

RCO

Reference Co-Location Offer

Version 2.0.2

Date	Status
27/03/2015	Version dated 27/03/2015 before public consultation
02/06/2015	Version dated 02/06/2015 for public consultation
31/07/2015	Version dated 31/07/2015 for public consultation with modifications based on comments received during 1 st public consultation
01/10/2015	Version dated 01/10/2015
21/08/2018	Draft version dated 21/08/2018 for publication and consultation
01/11/2018	Version applicable as of 01/11/2018
03/09/2019	Version 2.0 awaiting public consultation
27/09/2019	Version 2.0.1 for public consultation
11/12/2019	Version 2.0.2 applicable as of 01/01/2020

Summary

1. RCO Legal Terms	4
1.1. Services covered	4
1.2. Definition and Interpretation Rules	4
1.3. Term	5
1.4. Amendments	6
1.5. RCO Tariffs	6
1.6. Billing	6
1.7. POST Technologies' General Powers	7
1.8. Limitation Of Liability	8
1.9. Property	8
1.10. Information exchange, Confidentiality	9
2. Procedure For Reaching A Co-Location Agreement	12
3. Definitions	13
Schedule 1. Service Description	18
1.1. Description of the Co-Location Services	18
1.2. Limitation of the Co-Location Services provided by POST Technologies	18
Schedule 2. Co-Location types and provisioning	19
2.1. Co-Location Rack Space in an Area POP (POP type A)	19
2.2. Co-Location within an existing POST Technologies' Co-Location Equipment Room (POP type B)	22
2.3. Adjacent Co-Location (POP type C) and Distant Co-Location	27
2.4. POST Technologies' refusal of an Operator's Co-Location Request	29
2.5. Tie Cables and Rack Connecton Facilities (RCF) within Co-Location Equipment Rooms (POP Type B) and Co-Location Shelters (POP type C)	29
2.6. Operator Rack Connection within Area POPs (POP type A)	30
2.7. Lead times	31
Schedule 3. Space allocation, installation and use rules	32
3.1. Co-Location Space allocation	32
3.2. Installation rules	32
3.3. Characteristics of Operator supplied racks and equipment to be co-located	33
3.4. Access conditions for Operator's staff	33
3.5. Security	34



3.6. Safety Standards	36
3.7. Use rules	37
3.8. Fault Report	37
3.9. Operator's breach of applicable Co-Location rules	37
Schedule 4. Co-Location ceasing process	39
4.1. Ceasing process further to Operator's request	39
4.2. Ceasing process further to POST Technologies' request	39
4.3. Ceasing process further to the termination of implementation agreement(s) and/or of the Operator's telecommunications license	40
4.4. Common steps to be achieved in case of any ceasing process	41
Schedule 5. Tariffs	42
5.1. Physical Co-Location in a POST Technologies' Co-Location Equipment Room	42
5.2. Physical Co-Location in an Area POP	43
5.3. Other Facilities	44
5.4. Tie Cables and Rack Connection Facilities (RCF)	45

1. RCO Legal Terms

This RCO defines the terms and conditions, which shall apply and be granted by POST Technologies to Operators for the provisioning of POST Technologies' Co-Location Services required by Regulation ILR/T19/3 and ILR/T19/4.

All Schedules attached to this RCO form an integral part hereof and detail the different Co-Location Services and their respective applicable provisioning terms offered by POST Technologies under this RCO.

The Interconnection, Broadband and/or LLU Services (or any part thereof) as from time to time referred to in this RCO are part of and subject to, as the case may be, the applicable Reference Offers and shall be provided by POST Technologies to the Operators in compliance with the specific terms and conditions of the said Reference Offers, it being specified that the terms and conditions of this RCO shall in any case prevail on the said Reference Offers to the widest extent possible in respect to the Co-Location Services.

As from the effective date of Co-Location Agreement the Operator is subject to this RCO 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 14/177/ILR.

This RCO does not purport to diminish the rights of Operators to seek additional services, or POST Technologies' obligation to provide additional services under applicable law.

Apart from this RCO, 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 RCO defines the minimal terms and conditions for Co-Location Services which POST Technologies will grant to Operators.

The Co-Location Services offer the possibility for a given Operator to locate its own transmission equipment within a dedicated Co-Location Space in a POST Technologies' Site directly or in an adjacent facility to such a POST Technologies' Site or adjacent to a SLCP for enabling the said Operator to perform and access Interconnection Services, to access LLU Services and/or to access Broadband Services as defined by the Law as well as by the RIO, RUO and the ROB.

A detailed description of these services is provided in Schedule 2.

Co-Location 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 RCO.

1.2. Definition and Interpretation Rules

1.10.1. Definitions

Unless expressly stated otherwise:

- (i) References to an article are references to an article of the RCO, while references to clauses and schedules are to the clauses and schedules of the RCO; 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 RCO or in the Co-Location 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 RCO or the Co-Location Agreement on a person not to do something includes an obligation not to agree or allow that thing to be done.

1.10.2. 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 RCO and/or the Co-Location Agreement, the general conditions of the POST Technologies, which can be consulted on POST Technologies' Website, will apply to the provision of the Co-Location Services.

Unless expressly defined otherwise hereafter (in particular in Schedule 1 – Definitions below), the terms used in this RCO 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 RCO is valid as from the date of its definitive publication in accordance with Regulation 14/177/ILR unless the ILR advises otherwise or unless:

- (i) a new RCO is published or adopted by POST Technologies, in compliance with Regulation 14/177/ILR, 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 RCO inapplicable or unenforceable.

1.4. Amendments

In accordance with Regulation 14/177/ILR the content of this RCO 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 RCO or the adoption of a new RCO to be undertaken by POST Technologies in compliance with the applicable procedural rules and regulations.

1.5. RCO Tariffs

In counterpart of the Co-Location Services provided by POST Technologies to the Operator under this RCO, the Operator shall pay the tariffs provided for in Schedule 5 - [Tariffs](#).

All prices mentioned in this RCO, 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.

POST Technologies may revise the RCO Tariffs at any time after having definitively published the reviewed RCO Tariffs in accordance with Regulation 14/177/ILR.

If any RCO Tariff or the means and/or methods of calculating such RCO Tariff is subject to a legal review by the ILR or with any other administrative or judicial authority, the concerned RCO 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 RCO Tariff or a RCO Tariff calculation method to be unlawful then POST Technologies shall make any necessary alterations to RCO Tariffs for the future.

1.6. Billing

The Operator undertakes to pay all invoices in relation to this Co-Location Agreement in EURO (€) and within the payment period specified on the relevant invoice(s).

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 €:

- before POST Technologies' acceptance of any order in case the Operator's creditworthiness appears to be not sufficient for the Co-Location Services to be provided by POST Technologies; or in case
- the Operator has had repetitive credit defaults in the past towards POST Technologies, whichever may be the type of services concerned;
- the Operator fails to make payment to POST Technologies of any undisputed amount when due in relation to the Co-Location Services; or
- 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 Co-Location 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 which can be prolonged until all invoices and other sums (e.g., for damage to POST Technologies' property) due are paid.

Without limiting its responsibilities under this RCO and the Co-Location Agreement to be signed for an Area POP, the Operator undertakes to properly and duly insure at its own expense against the risks that it is exposed to with regard to damage (in particular damage to POST Technologies' property and injury to persons including death) arising out of its obligations, including those of any affiliate undertakings or subcontractors.

The Operator shall produce to POST Technologies, upon first request, evidence of the insurance policies obtained.

1.7. POST Technologies' General Powers

Occasionally, POST Technologies, acting reasonably, may suspend services as described in this RCO for any of the following reasons:

- If required by a duly authorized national or regional authority duly authorized and empowered to do so, or
- For the purpose of repair, maintenance and/or improvement of any of POST Technologies' telecommunication systems and telecommunications apparatus.

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 Co-Location Services as soon as possible after the concerned temporary suspension.

POST Technologies shall have the right to disconnect the concerned 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.

Without prejudice to the foregoing clause, POST Technologies shall have the right to request the Operator to disconnect any concerned 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 POST Technologies' Site, SLCP, Co-Location Space or POST Technologies' telecommunications apparatus or any other property or if such exposure or damage is or may be imminent. POST Technologies will immediately notify the Operator of the circumstances in which such concerned 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.

POST Technologies shall not be liable to the Operator for any loss, damage or injury arising due to POST Technologies' action in disconnecting the concerned equipment or for any interruption to the telecommunication service carried out by the Operator using the concerned equipment howsoever caused, except where the loss damage or injury is caused directly due to POST Technologies' gross negligence.

In the event of a disconnection in accordance with the above, the Operator shall not reconnect the concerned 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 concerned equipment.

The foregoing is without prejudice to the rules and specifications as laid out in Schedule 3 - [Space allocation, installation and use rules](#).

1.8. Limitation Of Liability

Except otherwise agreed, both parties have no obligation of any kind to the other Party beyond the obligations to exercise the reasonable skill and care of a competent telecommunications operator in performing its obligations under the RCO and the Co-Location Agreement.

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.

Neither POST Technologies nor the Operator excludes or restricts its liability for death or personal injury caused by its own negligence or liability.

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.

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 RCO and the relevant Co-Location Agreement, howsoever caused.

1.9. Property

All relevant infrastructures and equipment used by POST Technologies for the provision of Co-Location Services to the Operator remains 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 the Co-Location 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 extent thereof by the Operator 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 Co-Location Services by the Operator, 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 Co-Location

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.

The foregoing is without prejudice to the rules and specifications as laid out in Schedule 4 - [Co-Location ceasing process](#).

1.10. Information exchange, Confidentiality

- 1.10.3. In order to implement the RCO and the Colocation 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.
- 1.10.4. 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.
- 1.10.5. 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 Co-Location Agreement and/or the Co-Location 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.

1.10.6. 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 Co-Location Agreement.

1.10.7. This Article 1.10 shall nevertheless not prevent or refrain any Party from complying with its legal information obligations.

1.10.8. 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.

1.10.9. 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 1.10 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.

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

1.10.11. The Parties agree that the provisions strictly relating to confidentiality set forth in this Article 1.10 shall survive any termination of the Co-Location Agreement, whichever may be the ground, for a three years (3) period as from the effective termination date of the Co-Location Agreement.

1.10.12. The Parties hereby declare and warrant that they comply with data protection and privacy laws, and any other laws in relation to the Co-Location 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. Procedure For Reaching A Co-Location Agreement

Co-Location 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 Co-Location Agreement in no less than fifteen (15) days after receipt of a valid request.

