case installations have to be carried out on site or in case of a move to another site, the same procedures as for the installation of a new Leased Line Service will apply.

After activation, the Operator will be notified by e-mail and the invoicing will be switched to the new Leased Line Service on the date of the service modification.

A cancellation request for a Leased Line Service may be sent by the Operator to POST Technologies if so requested by the End User or in case of contractual breach by the End User. A Leased Line Service cancellation will be carried out within the timeframe agreed between the Parties. The due date for the cancellation of the Leased Line Service shall not exceed the period of 3 months from the day of receipt of the cancellation request.

In case the cancellation is carried out before the end of the initial minimum contract period for said Leased Line Service, the Operator will be charged for the entire remaining contract period.

The minimum contract period for all Leased Line Services is 12 months.

3.3.3. Lead Times for Leased Line Services

3.3.3.1. Lead Times for Standard Requests

The following table summarises the lead times for the various steps in the provisioning process leading up to the Leased Line Service activation.

Order type	Lead time
Maximum response time to a feasibility check for an Ethernet Half-Circuit	5 Working Days
Maximum response time to a request for a new connection of a building to POST Technologies' network (not requiring a site survey)	10 Working Days
Target activation date for a new Ethernet Half-Circuit from the date of order submission (built on existing infrastructure)	< 30 Working Days
Activation of an Ethernet Half-Circuit by a POST Technologies technical team with on-site installation (activation due date needs to be validated after site survey)	95 % of all installations will be carried out within the target activation period
Time period for executing 95 % of change requests for Leased Line Services not requiring on-site interventions or network upgrades/modifications	15 Working Days
Implementation of a regional interconnection at POST Technologies-sited co-location facilities	60 Working Days
Maximum lead time for the delivery of a map of the fiber/copper path between End User site and local exchange	5 Working Days

Table 2: Lead times for Leased Line Services

The invoicing of the Leased Line Service to the Operator will start on the date on which POST Technologies activates the Leased Line Service. An activation report will be sent to the Operator.

Please note : in case of a high number of simultaneous requests in the context of larger projects with a multitude of sites and circuits, the time needed for processing all these requests might be higher than the lead time mentioned in Table 2, especially in case of requesting additional maps for each circuit. In such exceptional cases, POST Technologies will communicate with the Operator and agree on a lead time which will allow the Operator to meet the End Customer's demands and allow POST Technologies the necessary time for delivering the services.

3.3.3.2. Rush Orders for Leased Line Services

An Operator may request a Rush Order for the activation of Leased Line Services.

POST Technologies offers 3 types of Rush Orders for Leased Line Services:

- (i) Type 1: Activation within 2 and 5 Working Days after validation of the related Rush Order
- (ii) Type 2: Activation within 6 and 10 Working Days after validation of the related Rush Order
- (iii) Type 3: Activation within 11 and 15 Working Days after validation of the related Rush Order

The Rush Order service will be invoiced according to the tariffs as set out in Schedule 6 of this ROLLS.

The Operator may request a feasibility check prior to sending a firm order for the required Leased Line Services. This request shall be sent by e-mail to

order.technologies@post.lu

containing the following information:

- (i) the mention of the words RUSH ORDER in the subject of the e-mail
- (ii) the Operator's name;
- (iii) the Operator's contact point for this specific request including related e-mail address and telephone number;
- (iv) in case of moves or modifications the existing Leased Line Service reference number;
- (v) the Leased Line Service Profile (and options) to be implemented;
- (vi) End User installation address (for office buildings, datacenters or industrial sites: building, floor, room/rack, etc.);
- (vii) contact point, phone number and e-mail address of the End User;
- (viii) type of Rush Order requested;
- (ix) preferred installation day and time.

POST Technologies will inform the Operator within one (1) Working Day about the feasibility of the requested expedite service activation unless the feasibility analysis requires a site survey. In that case POST Technologies will contact the Operator within one (1) Working Day after receiving the Operator's request in order to schedule an appointment for the related site survey. Feasibility checks for Rush Orders will be invoiced according to the tariffs as set out in Schedule 6.

The request for a feasibility check can also be sent together with the firm order for a Leased Line Service. In this case the order will only be validated after receiving the positive result of the feasibility check. In case the Operator's preferred installation day and time is not available, an alternative time slot will be proposed to the Operator. The Operator will have to confirm the proposed alternative rush order slot or confirm that the installation is to be carried out according to the standard lead times in order to validate the order.