Any request for entering into a Co-Location Agreement with POST Technologies under this RCO must be made in writing and per registered mail to the following address:

POST Technologies
Département Développement et Vente en gros
2, rue Emile Bian
L-1235 Luxembourg
Tel: +352 49 91 1

3. Definitions

Defined Terms	Meaning
Adjacent Co-Location	Provision of an extension of the tie cables from an MDF/ODF in a given POST Technologies' Site or SLCP to the concerned Operator's co-location shelter installed on or close to of the said POST Technologies' Site or SLCP.
Area POP	Purpose-built Fibre POP for the connection of FTTH cables in a point-to-point topology (see also "Fibre POP")
Co-Location Agreement	The agreement between POST Technologies and the concerned Operator, including the Schedules and – if relevant – amendments thereto, covering Co-Location Services and which: (i) has already been executed prior to the entry into force of this RCO and shall be automatically amended thereby, or which (ii) will be later on executed for the purpose of and in compliance with this RCO, which shall be an integral part thereof.
Co-Location Equipment Room	Physical space in POST Technologies' technical building, SLCP or Co-Location Shelter allocated for the purpose of providing Co-Location Services to other Operators.
Co-Location Rack Space	Co-Location Space reserved for hardware mounting in the dedicated Operator racks in a POST Technologies Area POP, it being specified that the standard rack size is dimensioned to accept 21" and 19" equipment. POST Technologies only provides the rack. Hardware mounting structure as well as all other relevant facilities (such as patch panels, etc.) shall be provided, installed and maintained by the Operator under its entire responsibility.
Co-Location Request	The written request whereby an Operator formally requests to POST Technologies to carry out a Site Survey, if necessary, for Co-Location Services, as the case may be, at a given Co-Location Equipment Room or nearby a POST Technologies' SLCP in order for the Operator to be granted with allocated or reserved Co-Location Space(s) compliant with the Operator's specifications.
Co-Location Services	The provision by POST Technologies of physical space and technical facilities necessary to reasonably accommodate and connect the relevant equipment of an Operator.
Co-Location Shelter	Building or container housing telecom equipment provided by POST Technologies under this RCO close to an existing POST Technologies' Site, respectively close to SLCP
Co-Location Space	Specific physical space(s) and/or Co-Location Rack Space(s) reserved by POST Technologies in a given Co-Location Equipment Room or Area-POP for a given Operator according to the needs expressly specified by the latter.
Confidential Information	includes, without limitation, a) 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,

	<p>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,</p> <p>b) all third party information that the concerned Party and its Affiliates are obliged to keep confidential, as well as</p> <p>c) any possible combination of any of the above.</p> <p>and excludes information which:</p> <p>a) 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;</p> <p>b) 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;</p> <p>c) 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</p> <p>d) 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.</p>
Disclosing Party	The party in a Co-Location Agreement handing over Confidential Information.
Distant Co-Location	The co-location facility, generally under the Operator's responsibility, installed in the vicinity of the concerned POST Technologies' Site or SLCP.
End User	Any natural or legal person with whom POST Technologies or Operator(s) has entered into an agreement for the provision of publicly available telecommunication services.
ETS	European Telecommunication Standards.
Fault Report	The written report sent by Operator to POST Technologies in case of faults discovered in relation to any part of the Co-Location Services.
Fibre POP	<p>ODF site where the point-to-point FTTH fibre infrastructure is terminated. For the sake of clarity it should be noticed that existing Co-Location sites can also serve as termination point for the point-to-point fibre infrastructure.</p> <p>Three different Fibre POP types are defined: Type A) A POP in POST Technologies' FTTH network from which access to POST Technologies' point-to-point fibre optic local networks is granted. In general, a Fibre POP gives fibre access to customers in the</p>

	<p>proximity of this Fibre POP. The ODF, the Operator Racks and POST Technologies' Racks are in the same room and Co-Location services are provided via the provision of Co-Location Rack Space.</p> <p>This co-location type will also be referred to as "Area POP" in this document.</p> <p>Type B) An existing POST Technologies technical building with a dedicated Co-Location room where an intermediate optical distribution frame (FO-VZ) is installed and from which access to POST Technologies' point-to-point fibre optic local networks is granted. The FO-VZ is connected to the ODF installed in POST Technologies' technical buildings. The Operator will install its own racks on the footprint allocated by POST Technologies to the Operator within the co-location facility. Racks are connected to the ODF via the FO-VZ by the means of RCFs.</p> <p>This co-location type will be referred to as "Co-Location Equipment Room" in this document.</p> <p>Type C) An existing POST Technologies Site or SLCP without a dedicated Co-Location Room (e.g. DLU, LV, etc.) from which access to POST Technologies' point-to-point fibre optic local networks is granted but offering not enough space to co-locate the ODF, the Operator racks and POST Technologies' racks. In this case the Operator racks will be installed as outside shelters in the near vicinity of the POST Technologies technical building. The connection from the Operator's racks to POST Technologies' ODF or SLCP will be assured by means of RCFs or tie cables.</p> <p>This co-location type will be referred to as "Co-Location Shelter" in this document.</p>
FO	Fibre Optic.
FO-NTP – Network Termination Point	The termination point of the fibre optic section at the relevant End User's premises at which point the POST Technologies' access network ends.
FO-VZ	Intermediate optical distribution frame
Force Majeure	A force majeure event as defined in the GTCS
FTTH	Fibre To The Home.
GTCS	POST Technologies' General Terms and Conditions for Sale in force, which can be consulted on POST Technologies' Website
HU	Height Unit in a Rack
ILR – Institut Luxembourgeois de Régulation	<i>Institut Luxembourgeois de Régulation</i> , the national regulatory authority in Luxembourg in particular in the field of electronic communications networks and services.

Interconnect Agreement	The agreement between POST Technologies and the concerned Operator based on the applicable RIO for the provision of and access to Interconnection Services as defined in the said RIO.
Interconnection Services	Interconnection services as described in the applicable RIO.
Law	All relevant and applicable Luxembourg and EU legislations, including their respective implementation rules, regulations and decrees, in particular those applicable to the telecommunications sector and/or to the provision of telecommunications services.
LLU Services	Local Loop Unbundling services, including as the case may be metallic path facility or fibre access as defined in the applicable RUO.
Local Exchange	The telephony exchange closest to a given End User.
MDF – Main Distribution Frame	The termination point of the raw copper circuit in POST Technologies' Local Exchange building.
MPF – Metallic Path Facility	A twisted pair of fully metallic continuous unequipped copper wires on the section between POST Technologies' MDF at the POST Technologies Local Exchange and the relevant End User's address connected on a Network Termination Point if it exists.
NTP – Network Termination Point	The termination point of the raw copper or fibre optic section at the relevant End User's premises at which point the POST Technologies' access network ends.
ODF	Optical Distribution Frame
Operator	Any legal or natural person operating telecommunications networks and/or providing telecommunications services in Luxembourg as notified to the ILR and having entered into a Broadband Agreement, Unbundling Agreement, Interconnection Agreement and/or Co-Location Agreement with POST Technologies.
Party	As the case may be, either POST Technologies or the Operator with which a Co-Location Agreement for the provisioning of Co-Location Services by POST Technologies is (being) concluded.
Parties	POST Technologies and the Operator with which a Co-Location Agreement for the provisioning of Co-Location Services by POST Technologies is (being) concluded.
POST Technologies	Entreprise des Postes et des Télécommunications, an autonomous " <i>Etablissement public</i> " created by the " <i>Loi du 10 août 1992 portant création de l'Entreprise des Postes et Télécommunications</i> " as further modified by the « Loi du 15 mars 2016 ».
POST Technologies Infrastructure	The civil infrastructure of POST Technologies' network used in relation to or for the purpose of electronic communications, including ducts, splicing chambers, manholes, street cabinets, Co-Location Equipment Rooms, etc.
POST Technologies' Site	A site or building (technical building, Area POP) owned or rented by POST Technologies for the purpose of providing telecommunications services to End Users.

POST Technologies' Website	http://www.posttechnologies.lu/en/operators
RCF	Rack Connection Facilities
RCO – Reference Co-Location Offer	The present reference offer for Co-Location Services.
RIO – Reference Interconnection Offer	The applicable POST Technologies' reference offer for Interconnection Services currently in force.
ROB – Reference Offer for Broadband	The applicable POST Technologies' reference offer for Broadband Services currently in force.
ROLLS – Reference Offer for Leased Line Services	The applicable POST Technologies' reference offer for Leased Line Services currently in force.
RUO – Reference Unbundling Offer	The applicable POST Technologies' reference offer for LLU Services (copper and fibre) currently in force.
Receiving Party	The Party in an agreement receiving Confidential Information.
Schedule(s)	The schedule(s) attached to this RCO, as listed in its table of contents.
Shelter	Building or container housing telecom equipment.
Site Survey	The POST Technologies' Site investigation to be carried out by POST Technologies or by POST Technologies' subcontractors on a given Co-Location Equipment Room upon the Operator's serving of a Co-Location Request to provide the Operator as to the available Co-Location Services and/or Co-Location Space(s) either with POST Technologies' preliminary indications (initial Site Survey) or with detailed specifications after further investigations (full Site Survey).
SLCP(s) – Sub Loop Connection Point(s)	The relevant SLCP(s) referred to under the applicable RUO. The SLCP(s) refer to the street cabinets that allow sub-loop unbundling for copper or fibre services.
Street Cabinet	Generic word to describe the distributor allowing cross-connection between the feeder cable pairs and the distribution cable pairs.
Technical Information	Documentation about the technical characteristics related to this RCO and made available to the operators on POST Technologies' Website.
Tie Cables	Also referred to as Rack Connection Facilities. Cables connecting the MDF and ODF of POST Technologies' Local Exchange to the MDF and ODF of the Co-Location Equipment Room or Co-Location Shelter.
Transmission equipment	All type of equipment necessary in order to provide broadband, interconnection or voice services to End Users.
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.

Schedule 1. Service Description

1.1. Description of the Co-Location Services

The Co-Location Services shall:

- only be provided to an Operator, that has priority and validly concluded with POST Technologies an agreement based on a POST Technologies' Reference Offer explicitly mentioning the need of a POST Technologies' Co-Location facility.;
- be provided by POST Technologies to the Operator in accordance with the terms and conditions of this RCO;
- only be provided within or adjacent to an existing POST Technologies' Site or either adjacent to an SLCP. POST Technologies will not structurally change or build any new POST Technologies' Sites or Co-Location Equipment Room or a SLCP to provide such Co-Location Services or any additional Co-Location Space. If no existing floor space, for the purpose of Co-Location, is available anymore in the existing Co-Location Equipment Room, POST Technologies may with the assent of the first Operator(s) install a special outside Co-Location Shelter on its premises, which will serve as a Co-Location Equipment Room. This container can only be used by both Parties for the sole purposes of Co-Location Services and shall be shared with all Operators under the same terms and conditions as a Co-Location Equipment Room in an existing POST Technologies' Site.

1.2. Limitation of the Co-Location Services provided by POST Technologies

Co-Location Services provided by POST Technologies to a given Operator under this RCO shall be expressly limited, as relevant for the said Operator, to:

- POST Technologies' Sites having either a national or a regional interconnection as defined in the said RIO for the purpose of achieving interconnection, and/or
- POST Technologies' Sites and SLCPs suitable for LLU Services as defined in the applicable RUO for the purpose of achieving unbundling, and/or
- POST Technologies' Sites suitable for Broadband Access Services as defined in the applicable Reference Offer for the purpose of achieving Broadband Access, and/or
- POST Technologies' Sites suitable for Leased Line Services as defined in the applicable Reference Offer for the purpose of achieving access to Leased Line Services.

Schedule 2. Co-Location types and provisioning

There are four (4) types of Co-Location site configurations:

- Co-Location within an existing purpose-built POST Technologies Area POP (type A);
- Co-Location within an existing POST Technologies' Co-Location Equipment Room (type B);
- Co-Location in a Shelter adjacent to an existing POST Technologies' Site or either adjacent to an SLCP (type C); and/or
- Co-Location in an Operator's owned distant location site.

2.1. Co-Location Rack Space in an Area POP (POP type A)

2.1.1. Description

2.1.1.1. Co-Location Rack Space in an Area POP (POP Type A)

The Co-Location Rack Space within an existing purpose-built POST Technologies Area POP shall consist of a dedicated Operator Rack Space installed inside a POST Technologies Area POP – this rack space is a half rack. Each Co-Location Rack Space in an existing POST Technologies Area POP will be provided with 48 V DC power supply (up to 500 Watt per half rack). For sake of clarity it is to be noticed that the electric power consumption is not included in the per Rack Space tariff and will be billed as described in Schedule 5. Details and conditions of Co-Location rack space in Area POPs are the subject of the present RCO.

The following basic facilities shall be accessible in a POST Technologies Area POP:

- physical Co-Location Space as expressly allocated to or reserved for a given Operator being a Co-Location Rack Space in a dedicated Rack occupied by the physical equipment set installed by the Operator under the terms and conditions of this RCO
- relevant rights of access and access control for the Operator's staff;
- ducting on POST Technologies' property up to the border of the publicly owned land with the concerned POST Technologies' Area POP to provide the fibre facility link; and
- basic facilities as described in Article 2.1.2
- Optional facilities as defined in Article 2.1.3 hereof shall be accessible, subject to a separate order to be issued by the Operator to POST Technologies.

To allow the Operator to establish its own fibre optic links between its equipments in the POST Technologies Area POP and its main equipments, POST Technologies shall provide the following services on Operator's request:

- a multi-operators manhole on its property to enable the Operator to install its fibre optic cable;
- 2 micro ducts 14/10mm (outer/inner diameter) from the multi-operators manhole to each half-rack; the micro ducts will end on the bottom of the rack and enable the Operator to guide his cable from the manhole to his designated rack;

The Operator shall provide the fibre optic cable up to the cable duct(s) provided by POST Technologies;

The Operator shall bring its fibre optic cable through the micro duct(s) provided by POST Technologies from the multi-operators manhole into its Co-Location Space in the Area POP.

The Operator shall terminate its fibre optic cable in its Co-Location rack space.

For the avoidance of doubt, the above-mentioned installation of the fibre optic cable shall be done by the Operator. The Operator is not allowed to open the raised floor without supervision by POST Technologies. The costs for the provisioning by POST Technologies of the cable ducts, the manhole and the supervision shall be entirely charged to the Operator in compliance with the Schedule 5 below.

Other technical possibilities for the Operator's backbone links such as rental of POST Technologies ducts, POST Technologies dark fibre or transmission capacity are outside the scope of this offer.

2.1.2. Basic facilities of an Area POP

The costs for the provisioning of a Co-Location Rack Space, including the basic facilities, shall be charged to the Operator as specified in Schedule 5.

2.1.2.1. AC power supply for occasional use in an Area POP

230 VAC power supply is made available by POST Technologies solely for the purpose of occasional and temporary use by the Operator in order to install and/or to test an equipment, to maintain and/or to clean it, as well as for interventions related thereto, it being specified that such a 230 VAC power supply shall in no case be dedicated to a specific Operator.

One or more socket points will be provided per POST Technologies Area POP for standard 230 VAC, max 16A, unmonitored power supply.

2.1.2.2. Earthing

The earthing system available at a given POST Technologies Area POP will be in accordance with ETS 300 253 and ITU-T recommendation K.27. The minimum earthing facility will be a ring line in the POST Technologies Area POP that has multiple links to the building-based earthing facilities.

2.1.2.3. Climate Control in an Area POP

POST Technologies provides an air ventilation equipment as a basic facility of a POST Technologies Area POP. An air-conditioning equipment may be installed only if the air ventilation equipment cannot fulfil the air-conditioning requirements set forth in the recommendation ETS 300 019-1-3 class 3.1 inside a POST Technologies Area POP. POST Technologies and the Operators hosted in a given POST Technologies Area POP shall commit themselves to take in charge the costs related to installation and operation of such an air-conditioning system.

2.1.2.4. Raised floors in an Area POP

A raised floor will be installed in a POST Technologies Area POP.

The floors may only be subjected to uniformly distributed loads of maximum 5500 N/m². As a consequence, Operator's equipment shall exert an evenly distributed floor load.

Load concentrations shall be calculated in each individual case having regards to the circumstances and the concerned facilities to check the conformity with specific floor loading limitations.

2.1.2.5. Common utility equipment in an Area POP

Each POST Technologies Area POP will be provided with the following common utility equipment:

- Standard lighting of 300 lux;
- Smoke detector connected to a fire alarm installation;
- Terminal for local and/or remote access control;
- Argonit automatic fire suppression system*.

* In case the automatic fire suppression is activated by an action of the Operator's staff, the re-initialisation of the system will be billed to the Operator at actual costs.

2.1.3. Optional facilities of an Area POP

POST Technologies will provide, where technical feasible, the following optional facilities to the Operator on its request. The installation and adaptation costs of these facilities will be charged to the requesting Operator in compliance with Schedule 5 below. Monthly charges will be billed to the Operator as defined in Schedule 5.

2.1.3.1. 48V DC no break power supply in Area POPs

The provision of a 48V DC no break power supply shall be in accordance with recommendation ETS 300 132-2 Power supply interface at the input of the telecommunications equipment; Part 2.

POST Technologies will provide a distribution board in the POST Technologies Area POP. The Operator shall specify the required power capacity at the time of the Area POP Survey. The supply and installation of power cable(s) to the Operator Rack/Co-Location Rack Space shall be at charge and under the liability of the concerned Operator. The applicable tariff is specified in Schedule 5.

The monthly charge of 48V monitored DC Electric power consumption shall be as defined in Schedule 5. It is to be noted that POST Technologies uses the same electric source as provided to the Operators. The monthly rental fee to be invoiced to a given Operator shall be based on the fuse of the circuit as required by the said Operator, the related consumption and the installation of a single 48V DC circuit, as further set forth in Schedule 5. The Operator shall specify to POST Technologies semi-annually as well as after each upgrade or downgrade of a fuse, the measured current on its circuits, while POST Technologies shall be entitled to verify at its discretion and by its own means the accuracy of the said Operator's results. In case the required measurements are not provided by the Operator in due time, POST Technologies will charge the maximum value as defined by the installed fuse. In case of discrepancy between the results specified by the Operator as above-mentioned and POST Technologies' verifications, while the Operator contests the results of POST Technologies' verifications, POST Technologies, in accordance with the concerned Operator, will designate an independent expert to carry out a new verification, the costs of which shall be taken in charge on a fifty-fifty (50/50) basis by the Parties. The results of the expert's verification shall be binding upon the Parties and POST Technologies will invoice the Operator accordingly.

2.1.3.2. Back-up circuit for 48V DC power supply in an Area POP

To secure the power supply circuit to its equipment, the Operator may ask for a second 48V DC circuit. This second circuit shall be considered as a back-up only. As a consequence, the total current of the two circuits shall in no case exceed the agreed value for the first circuit.

The supply and installation of the additional power cable(s) to the Operator Co-Location Rack Space shall be at charge and under the liability of the concerned Operator. The applicable tariff is specified in Schedule 5.

2.1.3.3. Other optional facilities

On Operator's formal request, POST Technologies may offer other optional facilities. These facilities shall be priced on a case by case offer.

2.1.4. Provisioning

The fundamentals of the provisioning process are described here after.

2.1.4.1. Provisioning of Rack space in an existing an existing POST Technologies Area POP

The fundamentals of the provisioning process are described here after.

2.1.4.1.1 Principles

A list published on POST Technologies' Website will show all existing and planned Area POPs and the availability of Co-Location Space.

An Operator interested in using Co-Location Services at a site published in this list can request POST Technologies for detailed information regarding the said POST Technologies Area POP. Requests for Co-Location Rack Space can only be made in the context of RUO, ROB or ROLLS Services. In the above-mentioned request, the Operator shall at least describe precisely its needs regarding the Co-Location Rack Space and electric power consumption.

To make sufficient Rack Space available to all Operators in a POST Technologies Area POP, Co-Location Rack Space is only made available in increments of half-rack spaces. The first half-rack space ordered by the Operator has to be fully occupied before ordering a second half-rack space.

Within five (5) working days of receiving such an Operator's request, POST Technologies shall give the Operator an indication whether the required Co-Location Rack Space at this POST Technologies Area POP is still available, as well as a proposal for a site visit to clarify technical issues and clarify the localisation of the allocated Rack Space.