The Operator has to ensure that the End User is informed of the exact date and time of the Rush Order installation, that access to the NTP, FO-NTP and/or ONT is guaranteed and that the in-house cabling at the End User's premises is ready. If the installation cannot be carried out by POST Technologies' staff because of reasons beyond POST Technologies' control (e.g. End User's absence, no access to the NTP/FO-NTP/ONT, cabling not ready), POST Technologies will duly report the cancellation of the Rush Order process to the Operator and activate the Leased Line Service within the standard lead times. The Rush Order, although failed, will be invoiced to the Operator.

3.4. Non-standard Requests

In case of non-standard requests related to Leased Line Services which demand either a feasibility study including a detailed analysis of the Operator's requirements as well as an evaluation of the technical and financial aspects of a tailor-made implementation and the potential impact on processes and operations or any other special requests (including the request of the Operator to obtain other profiles for Leased Line services than those laid down in the present ROLLS), POST Technologies will bill the supplementary efforts on an hourly basis as defined in Schedule 6 and will, subject to the outcome of the feasibility study or its assessment, make its best efforts to conclude an agreement with the Operator within a maximum of 3 (three) months after receiving from the Operator all the information required.

Schedule 4 Fault Repair and Reporting

4.1. POST Technologies' Fault Contact Point, Fault Acceptance and Billing

The Operator shall send a Fault Report to POST Technologies' Fault Contact Point (FCP) by creating a fault ticket via POST Technologies' "Service Portal".

The Service Portal allows the Operator to perform the following operations :

- (i) Create tickets
- (ii) Update tickets
- (iii) View tickets (list view and detailed view)
- (iv) Search tickets by service reference
- (v) Escalate tickets

For the time being, the Operator may also send an e-mail to the following address :

osc.technologies@post.lu.

In the future, the use of e-mail may be abandoned in favour of the exclusive use of the Service Portal for fault ticket creation.

Upon receipt of a valid Fault Report compliant to the minimum terms set forth below, POST Technologies shall send an email notification ("Incident Ticket Opening") related to a valid Fault Report to the Operator. To do so, the Operator shall provide POST Technologies with an e-mail address for the exchange of these notification messages. After fault resolution an e-mail notification ("Incident Ticket Closing") will be sent to the same address.

All related phone calls should be directed to POST Technologies' designated Fault Contact Point : +352 4991 5868.

Operator's Fault Reports will be accepted by POST Technologies 24 hours a day, 7 days a week.

Fault clearance for all Leased Line Services will be performed on a 24 hours a day, 365 days a year basis.

Fault clearance interventions will be billed by POST Technologies to the Operator as defined in Schedule 6.

Fault reporting and fault repairs shall be performed in compliance with the conditions and time schedules specified hereafter.

Only valid Fault Reports and accepted faults will be processed by POST Technologies. To be valid, a Fault Report shall contain the minimum information and data requested in the paragraphs below.

4.2. Fault Reporting to POST Technologies by the Operator

Prior to submitting a Fault Report, the Operator shall have to ensure that a genuine fault exists and that every effort has been made in advance to check that the fault resides within POST Technologies' area of responsibility.

In order to allow the diagnosis of the reported fault and to enable the progression of the fault until resolution, the Operator's Fault Report shall provide sufficient information including at least the following data:

- (i) POST Technologies' reference number of the Leased Line Service
- (ii) Contact point and phone number of the End User, unless the Operator does not approve of POST Technologies entering into direct contact with the End User. In this case the Operator indicates its own contact point and phone number for further investigations.
- (iii) Address of the End User
- (iv) Contact point and phone number of the Operator
- (v) Type of service affected
- (vi) Description of the reported fault
- (vii) Date and description of the intervention of the Operator's technician

The Operator may pass on any additional information it considers relevant to the Fault Report, while POST Technologies shall not be obliged to use such additional information, whichever may be the reason.

Incident Ticket Opening and Incident Ticket Closing notifications are automatically generated and triggered by POST Technologies' Leased Line Service reference number. If this field is not indicated in the Operator's Fault Report, no incident ticket will be opened, while the concerned Fault Report will be deemed invalid.

4.3. Fault Reporting to POST Technologies by the End User

The Operator has to inform the End User about the Operator's responsibility and timely communicate the Operator's own Fault Contact Point to the End User in order to prevent any abuse of POST Technologies' support services.