2.1.4.1.2 Upgrade of an existing POST Technologies Area POP

POST Technologies can initialize an upgrade of facilities or any other additional requirements of a given POST Technologies Area POP at the expenses of all Operators present at this Area POP, including POST Technologies, if the upgrade or extension is necessary to meet the requirements set forth in Article 2.1.2.

2.2. Co-Location within an existing POST Technologies' Co-Location Equipment Room (POP type B)

2.2.1. Description

The Co-Location Space within an existing POST Technologies' Site shall consist of:

- a designated floor space within a given Co-Location Equipment Room at a given POST Technologies' Site, or

The following basic facilities shall be accessible at a Co-Location Equipment Room:

- physical Co-Location Space as expressly allocated to or reserved for a given Operator, being either a physical floor space occupied by the physical Co-Location cabinet installed by the Operator under the terms and conditions of this RCO;
- relevant rights of access and access control for the Operator's staff;
- ducting on POST Technologies' property up to the border of the publicly owned land with the concerned POST Technologies' Site or SLCP to provide the fiber facility link; and
- basic facilities as described in 2.2.2 [Basic facilities of a Co-Location Equipment Room](#).

Optional facilities as defined in Article 2.2.3 hereof shall be accessible, subject to an additional order to be issued by the Operator to POST Technologies.

The Operator's fiber optic cable for the physical Co-Location Equipment Room shall be provided as specified below:

- POST Technologies shall provide cable duct(s) up to the border of the publicly owned land with the concerned POST Technologies' Site;
- the Operator shall provide the fiber optic cable up to the cable duct(s) provided by POST Technologies; and
- POST Technologies shall bring the Operator's fiber optic cable through the POST Technologies' cable duct(s) into the physical Co-Location Equipment Room.

For the avoidance of doubt, the above-mentioned installation of the fiber optic cable shall be implemented by POST Technologies under its sole responsibility.

The costs for the provisioning by POST Technologies of the cable ducts and installation of Operator's fiber optic cable as set forth above from the boundary of POST Technologies' Site to the physical Co-Location Equipment Room shall be entirely charged to the Operator in compliance with Schedule 5 below.

Other technical possibilities for the Operator's backbone links such as rental of POST Technologies ducts, POST Technologies dark fibre or transmission capacity are outside the scope of this offer.

2.2.2. Basic facilities of a Co-Location Equipment Room

The costs related to the installation and adaptation of a Co-Location Space or a Co-Location Equipment Room as the case may be, including the basic facilities, are included in the monthly rental fee of the co-location services.

2.2.2.1. AC power supply for occasional use:

230 VAC power supply is made available by POST Technologies solely for the purpose of occasional and temporary use by the Operator in order to test an equipment, to maintain and/or to clean it, as well as for interventions related thereto, it being specified that such a 230 VAC power supply shall in no case be dedicated to a specific Operator.

One or more socket points will be provided per Co-Location Equipment Room for standard 230 VAC 'unmonitored' power supply.

2.2.2.2. Earthing:

The earthing system available at a given Co-Location Equipment Room will be in accordance with ETS 300 253 and ITU-T recommendation K27. The minimum earthing facility will be a ring line in the Co-Location Equipment Room that has multiple links to the building-based

earthing facilities, it being specified that Co-Location Shelters shall include their own earthing system.

2.2.2.3. Climate Control:

No air-conditioning equipment will be provided by POST Technologies as a basic facility of a Co-Location Equipment Room. Such air-conditioning equipment may be installed only if expressly ordered by one of the Operators hosted in the said Co-Location Equipment Room. Monthly charges related to the air conditioning will be invoiced to all Operators as specified in Schedule 5. POST Technologies shall in no case be held responsible for fulfilling the air-conditioning requirements set forth in the recommendation ETS 300 019-1-3 class 3.1 in Co-Location Equipment Room(s) where no air-conditioning equipment has been requested by any Operators.

2.2.2.4. Floor:

A raised floor will be installed where technically feasible in a Co-Location Equipment Room.

The floors may only be subjected to uniformly distributed loads of maximum 5500 N/m². As a consequence, Operator's equipment shall exert an evenly distributed floor load.

Load concentrations shall be calculated in each individual case having regards to the circumstances and the concerned facilities to check the conformity with specific floor loading limitations.

2.2.2.5. Common utility equipment:

Each Co-Location Equipment Room not being a Co-Location Shelter will be provided with the following common utility equipment:

- standard lighting of 300 lux;
- smoke detector connected to a fire alarm installation;
- terminal for local and/or remote access control;
- distribution board for 48 VDC power supply;
- distribution board for 230 VAC power supply; and
- Argonit automatic fire suppression system*.

* Only available at some POST Technologies' Sites. In case the automatic fire suppression is activated by an action of the Operator's staff, the re-initialisation of the system will be billed to the Operator at actual costs.

Each Co-Location Rack Space in an existing POST Technologies' Co-Location room will be provided with 48 V DC power supply (up to 500 Watt) and a ventilation system for heat evacuation.

All internal cabling in the Co-Location Equipment Room, apart from the fibre and/or copper cables between Co-Location MDF/ODF and the Operator's rack, will be installed by POST Technologies and charged to the applying Operators in compliance with Schedule 5 below.

2.2.3. Optional facilities of a Co-Location Equipment Room

POST Technologies will provide, where technical feasible, the following optional facilities to the Operator on its request. The installation and adaptation costs of the facilities will be charged to the requesting Operator in compliance with Schedule 5. Monthly charges will be billed to the Operator as defined in Schedule 5 and made available to the Operator as set forth in Article 2.2.4.3.

2.2.3.1. 48V DC no break power supply:

The optional provision of a 48V DC no break power supply shall be in accordance with recommendation ETS 300 132-2 Power supply interface at the input of the telecommunications equipment; Part 2.

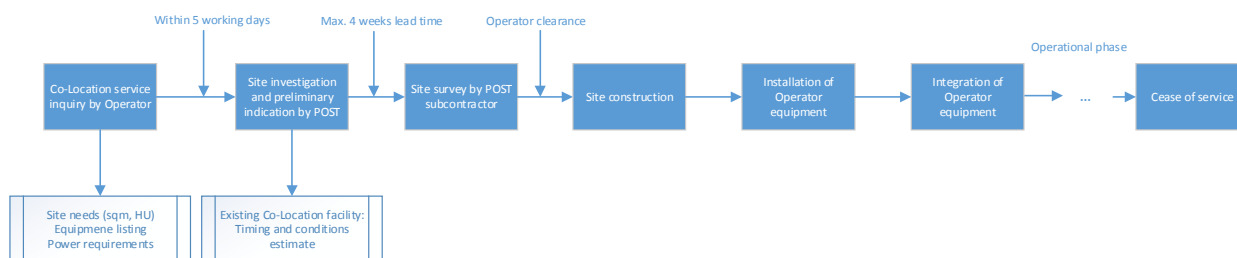
POST Technologies will provide a distribution board in the Co-Location Equipment Room not being a Co-Location Shelter. The Operator shall specify the required power capacity at the time of the Site Survey. The supply and installation of power cable(s) to the Co-Location Space shall be at charge and under the liability of the concerned Operator.

In the distribution board fuses with a maximum value of 63A shall be used.

The monthly charge of 48V monitored DC Electric power consumption shall be as defined in Schedule 5. It is to be noted that POST Technologies uses the same electric power source as provided to the Operators. The monthly rental fee to be invoiced to a given Operator shall be based on the fuse of the circuit as required by the said Operator, the related consumption and the installation of a single or a duplicated 48V DC circuit, as further set forth in Schedule 5. In case a duplicated circuit is installed, the second circuit shall be considered as a back-up only. As a consequence, the total current of the 2 circuits shall in no case exceed the agreed value for the first circuit. The Operator shall specify to POST Technologies in principle semi-annually as well as after each upgrade or downgrade of a fuse, the measured current on its circuits, while POST Technologies shall be entitled to verify at its discretion and by its own means the accuracy of the said Operator's results. In case the required measurements are not provided by the Operator in due time, POST Technologies will charge the maximum value as defined by the installed fuse. In case of discrepancy between the results specified by the Operator as above-mentioned and POST Technologies' verifications, while the Operator contests the results of POST Technologies' verifications, POST Technologies, in accordance with the concerned Operator, will designate an independent expert to carry out a new verification, the costs of which shall be taken in charge on a fifty-fifty (50/50) basis by the Parties. The results of the expert's verification shall be binding upon the Parties and POST Technologies will invoice the Operator accordingly. The supply and installation of the additional power cable(s) to the Operator Co-Location Rack Space shall be at charge and under the liability of the concerned Operator. The applicable tariff is specified in Schedule 5.

2.2.4. Provisioning

The fundamentals of the provisioning process are described below:



First provisioning of a Co-Location Equipment Room

2.2.4.1. First provisioning of a Co-Location Equipment Room

2.2.4.1.1 Principles

An Operator interested in establishing a Co-Location at a specific Co-Location Equipment Room, can request POST Technologies for information regarding the availability of Co-Location Services at the said Co-Location Equipment Room. Requests for Co-Location can

only be made for Co-Location Equipment Rooms in order to house equipment necessary for Interconnection Services, LLU Services, Broadband Services and/or Leased Line Services. All equipment only required to provide additional services on top of these connectivity services (e.g. application servers, etc.) shall not be housed in the Co-Location Spaces, but within the Operator's own datacenter facilities. In the above-mentioned request, the Operator shall at least describe precisely its needs regarding the referred Co-Location Equipment Room as well as the type of equipment it wishes to install therein.

Within five (5) working days of receiving such an Operator's request, POST Technologies will give the Operator a preliminary indication whether a Co-Location Equipment Room already exists or Co-Location Space(s) is(are) available at this Co-Location Equipment Room, as well as an indication of the timing and conditions for such a Co-Location implementation in an existing Co-Location Equipment Room. If Co-Location Services are not possible at the requested Co-Location Equipment Room, POST Technologies will motivate and prove the reason(s) thereof to the concerned Operator.

In case of a proven necessity that a received Co-Location Request requires major adaptations to existing POST Technologies' Site, a full Site Survey shall be carried out. In case the Operator confirms its acceptance thereof, POST Technologies will carry out the said full Site Survey and submit a full report including a time schedule for the adaptations within one (1) month to the Operator. The duration of collective holidays of concerned workforce is excluded from this time schedule. Upon receipt of the full Site Survey the Operator shall, within two (2) weeks, notify to POST Technologies whether it accepts or not (i) the implementation of the works as specified in the concerned full Site Survey and (ii) the minimal contract duration of 5 years. Upon Operator's acceptance thereof, the adaptation works of the existing POST Technologies' Site shall be implemented to prepare a Co-Location Equipment Room compliant to the specifications mentioned in the RCO under POST Technologies' supervision and liability.

POST Technologies shall be held responsible for the estimated timing indicated in the time schedule to execute the said adaptations. Specific conditions may arise where the responsibility of POST Technologies and its subcontractors is removed. These specific conditions are, exclusively, related to conditions of "force majeure", or "totally unpredictable situations".

In case the received Co-Location Request does not require adaptations to existing POST Technologies' Site, POST Technologies will send to the requesting Operator without undue delay and at the latest four (4) weeks after receipt of the relevant valid Co-Location Request, detailed and transparent information compliant to the provisions of Schedule 5 below and related time schedule.

In case POST Technologies receives three (3) or more Co-Location Requests requiring major adaptations during the same period, the delay of four (4) weeks for the delivery of a full Site Survey report cannot be guaranteed by POST Technologies. Should the case arise, POST Technologies will duly inform the concerned requesting Operator(s) and will provide it (them) with a reasonable processing time.

Should the case arise that the Operator, solely or together with other Operators, requests POST Technologies to provide a Co-Location Equipment Room which should not be equipped with all basic facilities as specified in Article 2.2.2 (Basic facilities of the Co-Location Equipment Room), POST Technologies will examine the Operator's Co-Location Request and will in principle only accept it when such a request appears to be reasonable and duly justified by the Operator. Nevertheless, despite such acceptance of a non-conforming Co-Location Request, POST Technologies shall in no case be or be held responsible for any direct or indirect damages or costs related to the Operators' request for shortage of facilities installed in the Co-Location Equipment Room.

2.2.4.2. Extension of an existing Co-Location Equipment Room not being a Co-Location Shelter

The extension of a Co-Location Equipment Room shall cover and include all building adaptations and all common utility infrastructure adaptations necessary for POST Technologies to be able to provide the requested Co-Location Services without impacting negatively the Co-Location Services then provided to already hosted Operator(s). Such an extension may be a simple enlargement of the existing Co-Location Equipment Room but may as well imply the construction of a completely new Co-Location Equipment Room. In any case, the process will be transparent and compliant to the provisions set forth in Schedule 5 below.

2.2.4.3. Upgrade of an existing Co-Location Equipment Room

The Operator can request, solely or together with other Operators already hosted in the same Co-Location Equipment Room, an upgrade of facilities or any other additional requirements of the Co-Location Equipment Room at its/their own expenses. POST Technologies will examine such request(s) and in principle accept it only if it is reasonable and duly justified in view of the Co-Location Services offered pursuant to this RCO and provided the adaptations needed to meet these additional requirements are feasible.

POST Technologies can request an upgrade of facilities or any other additional requirements of a given Co-Location Equipment Room if the upgrade or extension is necessary to meet the requirements set forth in Article 2.2.2.

Other upgrades of the Co-Location Equipment Room may be performed after common agreement between POST Technologies and the Operators already hosted in the corresponding Co-Location Equipment Room.

2.3. Adjacent Co-Location (POP type C) and Distant Co-Location

2.3.1. Adjacent Co-Location (Co-Location in a Shelter adjacent to an existing POST Technologies' Site or SLCP)

Adjacent Co-Location shall be strictly limited to the provision of LLU Services for the sole purposes of terminating tie cable(s) onto an MDF or ODF as set forth in the applicable RUO.

Adjacent Co-Location is the service according to which POST Technologies offers an extension of the Tie Cables (including both copper and optic fiber) from the MDF or ODF in a POST Technologies' technical building to the concerned Operator's Co-Location Shelter installed on or near the boundary of POST Technologies' Site for the purpose of LLU Services as specified here above.

The adjacent Co-Location facility shall consist of a lockable Shelter, provided by POST Technologies.

POST Technologies shall bring tie cables from a dedicated block on the MDF or ODF through the external POST Technologies' cable ducts to the concerned hand-over Shelter. All necessary works for pulling tie cables through the ducts and relevant connection in the cross connection cabinet shall be implemented exclusively by POST Technologies' staff or by a private firm vested by POST Technologies for that purpose. The related costs compliant to the provisions set forth in Schedule 5 will be charged by POST Technologies to the Operator.

2.3.2. Distant Co-Location

The Distant Co-Location room shall be installed in the vicinity of the concerned POST Technologies' Site or SLCP.

In principle, any Distant Co-Location room is and will remain under the sole Operator’s responsibility. This principle may be amended on a case by case basis having regards to the specific circumstances with POST Technologies’ prior express approval and after detailed specifications of the modalities applicable thereto.

Distant Co-Location is the service according to which POST Technologies offers an extension of the tie cables (including both copper and optical fibre) from the MDF or ODF in a POST Technologies’ technical building or SLCP to a manhole on the boundary of a POST Technologies’ Site for the purpose of junction with the Operator's cabling for LLU Services.

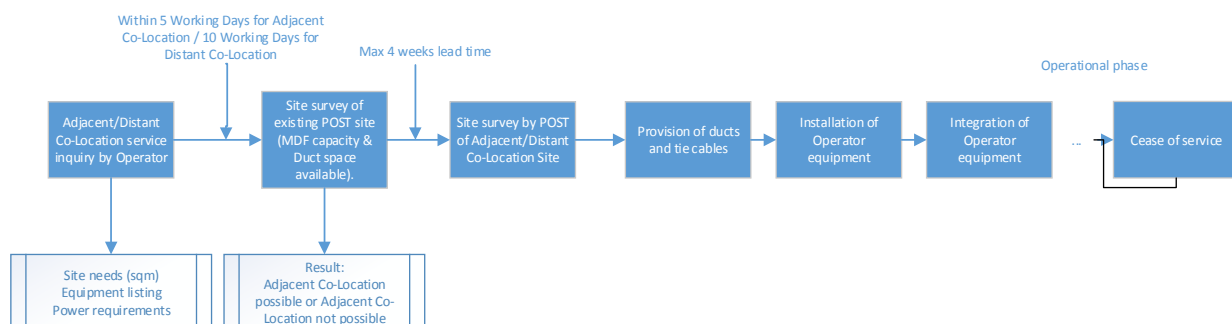
It is to be noted that for a distant Co-Location, POST Technologies will deploy its best efforts to replicate the exact same performances and conditions to the Operator and provide the same service as for a regular Co-Location.

Upon an Operator’s request for connecting a Distant Co-Location room, POST Technologies will specify the relevant point of interconnection between the Operator’s infrastructure and POST Technologies Infrastructure respectively, being either a manhole on POST Technologies’ boundary or a duct space from POST Technologies’ Site or SLCP.

In any case of Distant Co-Location, the penetration to the manhole can only be done after prior authorization by POST Technologies’ staff and shall comply with any instructions given in relation thereto by POST Technologies’ staff.

2.3.3. Provisioning process for both Adjacent or Distant Co-Location

The fundamentals of the provisioning process for either Adjacent or Distant Co-Location are described below:



Upon receipt of a valid Co-Location Request issued by an Operator for either an Adjacent or a Distant Co-Location, POST Technologies will conduct an initial Site Survey of the relevant POST Technologies’ Site.

In case of an Adjacent Co-Location request, POST Technologies will provide the Operator within five (5) working days after receipt thereof with a preliminary indication whether an Adjacent Co-Location facility is immediately possible. If an Adjacent Co-Location is not immediately possible at the requested POST Technologies’ Site, POST Technologies will motivate to the Operator the reasons thereof.

In case of a Distant Co-Location Request, POST Technologies will respond to the Operator within ten (10) working days indicating whether or not Distant Co-Location is immediately possible. If Distant Co-Location is not immediately possible at the requested POST Technologies’ Site or SLCP, POST Technologies will motivate to the Operator the reasons thereof.

At the latest four (4) weeks after the relevant valid Co-Location Request and provided the requested Co-Location is immediately possible, POST Technologies will send a detailed and

transparent offer to the Operator indicating the time schedule of the strictly necessary adaptations in compliance with the provisions set forth Schedule 5.

2.4. POST Technologies' refusal of an Operator's Co-Location Request

Despite a valid Operator's request for a Co-Location Equipment Room within an existing POST Technologies' Site or in a Co-Location Shelter on the boundary to an existing POST Technologies' Site or SLCP, POST Technologies may be obliged to refuse the concerned Co-Location on reasonable grounds, such as in particular technical constraints or lack of space in a Co-Location Equipment Room, a POST Technologies Area POP or POST Technologies' site.

In such a case, POST Technologies will within six (6) weeks respond in writing to the Operator giving the duly proven reasonable ground(s) for the said refusal.

2.5. Tie Cables and Rack Connecton Facilities (RCF) within Co-Location Equipment Rooms (POP Type B) and Co-Location Shelters (POP type C)

2.5.1. Description

At the POST Technologies Local Exchange, copper wires and fiber optic cables are terminated in the MDF and ODF. The Operator's access to these copper wires and optical fibres will be established with tie cables from the MDF and/or ODF of the Local Exchange to the Operator's Co-Location area in or adjacent to that same POST Technologies' Site.

This Co-Location Space may be situated in a Co-Location Equipment Room inside a POST Technologies' building or in a Co-Location Shelter outside the building.

The Operator will order the Tie Cables prior to the request for LLU Services. If, at a certain point in time, no more free wires or fibres are available in the Tie Cables, the specific orders for LLU Services will be rejected.

Copper Tie Cables will be supplied in increments of 100 pairs. Fibre Tie cables will be supplied in increments of 24 fibres for Co-Location Equipment Rooms (POP type B) and 48 fibres for adjacent Co-Location Shelters (POP type C). acilities.

2.5.2. Boundary conditions and prerequisites

Co-Location Space is a prerequisite for the implementation of these LLU Services. As long as an Operator does not have approved Co-Location facilities, no order for Tie Cables can be executed.

The Operator shall provide, at its own expenses, in the specified Co-Location Space, suitable accommodation for POST Technologies' equipment required for the termination of the copper Tie Cables.

Copper Tie Cables will have, associated with it, termination blocks provided by POST Technologies. The termination blocks are installed at the MDF and at the HDF (Handover Distribution Frame) within the Operator's Co-Location Space. The HDF is for the sole use of the Operator within the specified Co-Location area.

Tie cables for voice-band or narrow-band data will be terminated on LSA-plus connection blocks with a possibility to disconnect or to do intrusive measurement.