POST Technologies will not accept any Fault Report from the Operator's End Users. POST Technologies has no obligation to report to the Operator a fault that an End User would have directly reported to POST Technologies.

4.4. POST Technologies and Operator Liabilities for the Fault Clearance

If the Operator's Fault Report received by POST Technologies is valid and contains the minimum information requested, POST Technologies will issue an Incident Ticket Opening notification and start the fault localisation and fault clearance process during normal working hours. Upon detection of a fault on the Leased Line Service, POST Technologies will use all reasonable endeavours to repair the fault as soon as reasonably practicable.

Fault clearance shall be terminated within 4 hours following the Incident Ticket Opening except where the restoration of the Leased Line Service requires works of such importance that they need substantial works to be carried out (e.g. civil works, cable repair at street level, etc.) or that an appointment has to be made with the End User for an on-site intervention. Applicable tariffs for fault clearance are specified in Schedule 6.

The Operator shall cooperate with POST Technologies' reasonable requests in an effort to locate and, if possible, resolve any fault. In case contact with the End User is necessary for fault location

and/or restoration, POST Technologies reserves the right to contact and make an appointment with the Operator's End User for the restoration of the Leased Line Service, unless the Operator has not indicated an End User contact point in its Fault report. In this case POST Technologies will contact the Operator in order to fix an appointment at the End User's premises for further investigation and fault resolution. The time elapsed between the contact with the Operator or the End User and the scheduling of an appointment will not be considered for the fault repair time computation.

When POST Technologies believes that the fault has been cleared and the Leased Line Service is reestablished, an Incident Ticket Closing notification will be sent to the Operator. Unless the Operator rejects the concerned Incident Ticket Closing within four (4) hours after its receipt, the Incident Ticket and the related Fault Report will be closed automatically by POST Technologies.

If the Operator rejects the Incident Ticket Closing as specified above, it shall specifically provide the following information:

- (i) The reason why the Operator reasonably believes that the circuit is unsuitable for use of the Leased Line Service.
- (ii) All additional information that the Operator reasonably considers suitable to assist in understanding and diagnosing any underlying fault in the Leased Line Service.

The Operator shall cooperate with POST Technologies to carry out further tests, even on Operator's equipment when reasonably requested to do so. At its sole discretion, POST Technologies may carry out additional works upon the Operator's request, while the costs thereof shall be invoiced to the Operator.

Both Parties recognise and acknowledge that the fault repair time will commence when POST Technologies issues the Incident Ticket Opening and will end when POST Technologies issues the Incident Ticket Closing.

4.5. Wrongful Repair Request

A wrongful Fault Report occurs when POST Technologies has done all necessary measurements and test results prove that the quality of the Leased Line Services mentioned in the Fault Report or its underlying circuit is not the cause of the service interruption or service degradation.

In case of a repair where the detected fault lies outside the scope of POST Technologies' responsibility under this ROLLS or in case of a wrongful Fault Report, all costs related to works and travelling already performed by POST Technologies in relation to such Fault Report will be charged to the Operator.

4.6. End User's Liabilities

The Operator shall ensure that the End User(s) will timely grant POST Technologies' field technicians access to the demarcation point and/or network termination points within his/her premises as often as required for an efficient service restoration. In case POST Technologies cannot access the premises, POST Technologies will report this to the Operator, who will have to contact forthwith the End User and take the necessary arrangements to grant access to POST Technologies.

In case of the End User's absence at the agreed time of the appointment, POST Technologies' field technician will use the contact information (phone number) provided by the Operator to get

in touch with the End User while still on site. If the field technician cannot reach the End User, he/she will alert the Operator who may have additional means to contact the End User.

In case no access to the premises is granted by the End User or any other person entitled to do so after a maximum waiting time of 15 minutes after the initial appointment, POST Technologies' technician will leave the site, notify the Operator and leave a message requesting the Operator and/or the End User to contact POST Technologies' helpdesk to make a new appointment.

Schedule 5 Service Level Agreement

5.1. Service Level for Leased Line Service Provisioning

POST Technologies will make every effort to realise ninety-five percent (95%) of all activation requests received for Leased Line Services by one Operator on the due date as agreed with said Operator. If POST Technologies fails to provide the above-mentioned Leased Line Service in compliance with Schedule 3, the Operator will be granted a financial indemnity equivalent to one monthly fee for the Leased Line Service concerned, while should this delay fall beyond fifteen (15) calendar days, the said indemnity will be increased to be equivalent to two monthly fees for the Leased Line Services concerned.

No financial indemnity will be granted for delays in provisioning the Leased Line Service in case:

- (i) of a Force Majeure event;
- (ii) the Operator fails to claim the above-mentioned financial indemnity within thirty (30) calendar days as from the day after which the warranted provisioning time has elapsed; or
- (iii) POST Technologies has been prevented in whole or in part to intervene in due time to comply with the warranted provisioning time, notably due to the Operator's and/or the End User's act or omission.

The Operator can opt for priority handling by purchasing a "Rush Order" for each Leased Line Service concerned by means of an additional fee as set out in Schedule 6 and according to the procedures as described in paragraph 3.3.3.2, if time slots are available at the time of ordering.

5.1.1. Service Level for Leased Line Service Restoration

POST Technologies will attempt to reestablish Leased Line Services in accordance with the terms as specified in Table 3, except where the required clearance works are of such importance that they need substantial works to be carried out (e.g. civil works, cable repair at street level, etc.) or that an appointment with the End User has to be made in order to perform actions required to restore the services.

If POST Technologies fails to achieve service restoration within the above-mentioned time period while either the concerned fault and/or the restoration delay are within POST Technologies' sole responsibility, the Operator will be granted upon written express request with a financial indemnity.

Fault clearance for Leased Line Services will take place during regular business hours as well as outside of POST Technologies' business hours after a valid Fault Report has been submitted.

Fault clearance will be performed 24 hours a day, 7 days a week, for each Leased Line Service. Interventions will be invoiced according to the tariffs set out in Schedule 6.

The following table summarises the Service Level characteristics for all delivered Leased Line Services purchased under the terms of this ROLLS.

Service Level Parameter	Service Level Guarantee
Coverage *)	24/7 (incl. public holidays)
Repair time	4,0 hours
Quarterly availability	99,80 %

Table 3: Service Level parameters

*) Coverage: Period during which call-back, fault clearance and interventions will be performed

Service unavailability caused by previously announced planned maintenance interventions will not be considered for the quarterly availability calculation.

The following penalties will apply and be granted to the Operator in the form of a credit note in case the Service Level is not met. Availability, restoration time and penalties will be calculated for each Leased Line Service individually.

Service Level Parameter	Business
Availability calculation period	Quarterly
Availability	$\geq 99,60$ and $< 99,80$ %
Penalty	6 % of quarterly fee
Availability	$\geq 99,40$ and $< 99,60$ %
Penalty	12 % of quarterly fee
Availability	$\geq 99,20$ and $< 99,40$ %
Penalty	18 % of quarterly fee
Availability	$\geq 99,00$ and $< 99,20$ %
Penalty	24 % of quarterly fee
Availability	$< 99,00$ %
Penalty	30 % of quarterly fee

Table 4: Penalties in case of unavailability

Service Level Parameter	Business
Repair time (RT)	4,0 hours <RT≤ 8 hours
Penalty	1 monthly fee
Repair time (RT)	> 8 hours
Penalty	2 monthly fees

Table 5: Penalties in case of delayed repair time

The above provision shall not apply in case:

- (i) of a Force Majeure event;
- (ii) the Operator fails to claim the above-mentioned financial indemnity within thirty (30) calendar days as from the day after which the warranted intervention time has elapsed or thirty (30) days after the beginning of a new quarter or calendar year for indemnities related to the quarterly or yearly availability; or
- (iii) POST Technologies has been prevented in whole or in part to intervene in due time to comply with the warranted intervention time, notably due to the Operator's and/or the End User's act or omission.

Schedule 6 Tariffs

6.1.1. One-off Fees for Regional Ethernet Half-Circuits (REHC)

6.1.1.1. Activation Fees

Item	One-off fee (EUR excl. VAT)
One-off fee for installation of a new regional interconnection	1.500,-
One-off fee for modifying an existing regional interconnection	1.500,-
One-off fee for new standard Ethernet Half-Circuit installation on existing infrastructures, any bandwidth/service profile	675,-
Optical GE interface (1000 Base-SX or -LX) on NTU at End User site	300,-
Change of an existing Ethernet Half-Circuit, bandwidth downgrade or upgrade	200,-
Charges for moving an Ethernet Half-Circuit to a new address	same as new installation
Cancellation of an order before activation (more than 5 working days before due date for installation)	200,-
Cancellation of an order before activation (equal to or less than 5 working days before due date for installation)	500,-
No-show at scheduled installation date	200,-
Feasibility check for Ethernet Half-Circuit	9,21 *)
Request for quote for non-standard installation or new infrastructure (building entry/access and/or in-house (FO-)NTP)	120,- *)
Site survey (if required for a quote for non-standard installation or new infrastructure)	140,-