POST Technologies shall be responsible for the installation and maintenance of the copper Tie Cables and termination blocks. The handover point shall be the termination block on the

HDF.

The Operator shall be solely responsible for any loss, theft, destruction of, or damage to POST Technologies' equipment in the accommodation housing the tie cable at the accommodation provided by the Operator, howsoever caused, occurring at any time while such POST Technologies' equipment is so located.

For normal provisioning, POST Technologies does not need to intervene on the HDF termination blocks. Therefore, the Operator is entitled to lock access to the HDF.

In case of presumed interference or other problems on the tie cable, POST Technologies may request the Operator to enable temporary access to a locked HDF at no expense for POST Technologies.

Fibre Tie Cables will be terminated by POST Technologies at the Co-Location ODF within The Co-Location Equipment Room. The Operator will install its own break-out fibre cables between its racks and said Co-Location ODF to gain access to any fiber-based services delivered by POST Technologies to the Operator. The end of the break-out cable close to the Co-Location ODF shall have SC-APC 9° connectors and each one of the dropped-out single cable elements on that side must have a length of 2,6m. In a second step, POST Technologies will physically connect the break-out cable to the Co-Location ODF. The Operator is responsible to physically connect the other side of the break-out cable to equipments installed in its rack.

All installations done by POST Technologies or by POST Technologies' subcontractors will be carried out in the most optimised way. The routing of the Tie Cables shall be at POST Technologies' sole discretion.

2.5.3. Tie cables management

Tie cables shall at all times be filled before a new Tie Cable is deployed for the provision of additional LLU Services; the Operator shall be responsible for ensuring this. The Operator shall therefore submit LLU orders for partially filled Tie-Cables in preference to empty Tie Cables.

In case of capacity constraints on the MDF or ODF and only partially used Tie Cables, a rearrangement may need to be performed to de-fragment the use of cables and to eliminate gaps within the tie cable pair or fibre allocation thus eliminating unused pairs or fibres in excess of 50% of active pairs or fibres.

This activity will be done in cooperation with the Operator and POST Technologies will bill this rearrangement activity to the Operator.

2.6. Operator Rack Connection within Area POPs (POP type A)

The Operator Rack Connection physically represents the connection from the Operator's Co-Location Rack Space to the ODF located in the same room of the type A POP (Area POP). The Operator Rack Connection is carried out using individual patch cables and is done after POST Technologies receives an order for a fibre-based services. This means that Tie Cables are not a pre-requisite in type A Fibre POPs as it is the case for type B and type C Fibre POPs.

2.7. Lead times

The following lead times are given for the execution of specific tasks in relation with the provisioning of Co-location Space at any of POST Technologies' Co-location Equipment Rooms or Area POPs.

Description	Lead Time
Site visit after first request for colocation space	5 Working Days
Installation of electrical facilities/power supplies in Operator rack (after supply of rack and specification of power requirements by the Operator)	30 Working Days
Connection and test of installed power supplies (after readiness of both power supply installations and Operator equipment)	5 Working Days
Connection and measurement of break-out cables (after being notified by the Operator of its installation)	10 Working Days
Installation of exterior cabinet and ODF for adjacent Type C colocation	60 Working Days

These lead times are valid in case sufficient resources are available on site (e.g. space, airconditioning, power) and that the fulfilment of the request for Co-location does not require the expansion of existing facilities or any construction works. In such a case, a study about the expansion of the Co-location site or the construction of a new adjacent Type C Co-location is required which might involve external contractors.

Schedule 3. Space allocation, installation and use rules

3.1. Co-Location Space allocation

If an Operator wishes to make a reservation for a Co-Location Space in an existing Co-Location Equipment Room, it shall send a Co-Location Request for reservation to POST Technologies by email to order.technologies@post.lu.

Co-Location Space will be allocated on a basis of 600 * 600 mm footprints or height units in case of a Co-Location Shelter and shall include appropriate space for maintenance access. Where technically feasible, the Operator can request POST Technologies to provide larger footprints. In any case only entire undivided footprints may be allocated.

Co-Location Rack Space will be allocated on the basis of a half-rack, enabling the Operator to install his 19" or 21" equipment. The half-rack is provided with a guidance system to store patchcord excess lengths and allows the Operator to flexibly reallocate its equipment ports.

As the available Co-Location Spaces are limited in a given Co-Location Equipment Room, POST Technologies will allocate any requested Co-Location Space on a "first-come, first-served" basis and will limit the maximum available Co-Location Space per Operator. This mechanism shall be implemented by using the time stamp apposed on the Co-Location Request.

POST Technologies is entitled to classify available floor space as "unavailable" for Co-Location Services if it plans to abandon or close the concerned POST Technologies' Site as set forth in Article 4.2 below.

3.2. Installation rules

When occupying the Co-Location Space specifically allocated to it, the Operator shall install only transmission equipment (including line terminators, modems, multiplexers, integrated routers, etc.) necessary to operate the services covered by the applicable Reference Offers. The transmission equipment and racks shall be installed directly or indirectly by the Operator and under its full liability. Any equipment not required to terminate the lines, circuits and interconnections purchased under the terms of any of the applicable reference offers or to forward traffic received via said lines, circuits and interconnections towards a POP or datacenter of the Operator must not be installed within the Co-Location facilities provided by POST Technologies.

Whichever may be the reason, the Operator can in no way allow that the Co-Location Space(s) allocated to it be used either in whole or in part:

- by a third party; and/or
- for other purposes than those expressly described in this RCO or in the related Co-Location Agreement.

The Operator shall in no case without POST Technologies' prior written consent:

- Alter in anyway the Co-Location Space(s) allocated to it;
- Transfer, in whatever way, its rights under the said Co-Location Space(s) either in whole or in part to a third party.

For the purpose of the above, it is agreed that natural or legal persons that are held at least at fifty-one percent (51%) by the concerned Operator shall not be deemed as being "third party", provided that the concerned Operator remains towards POST Technologies fully liable for and responsible of all undertakings, commitments and payments relating to the above-mentioned use and/or transfer.

The Operator may not cause (i) any inconvenience towards other users and Operators of the Co-Location Equipment Room, POST Technologies Area POP, POST Technologies' Site or SLCP or (ii) interference(s) with any equipment of such Operators or of POST Technologies.

All Operator's transmission equipment shall specifically comply with the relevant technical specifications provided from time to time in relation to installation rules. The Operator shall make sure that none of its equipment causes or may cause disturbance or interference to POST Technologies' equipment or to the other Operator's equipment hosted in the Co-Location Equipment Room, Area POP or Co-location Shelters. If this would nevertheless be the case, both Parties shall cooperate to resolve the arisen problems without undue delay, while any and all costs incurred in relation therewith shall be entirely borne by the Party responsible for the interference. All equipment have to be compliant to ITU-T and ETSI recommendations safety specifications and furthermore be compliant to the CE relevant standards. A complete catalogue of rules for the operator's perusal will be published and kept up to date on the following website: www.posttechnologies.lu. This catalogue will allow the Operator to ensure its technical compatibility with POST Technologies' infrastructure

The Operator shall in no case touch, move or modify in any way another Operator's equipment.

The Operator shall provide, maintain and operate its transmission equipment in a proper and suitable manner and shall in particular, take all steps necessary or appropriate to ensure that it does not present or cause real or potential danger for safety or health.

3.3. Characteristics of Operator supplied racks and equipment to be co-located

For Co-Location Space in Co-Location Equipment Rooms, the standard dimensions as defined in the norm ETS 300 119 shall be used for the construction of the cabinets for the Operator's equipment, while the Operator shall in any case provide its own racks. The maximum allowed height of the cabinet shall be 2200 mm.

For Co-Location Rack Space, the standard dimensions as defined in the norm ETS 300 119 is used by POST Technologies for the provisioning of Racks dedicated to provide Co-Location Rack Space on a basis of a half rack for Operator's equipment.

The Operator's equipment to be installed in the specified Co-Location Space or Rack shall fully conform to the norm ETS 300 253 and ITU-T recommendation K.27 together with the earthing facility supplied by POST Technologies.

The 48V DC equipment provided by the Operator and its installation shall fully comply with the norms ETS 300 132-1, ETS 300 132-2, DIN VDE 0185.

For safety reasons the presence of batteries in the Co-Location Equipment Room not being a Co-Location Shelter is forbidden.

Electro-magnetic effects and radiation by the Operator's equipment shall fully comply with the requirements of the norm ETS 300 386-1 table 3.

3.4. Access conditions for Operator's staff

POST Technologies will provide the Operator with relevant access to the Co-Location facilities. POST Technologies shall, where reasonably practicable, provide dedicated entrance facilities for the Co-Location Equipment Room. Where it is not reasonably practicable to provide such entrance facilities, POST Technologies will provide to the Operator alternative entrance facilities as set out hereafter.

In principle, the Operator's staff does not need to be accompanied by POST Technologies' security staff during visits to the allocated Co-Location Space inside the POST Technologies' Site. As a consequence, no compensation for such kind of activity by POST Technologies' staff has been included in this RCO but may be due in particular circumstances.

However, the Operator's attention is expressly drawn onto the fact that certain restrictions shall apply such as, for example, that only authorized staff can enter or access a Co-Location Equipment Room, Area POP or Co-location Shelters where Co-Location Services are granted to the Operators; and Operator's staff shall always wear visibly the identifying badge provided by POST Technologies.

3.5. Security

Access to a Co-Location Equipment Room or Area POP having dedicated external access and a solid internal perimeter may be controlled by either mechanical or electronic locking in conjunction with an access control system at POST Technologies' discretion.

The Operator accepts and acknowledges that access to each POST Technologies' Site is logged and will then be controlled at all times and provide accordingly an audit trail.

POST Technologies will only permit access by the Operator and/or the Operator's employees, agents and contractors to the Co-Location Space(s) allocated to the Operator.

When at a POST Technologies' Site or SLCP, all Operator employees, agents or contractors shall visibly display an appropriate identity card. Where required for use with a POST Technologies' managed access control system, a suitable access card will be provided by POST Technologies.

Two (2) types of POST Technologies' Sites can be distinguished, while each has its own specific security needs, i.e.:

- Guarded buildings – are manned buildings having receptionists at the access point(s) to control access; and
- Unguarded buildings – are manned or unmanned buildings having no people dedicated at the access point(s) to control access.