*) fee will be credited if followed by an order for the proposed installations

6.1.1.2. Maps

Item	One-off fee (EUR excl. VAT)
Basic map in KMZ format depicting fiber/copper path between End User site and local exchange for one Ethernet Half-Circuit	33,71
Enhanced map in KMZ format depicting fiber/copper path between End User site and local exchange for one Ethernet Half-Circuit	67,42

6.1.1.3. Rush Orders

Item	One-off fee (EUR excl. VAT)
Rush Order type 1 (within 2 - 5 Working Days)	2.000,-
Rush Order type 2 (within 6 – 10 Working Days)	1.500,-
Rush Order type 3 (within 11 - 15 Working Days)	1.000,-

6.1.1.4. Fault Repair

Item	One-off fee (EUR excl. VAT)
Fault in POST Technologies' Network	Free of charge
During business hours (8:00 – 17:00), fault in the Operator's Network	Invoiced per ¼ hour
Priority intervention Monday to Friday 7:00 – 19:00, Saturday 8:00 – 12:00, fault in the Operator's Network	Invoiced per ¼ hour Min. 250,- per intervention
Priority intervention Monday to Friday 0:00 – 7:00 and 19:00 – 24:00, Saturday 0:00 – 8:00 and 12:00 – 24:00, Sundays and public holidays, fault in the Operator's Network	Invoiced per ¼ hour Min. 500,- per intervention

6.1.1.5. Labour Costs

The currently applicable hourly rates related to labour costs are available on POST Technologies' Website.

6.1.2. Recurring Fees for Ethernet Half-Circuits

A discount scheme will be applied to the monthly fees for Ethernet Half-Circuits based on the contractual commitment made at the time of subscribing to such circuits.

The following table summarizes the monthly subscription fees for all proposed Service Profiles of standard-built Regional Ethernet Half-Circuits (REHC) depending of the chosen contract duration.

REHC Service Profile	Monthly Fee (EUR excl. VAT)
REHC 2 Mbps	73,-
REHC 4 Mbps	78,-
REHC 6 Mbps	83,-
REHC 8 Mbps	88,-
REHC 10 Mbps	93,-
REHC 20 Mbps	118,-
REHC 30 Mbps	143,-
REHC 50 Mbps	190,-
REHC 100 Mbps	307,-
REHC 200 Mbps	360,-
REHC 300 Mbps	412,-
REHC 400 Mbps	464,-
REHC 500 Mbps	517,-
REHC 600 Mbps	569,-
REHC 1 Gbps	779,-
REHC 2 Gbps	858,-
REHC 3 Gbps	938,-
REHC 4 Gbps	1.017,-
REHC 5 Gbps	1.097,-
REHC 10 Gbps	1.494,-

If an Operator has a frequent request for other bandwidth profiles, then this Operator may contact POST Technologies in order to add these specific bandwidths to the list of standard service profiles for Ethernet Half-Circuits. Pricing for these profiles will always be defined in compliance with the rules and formulas as found in Regulation ILR/T20/7.

The following discount scheme will be applied if the Operator commits to a long-term subscription:

Initial contract duration	1 year	2 years	3 years	4 years	5 years
Discount ≤ 100 Mbps	n/a	5%	10%	12,5%	15%
Discount > 100 Mbps	n/a	7,5%	15%	20%	25%

Schedule 7 Regional Interconnections

- Regional Exchange Point in **Center** region:
Luxembourg-Gare POP 148
19, rue de Reims L-2417 Luxembourg

Ethernet Half-Circuits terminating at End User sites connected to the following POPs will be handed over at the regional exchange point for the Center region :