3.5.1. Access to Guarded Buildings

The Operator's employees, agents or contractors will, upon production and verification of their respective individual identity card, be allowed to enter into a POST Technologies' Site in order to access the Co-Location Equipment Room housing the Operator's equipment. Access will be limited to the Co-Location Space(s) allocated to the concerned Operator as well as to the extent reasonably needed to those areas necessary to conduct Operator's business in relation to the said Co-Location Space(s).

Access to a Co-Location Equipment Room housing the Operator's equipment having only internal access within guarded buildings without electronic access control, will require formal entry/exit registration against a previously agreed list of named Operator's employees, agents or contractors held at the security post or reception desk.

3.5.2. Access to Unguarded Co-Location Equipment Rooms or Area POPs

Access to unguarded Co-Location Equipment Rooms and Area POPs shall be controlled as follows:

- Electronic access using an access card; and/or

- Access using a physical key.

Access to a Co-Location Equipment Room or Area POP housing Operator's equipment and having only internal access within unmanned or part-time manned buildings, will be restricted to those people for whom an access card has been programmed to allow entry at the designated building main entrance, and their supervised visitors.

3.5.3. Access Cards and keys

In a POST Technologies' Site where access is provided by means of an electronic access control system using access cards, only Operator's employees, agents or contractors for whom an access card has been programmed to allow entry will be allowed automatic entry into the building.

All access cards remain the exclusive property of POST Technologies and may be withdrawn or disabled by POST Technologies at its sole discretion and at any time.

The use and safeguarding of such access card(s) shall be under the exclusive liability of the concerned Operator.

The Operator shall, without delay, report to POST Technologies the loss of any access cards in accordance with the applicable POST Technologies' procedure, while POST Technologies may in case of loss of such access card(s) charge the related costs in compliance with the provisions set forth in Schedule 5 (including deactivation and refurbishment costs) to the Operator.

Operator's cardholders may grant access to visitors to a Co-Location Equipment Room or Area POP housing Operator's equipment, while in such case access and visit shall at all times be and occur under the exclusive, direct and permanent supervision and responsibility of the Operator's cardholder(s) granting such an access to visitors. As a consequence, the concerned Operator shall be held liable for any incident occurred during such visitors' access and the consequences thereof and/or damages arising there from. Operator's employees, agents or contractors will only be issued with keys exclusively allowing access to a Co-Location Equipment Room or Area POP housing Operator's equipment, and not to any other part of a POST Technologies' Site or SLCP.

All access keys remain the exclusive property of POST Technologies and may be withdrawn

POST Technologies' staff or subcontractors working under POST Technologies' responsibility shall only have access to the Co-Location Space or Co-location Rack Space housing Operator's equipment insofar as such access is necessary:

- for inspection or safety purpose in the Co-Location Equipment Room, Area POP or Co-location Shelter with regards in particular to electrical safety, fire safety and fire hazard;
- in connection with the carrying out of maintenance works to the basic facilities;
- in connection with an initial or a full Site Survey, for the allocation of footprints or the carrying out of any other works related to (i) the extension of a Co-Location Equipment Room or Area POP or (ii) the creation or extension of a Co-Location Space;
- in connection with the carrying out of cable installation works, to provide connectivity to the Operators present in the Co-Location Equipment Room or Area POP;
- in case unforeseen circumstances of an urgent nature (such as for example calamities, floods, trouble or any suspicion of trouble) give cause hereto; and/or

- for accessing POST Technologies' premises wherever necessary.

For the avoidance of doubt, the Operator understands and accepts that third parties such as the emergency services or law enforcement agencies may have a legal right of entry at any time to POST Technologies' Site (including the Co-Location Equipment Room or Area POP housing the Operator's equipment and the Co-Location Space(s) allocated to it).

POST Technologies will charge to the Operator the appropriate charges in compliance with the provisions set forth in Schedule 5 below for any services provided by POST Technologies under this Schedule 3 calculated in accordance with the charges specified in the price list.

3.6. Safety Standards

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

- endanger in any way the safety or health of employees, contractors, agents or End Users of the other Party; or
- damage, interfere with or cause any deterioration in the operation of the other Party's system, another Operator's system or with an End User's system.

3.6.1. Fire safety

Structures, equipment and materials chosen, installed, used and/or located by an Operator in a Co-Location Equipment Room or Area POP shall be fire retarding or non-combusting. An exception only applies to outside cables, which enter a building or premises.

To reduce the risk of fire, each Operator (including its staff and/or subcontractors as appropriate) shall act with the utmost professional care when accessing or intervening in a Co-Location Equipment Room, while it shall under no circumstances be allowed to:

- smoke in any part of a Co-Location Equipment Room, Area POP or any POST Technologies' Site; or
- store any packaging materials or other combustible materials (even temporarily) on or near the Co-Location Space(s) allocated to it, in the Co-Location Equipment Room or Area POP, in POST Technologies' Site or SLCP.

3.6.2. Acoustic safety

Audible noise spectrum for equipment shall not exceed the noise level of 65 dB(A) in the frequency range from 20 Hz to 20 kHz (according to the measurement method set forth by the norm ISO 3741 or equivalent, or measurement of equipment IEC 651 type 1 or equivalent filter A).

3.6.3. Personnel protection

Constructions and equipment installed by the Operator shall be designed in such a way that it is not possible to touch or access components, which may injure human beings in particular as a consequence of high voltage or high temperature.

The corners and surfaces of structures, equipment and auxiliary devices installed by the Operator shall be engineered so as to eliminate the danger of injury or damages under normal conditions.

To protect eyes against laser and LED light emission, optical cables shall be recognizable as such. Optical connectors in systems having a hazard class higher than 1, shall be provided with a warning label and shall be equipped with power attenuation in case of fibre rupture.

3.6.4. Hazardous materials

All materials not or no longer compliant to applicable Law (in particular for health reasons or environmental risks) are expressly prohibited in Co-Location Equipment Rooms, Area POPs or Co-location Shelters.

3.7. Use rules

The Operator undertakes and shall cause that its employees, agents and contractors shall comply with POST Technologies' procedures and instructions as well as to act with the utmost care, notably when accessing and/or intervening in a POST Technologies' Site, in a Co-Location Equipment Room, Area POP or Co-location Shelter.

3.8. Fault Report

As soon as the Operator or the Operator's employees, agents and contractors discover or notices a failure or lack in relation to the provisioning of any part of the Co-Location Services, a SLCP, a Co-Location Equipment Room, an Area POP or any part of a POST Technologies' Site, a Fault Report shall be issued in compliance with POST Technologies' procedures and specify all relevant information and precisions to enable POST Technologies to determine precisely the problem so identified and be in a position to carry out appropriate tests to confirm its nature and origin as well as the works to be implemented to cure the said problem within the shortest reasonable time.

3.9. Operator's breach of applicable Co-Location rules

In any case of the Operator's breach of any applicable Co-Location rules, such as installation, use, security and/or safety rules, POST Technologies is entitled to, depending on the gravity and/or repetitiveness of the concerned breach:

- (i) Temporary refuses access to certain Operator's staff members to one or several Co-Location Equipment Room(s), Area POP(s) or Co-location Shelter(s).

In such case, POST Technologies will inform forthwith the Operator of the concerned breach, the identity of the Operator's staff members temporary prevented to have access, the concerned Co-Location Equipment Room(s), Area POP(s) or Co-location Shelter(s) and the exclusion time period, while the Operator shall take all necessary and/or appropriate steps and measures to ensure due compliance by the concerned staff members thereof and that the concerned breach will be duly and fully remedied and not be repeated in the future.

- (ii) Definitively refuse access to certain Operator's staff members to one or several Co-Location Equipment Room(s), Area POP(s) or Co-location Shelter(s).

In such case, POST Technologies will inform forthwith the Operator of the concerned breach, the identity of the Operator's staff members definitively prevented to have access to the concerned Co-Location Equipment Room(s), Area POP(s) or Co-location Shelter(s), while the Operator shall take all necessary and/or appropriate steps and measures to ensure due compliance by the concerned staff members thereof.

- (iii) Definitively withdraw the access to Co-Location Equipment Room(s), Area POP(s) or Co-location Shelter(s) granted to the Operator.

In such case, POST Technologies will notify the Operator (per registered mail) and the ILR of the concerned breach and the related access withdrawal sanction POST Technologies contemplates to apply against the Operator. POST Technologies will grant a period of 30 days upon reception of such notification to the Operator for the Operator to remedy the notified breach. POST Technologies is entitled to implement the access withdrawal sanction if the notified breach has not been remedied upon expiry of this period.

Schedule 4. Co-Location ceasing process

This process enables existing Co-Location Services, whichever may be the type, to be ceased. Three cases of ceasing can occur:

- A ceasing requested by the Operator;
- A ceasing requested by POST Technologies, notably when POST Technologies intends to close a POST Technologies' Site, Area-POP or SLCP upon prior notice thereof to the Operator or when the Operator has not made any operational use of the physical Co-Location Space allocated to it in the context of Interconnection Services, LLU Services, Broadband Services and/or Leased Line Services as defined by the Law or
- A ceasing request due to the termination of the (i) Co-Location Agreement(s), notably further to a contractual breach by the Operator or the Operator ceasing to be a notified interconnect, unbundling, broadband and/or leased line Operator in Luxembourg or due to the termination of any (ii) Interconnect Agreement, Unbundling Agreement, Broadband and/or Leased Line Agreement with the said Operator.

In such cases the Operator shall not be refunded for any payments made in respect of the Co-Location Agreement.

4.1. Ceasing process further to Operator's request

In order to terminate the Co-Location Services provided by POST Technologies in whole or in part at one or several Co-Location Equipment Rooms, Area POPs or Co-location Shelters, the Operator shall submit to POST Technologies a written cease order specifying the exact Co-Location Space(s) concerned by the said cease order, the Co-Location Equipment Room(s), Area POP(s) or Co-location Shelter(s) where said Co-Location Space(s) is(are) hosted and the requested termination date, it being specified that the Operator shall comply in this respect with a minimum one (1)-month prior notice.

Provided the above-mentioned prior termination notice period has been complied with, POST Technologies will accept the termination date proposed by the Operator. Otherwise, both Parties shall agree upon a reasonable termination date. Both Parties will further agree upon a cessation project plan taking into account the number and location of the concerned Co-Location Space(s).

4.2. Ceasing process further to POST Technologies' request

4.2.1. Failure or interruption of operational use of the allocated Co-Location Spaces

If the Operator has not made any operational use of the Co-Location Space(s) allocated to it under this RCO for Interconnection, Unbundling, Broadband and/or Leased Line Services purposes as specified by the Law, either at all or for a minimum period of six (6) months, in particular in case one or several other Operator(s) do urgently need in whole or in part the said unused Co-Location Space(s), POST Technologies shall be entitled to terminate at all times in writing the Co-Location Agreement(s) and related Co-Location Services by issuing a two (2)-months prior termination notice. For the sake of clarity, POST Technologies cannot be forced to make an extension of available co-location space as long as sufficient allocated space not used is still available.

4.2.2. Shutdown of POST Technologies' Site, Area POP or SLCP

Except when given local circumstances require otherwise, if POST Technologies plans to close one of POST Technologies' Site, Area POP or SLCP in relation to which Co-Location Services are provided, POST Technologies shall submit a written closure notice to the concerned Operator(s) and the ILR at least sixty (60) months in advance of the planned closure date. POST Technologies shall further submit a cease order, at least twelve (12) months in advance of the proposed cease date to allow the Operator to arrange for a suitable alternative.

In addition to the cease order, POST Technologies shall inform the Operator about possible alternative arrangements and, if required, send a corresponding offer in order to ensure that this Operator can continue to provide the telecommunications services affected by such POST Technologies' Site, Area POP or SLCP shutdown.

The Operator will agree upon an effective cessation date with POST Technologies, while such date shall match with POST Technologies' initial proposed date wherever practicable.

If the Operator wishes to continue to provide its telecommunications services to the End Users, it shall submit an order form via the standard process for an alternative arrangement. The timing of this order submission shall be appropriately aligned with the agreed cessation date. The terms and details of such an alternative arrangement or of any suitable alternative solution shall be discussed in good faith and expressly agreed upon by the Parties, which shall for this purpose take into consideration each Party's respective and reasonable constraints.

POST Technologies and the Operator shall further draw up and agree upon a coordinated cessation or migration project plan including agreed time schedules. This plan shall ensure minimal service disruption during the move to any agreed new location, new Co-Location Equipment Room, Area POP or new SLCP.

The Parties undertake to comply with and timely implement the agreed cessation/migration plan in order to timely and properly migrate or cease, as the case may be, the concerned Co-Location Services according to said agreed plan.

For POST Technologies' Sites, Area POPs or SLCPs, where no Co-Location services are provided, POST Technologies will inform at least twelve (12) months in advance on POST Technologies' website of a closure of a POST Technologies' Site, Area POP or SLCP.

4.3. Ceasing process further to the termination of implementation agreement(s) and/or of the Operator's telecommunications license

Either Party shall be entitled to submit a cease order to the other further to the end or termination of the Co-Location Agreement(s) entered into by the Parties, notably in the following cases:

- in the case of termination for contractual breach of the Co-Location Agreement(s) by the Operator in accordance with the rules laid down therein;
- End or termination, whichever may be the reason, of the implementation agreement(s) entered into by the Parties under the applicable RIO and/or the applicable RUO and/or the applicable ROB and/or the applicable ROLLS as the case may be; or
- End or termination in whole or in part of the notification as Operator in Luxembourg, whichever may be the reason, whereby the Operator will cease to be a validly notified Interconnect, Unbundling, Broadband and/or Leased Line Operator in Luxembourg.

In any such case, both Parties shall agree upon a reasonable cessation date and associated project plan, which shall take into account the specificities and constraints of the circumstances leading to the application of this Article 4.3.

4.4. Common steps to be achieved in case of any ceasing process

Prior to and in any case at the latest upon the effective termination date of the Co-Location Services as specified here above for a given Co-Location Equipment Room, Area POP or Co-location Shelter, the Operator shall:

- Pay all remaining or outstanding fees due to POST Technologies in relation to the concerned Co-Location Services;
- Return the concerned Co-Location Space(s) clean, complete and in its(their) original state and, if appropriate, any equipment and materials to their respective owners;
- Remove properly all its equipment, spare parts, test equipment, documentation, etc., located either in the concerned Co-Location Equipment Room, Area POP or Co-location Shelter; and
- Return to POST Technologies all access cards and keys put at its disposal for accessing the concerned Co-Location Space(s).

Failing to do so in due time, POST Technologies shall be entitled to substitute directly or indirectly to the Operator, at the Operator's costs, to proceed with such obligations or to clear out any Operator's residual belongings left in the Co-Location Equipment Room, Area POP or Co-location Shelter as well as to invoice the Operator for the non-returned access cards and keys.

Schedule 5. Tariffs

5.1. Physical Co-Location in a POST Technologies' Co-Location Equipment Room

Building adaptations and basic facility infrastructure	Euro
Monthly charge for the Co-Location Space(s) rental, per footprint 600x600 mm including the accessibility to the equipment. Larger footprints are adapted proportionally.	
Metropolitan area:	113,37
Urban area:	101,91
Rural area:	96,17
Adjacent Co-location (standard shelter type with 25 HU):	
Metropolitan area:	113,37
Urban area:	101,91
Rural area:	96,17
Monthly charge per used Co-Location Equipment Room (covering cleaning and maintenance of all basic facilities)	212,03

Electric Power Installation	Euro
Installation of a 16-25A circuit in a Co-Location Equipment Room (single circuit)	460,05
Installation of an additional 16-25A circuit in the same Co-Location Equipment Room (second circuit)	169,76
Installation of a double 32-63A circuit in a Co-Location Equipment Room (single circuit)	586,98
Installation of an additional 32-63A circuit in the same Co-Location Equipment Room (second circuit)	179,16

Monthly charge for monitored 48V DC Electric Power Consumption:										
Single circuit										
		Installed fuse								
		10A	16 A	20 A	25 A	32 A	50A	63A	80A	100A
Measured current	up to 10 A	69,3	91,66	106,57	125,2	151,28	218,36	266,8	330,15	404,68
	up to 16 A	/	110,89	125,79	144,42	170,51	237,58	286,02	349,37	423,9
	up to 20 A	/	/	138,61	157,24	183,32	250,4	298,84	362,19	436,72
	up to 25 A	/	/	/	173,26	199,34	266,42	314,86	378,21	452,74
	up to 32 A	/	/	/	/	221,77	288,85	337,29	400,64	475,16
	up to 50 A	/	/	/	/	/	346,52	394,96	458,31	532,84
	up to 63 A	/	/	/	/	/	/	436,61	499,96	574,49
	up to 80 A	/	/	/	/	/	/	/	554,43	628,96
	up to 100 A	/	/	/	/	/	/	/	/	693,04

Back-up Circuit for DC 48V circuit. The usage of this second circuit is restricted to a back-up function for the single circuit. It must not be used in parallel with the single circuit. Only in case of a power failure of the single circuit, this second circuit should be used. The installed fuse must be the same as the single circuit. (If an additional power circuit is required, another single circuit should be ordered)

	Installed fuse								
	10A	16 A	20 A	25 A	32 A	50A	63A	80A	100A
Tariffs	22,05	35,28	44,10	55,13	70,57	110,26	138,93	176,42	220,52

5.2. Physical Co-Location in an Area POP

Monthly charge for the Co-Location Rack Space(s) rental, including the accessibility to the equipment. Per Half Rack [1000(W)x800(D)x1100(H) mm]	138,98
Monthly charge per used POST Technologies Area POP (covering maintenance and cleaning)	85,00

Electric Power Installation	Euro
Installation of a 16-25A circuit to a given Co-Location Rack Space in a POST Technologies Area POP (single circuit)	460,05
Installation of an additional 16-25A circuit to a given Co-Location Rack Space in the same POST Technologies Area POP (second circuit)	169,76

Electric Power Consumption					Euro
Single circuit					
Installed fuse					
		10A	16 A	20 A	25 A
Measured Current up to	5A	34,65	53,28	75,64€	93,64
	10A	69,30	91,66	106,57	125,20
	16A	/	110,89	125,79	144,42
	20A	/	/	138,61	157,24

Back-up Circuit for DC 48V circuit. The usage of this second circuit is restricted to a back-up function for the single circuit. It must not be used in parallel with the single circuit. Only in case of a power failure of the single circuit, this second circuit should be used. The installed fuse must be the same as the single circuit. *(If an additional power circuit is required, another single circuit should be ordered)*

	Installed fuse			
	10A	16 A	20 A	25 A
Tariffs	22,05€	35,28€	44,10€	55,13€

5.3. Other Facilities

Access control	Euro
Unique fee for issuing an access card and a physical access key	50,98
Monthly charge for access control by access cards	4,83
Fee in case of loss of a card	26,64
Fee in case of loss of a key	37,49

Special requirements	Euro
POST Technologies manpower for special works required by the Operator - per hour	Current rates available on POST Technologies' Website

Monthly charge for consumption of air-conditioning in a POST Technologies Co-Location Equipment Room

		Installed Fuse								
		10A	16 A	20 A	25 A	32 A	50 A	63 A	80A	100A
Mesured Current	10	34,65	45,83	53,28	62,60	75,64	109,18	133,40	165,07	202,34
	16	/	55,44	62,90	72,21	85,25	118,79	143,01	174,69	211,95
	20	/	/	69,30	78,62	91,66	125,20	149,42	181,09	218,36
	25	/	/	/	86,63	99,67	133,21	157,43	189,10	226,37
	32	/	/	/	/	110,89	144,42	168,64	200,32	237,58
	50	/	/	/	/	/	173,26	197,48	229,16	266,42
	63	/	/	/	/	/	/	218,31	249,98	287,24
	80	/	/	/	/	/	/	/	277,22	314,48
	100	/	/	/	/	/	/	/	/	346,52

Monthly charge for consumption of air-conditioning in a POST Technologies' Area POP

		Installed fuse of main circuit			
		10	15	20	25
Measures current up to	5A	17,33	26,64	37,82	46,82
	10A	34,6	45,83	53,28	62,60
	15A	/	55,44	62,90	72,21
	20A	/	/	69,30	78,62

5.4. Tie Cables and Rack Connection Facilities (RCF)

Rack Connection Facilities - Fibre	Euro
Connection charge for RCFs with 24 fibres Area POP type B)	1.179,-
Connection charge for RCFs with 48 fibres Area POP type C)	2.358,-
Monthly charge for RCFs – per 24 fibres	3,17

Tie cables - Copper	Euro
Connection charge for tie cables - per 100 pairs	2.053,54
Monthly charge for tie cables per 100 pairs	3,17