POP Reference	City
FO-POP0120 / CT20	LUXEMBOURG (VILLE-HAUTE)
FO-POP0143 / CT43	LUXEMBOURG (KIRCHBERG)
FO-POP0144 / CT44	LUXEMBOURG (MERL)
FO-POP0148 / CT48	LUXEMBOURG (GARE)
FO-POP0892	HOWALD
FO-POP0983	LUXEMBOURG (CENTS)
FO-POP1145	HOWALD
FO-POP1157	LUXEMBOURG (BEGGEN)
FO-POP1158	LUXEMBOURG (HOLLERICH)
FO-POP1163	LUXEMBOURG (BONNEVOIE-SUD)
FO-POP1164	LUXEMBOURG (BONNEVOIE-SUD)
FO-POP1165	LUXEMBOURG (BONNEVOIE-NORD VERLORENKOST)
FO-POP1168	LUXEMBOURG (CESSANGE)
FO-POP1169	LUXEMBOURG (GASPERICH)
FO-POP1170	LUXEMBOURG (WEIMERSKIRCH)
FO-POP1173	LUXEMBOURG (GASPERICH)
FO-POP1179	LUXEMBOURG (ROLLINGERGRUND BELAIR-NORD)
FO-POP1219	LUXEMBOURG (KIRCHBERG)
FO-POP1232	LUXEMBOURG (CENTS)
FO-POP1238	LUXEMBOURG (MERL)
FO-POP1244 *)	LUXEMBOURG (BONNEVOIE-SUD)
FO-POP1245 *)	LUXEMBOURG (HOLLERICH)
FO-POP1246 *)	LUXEMBOURG (HOLLERICH)
FO-POP1247 *)	LUXEMBOURG (CESSANGE)
FO-POP1248 *)	LUXEMBOURG (CESSANGE)
FO-POP1249 *)	LUXEMBOURG (HOLLERICH)
FO-POP1254 *)	LUXEMBOURG (ROLLINGERGRUND BELAIR-NORD)

*) POP currently in planning phase

- Regional Exchange Point in **North** region:
Ettelbrück POP 281
71, rue de Bastogne L-9011 Ettelbrück

Ethernet Half-Circuits terminating at End User sites connected to the following POPs will be handed over at the regional exchange point for the North region :

POP Reference	City
FO-POP0180 / CT80	DIEKIRCH
FO-POP0184 / CT84	VIANDEN
FO-POP0185 / CT85	ROOST
FO-POP0186 / CT86	BEAUFORT
CT88	GROBBOUS
FO-POP0189 / CT89	GOESDORF
FO-POP0190 / CT90	HOSCHEID
FO-POP0193 / CT93	BASCHLEIDEN
FO-POP0194 / CT94	HAMIVILLE
FO-POP0195 / CT95	WILTZ
FO-POP0197 / CT97	BINSFELD
CT81	ETTELBRUCK
FO-POP0281	ETTELBRUCK
CT91	NEIDHAUSEN
FO-POP0291	NEIDHAUSEN
FO-POP0886	HEINERSCHIED
FO-POP0887	HULDANGE
FO-POP0888	WEISWAMPACH
FO-POP0889	PINTSCH
FO-POP0890	MARNACH
FO-POP0891	DRAUFFELT
FO-POP0899	WAHL
FO-POP1117	NIEDERFEULEN
FO-POP1146	HOLZTHUM
FO-POP1154	LENTZWEILER
FO-POP1191	WARKEN
FO-POP1213	CLERVAUX
FO-POP1215	DIEKIRCH
FO-POP1218	HEIDERSCHIED
FO-POP1243	SCHIEREN
FO-POP1250 *)	WILTZ

*) POP currently in planning phase

- Regional Exchange Point in **Center-West** region:
Beckerich POP 261
2A, Jos Seyler Strooss L-8522 Beckerich

Ethernet Half-Circuits terminating at End User sites connected to the following POPs will be handed over at the regional exchange point for the Center-West region :

POP Reference	City
FO-POP0130 / CT30	KEHLEN
FO-POP0139 / CT39	STEINFORT
FO-POP0163 / CT63	SCHWEBACH
FO-POP0164 / CT64	RIESENHOF
CT31	STRASSEN
FO-POP0231	STRASSEN
CT61	REDANGE-SUR-ATTERT
FO-POP0261	BECKERICH
FO-POP0896	BUSCHDORF
FO-POP1118	BERTRANGE
FO-POP1123	BRIDEL
FO-POP1135	EISCHEN
FO-POP1192	PERLE
FO-POP1225	CAPELLEN
FO-POP1229	MAMER
FO-POP1231	BERTRANGE
FO-POP1234	REDANGE-SUR-ATTERT
FO-POP1240	BETTORN
FO-POP1252 *)	OLM

*) POP currently in planning phase

- Regional Exchange Point in **Center-East** region:
Wecker POP 171
4, Härebiërg L-6868 Wecker

Ethernet Half-Circuits terminating at End User sites connected to the following POPs will be handed over at the regional exchange point for the Center-East region :

POP Reference	City
FO-POP0132	ROLLINGEN
FO-POP0133	HEISDORF
FO-POP0134	SENNINGEN
FO-POP0171	WECKER
FO-POP0173	HINKEL
FO-POP0187	LAROCLETTE
CT72	ECHTERNACH
FO-POP0272	ECHTERNACH
CT74	WASSERBILLIG
FO-POP0274	WASSERBILLIG
CT75	GREVENMACHER
FO-POP0275	GREVENMACHER
CT77	ROODT-SUR-SYRE
FO-POP0277	ROODT-SUR-SYRE
CT78	JUNGLINSTER
FO-POP0278	JUNGLINSTER
CT79	CONSDORF
FO-POP0279	CONSDORF
FO-POP1156	LORENTZWEILER
FO-POP1196	MERSCH
FO-POP1199	BERELDANGE
FO-POP1236	GREVENMACHER

- Regional Exchange Point in **Southwest** region:
Esch-Wobrecken POP 155
69, rue Arthur Useldinger L-4351 Luxembourg

Ethernet Half-Circuits terminating at End User sites connected to the following POPs will be handed over at the regional exchange point for the Southwest region :

POP Reference	City
FO-POP0138 / CT38	GARNICH
FO-POP0150 / CT50	PETANGE
FO-POP0153 / CT53	ESCH-SUR-ALZETTE (BRILL)
FO-POP0155 / CT55	ESCH-SUR-ALZETTE (FETTMETH)
FO-POP0156 / CT56	TETANGE
CT58	DIFFERDANGE
FO-POP0159 / CT59	BELVAUX
CT37	RECKANGE-SUR-MESS
FO-POP0237	RECKANGE-SUR-MESS
FO-POP0898	CLEMENCY
FO-POP1101	BASCHARAGE
FO-POP1102	BASCHARAGE
FO-POP1103	HAUTCHARAGE
FO-POP1105	DIFFERDANGE
FO-POP1115	RUMELANGE
FO-POP1116	SCHIFFFLANGE
FO-POP1126	OBERKORN
FO-POP1127	NIEDERKORN
FO-POP1128	NIEDERKORN
FO-POP1131	DIPPACH
FO-POP1140	BELVAUX
FO-POP1149	KAYL
FO-POP1151	LAMADELAINE
FO-POP1155	LEUDELANGE
FO-POP1183	PETANGE
FO-POP1184	RODANGE
FO-POP1186	SCHIFFFLANGE
FO-POP1208	SANEM
FO-POP1222	OBERKORN
FO-POP1224	NIEDERKORN
FO-POP1227	MONDERCANGE
FO-POP1242	BELVAUX
FO-POP1253 *)	ESCH-SUR-ALZETTE (GRENZ)

*) POP currently in planning phase

- Regional Exchange Point in **Southeast** region:
Alzingen POP 136
483, route de Thionville L-5887 Alzingen

Ethernet Half-Circuits terminating at End User sites connected to the following POPs will be handed over at the regional exchange point for the Southeast region :

POP Reference	City
FO-POP0135 / CT35	OETRANGE
FO-POP0136 / CT36	ALZINGEN
FO-POP0151 / CT51	DUDELANGE
CT60	REMERSCHEN
FO-POP0169 / CT69	REMICH
CT67	FILSDORF
FO-POP0267	DALHEIM
CT76	WORMELDANGE
FO-POP0276	WORMELDANGE-HAUT
FO-POP0904	MONDORF-LES-BAINS
FO-POP1109	BETTEMBOURG
FO-POP1111	DUDELANGE
FO-POP1120	BETTEMBOURG
FO-POP1124	CANACH
FO-POP1125	ROESER
FO-POP1129	HESPERANGE
FO-POP1132	DUDELANGE
FO-POP1133	DUDELANGE
FO-POP1143	FENTANGE
FO-POP1144	FRISANGE
FO-POP1147	HUNCHERANGE
FO-POP1182	MOUTFORT
FO-POP1185	SANDWEILER
FO-POP1239	REMERSCHEN
FO-POP1241	BOUS
FO-POP1251 *)	DUDELANGE

*) POP currently in planning phase