



FRAMEWORK
FOR
CO-LOCATION AGREEMENT
BETWEEN
[OPERATOR]
AND
PAKISTAN TELECOMMUNICATION COMPANY
LIMITED (PTCL)

CO-LOCATION FRAMEWORK

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1. GENERAL

- 1.1 This Co-location Framework sets out the terms and conditions under which PTCL will provide the Operator with Co-Location Space and physical access thereto at PTCL's Co-location sites listed in **Attachment A** to this **Co-location Framework** (the "**Co-Location Sites**"), as amended from time to time, with prior approval of the Authority. The Co-Location Sites may consist of:

- (a) an Exchange Building for a Point of Interconnection ("**POI**");
- (b) a Satellite Earth Station; or
- (c) a Submarine Cable Landing Station/Frontier Station.

- 1.2 For access to Co-Location Space at Satellite Earth Stations, the Operator must be an LDI and must have acquired or entered into the following before PTCL will provide such access to such places:

- (a) an agreement with the relevant satellite owner; or
- (b) any such licenses as required from time to time to operate satellite services.

For the avoidance of doubt, the interconnection service between the Operator's Co-Location Equipment at the Co-Location Space to the related satellite systems is not covered in this Schedule. PTCL shall offer to provide the interconnection service to the Operator pursuant to a tariff filed with and approved by the Authority.

- 1.3 For access to Co-Location Space at Submarine Cable Landing Stations / Frontier Stations, the Operator must be an LDI and must have acquired or entered into the following before PTCL will provide such access at those places:

- (a) an Indefeasible Rights of Use ("**IRU**") holder to access their acquired capacity of the relevant submarine cable system; or
- (b) as a cable owner of the landed submarine cable system or frontier station to access his or her own capacity of the relevant submarine cable system or frontier station.

The Co-Location Space is solely for the purpose of the Operator to access the respective submarine cable system landed in the station. For the avoidance of doubt, the interconnection service between the Operator's Co-Location Equipment at the Co-Location Space to the related submarine cable systems is not covered in this Schedule. PTCL shall offer to provide the interconnection service to the Operator pursuant to a tariff filed with and approved by the Authority.

- 1.4 In cases where PTCL cannot offer physical Co-Location due to space limitations or any other legitimate reasons, PTCL will take reasonable measures to propose an alternative solution. Such alternative solutions may include options such as virtual Co-location, optimizing the use of existing space or finding adjacent space.

- 1.5 The Operator shall provide all installation materials and manpower needed for the installation of their Co-Location Equipment.
- 1.6 PTCL shall not be responsible for any damage to the Operator's Co-Location Equipment caused by fire, water leakage, air-conditioning/mechanical ventilation failure, power fluctuation/interruption, or anything beyond PTCL's control at the Co-Location Site other than to the extent that it is the result of a grossly negligent, willful or reckless breach of this Co-location Frameworkby PTCL.

2. AVAILABILITY AT A CO-LOCATION SITE

- 2.1 For the purpose of this Schedule, PTCL may have regard to the following when assessing the availability of Co-Location Space at a Co-Location Site:
- (a) PTCL's reasonably anticipated requirements in the next four (4) years for space at the Co-Location Site for the provision to itself and its Customers;
 - (b) PTCL's reasonably anticipated requirements in the next four (4) years for space at the Co-Location Site for operation and maintenance purposes;
 - (c) the Operator and other Third Party requirements (including for operation and maintenance purposes) that have been ordered but not yet delivered or that have been provided;
 - (d) security and confidentiality requirements imposed on PTCL by Governmental Agencies;
 - (e) whether PTCL proposes to decommission the Co-Location Site.

3. ORDERING AND PROVISIONING PROCEDURE

- 3.1 The Operator shall submit its request for Co-Location Space at a Co-Location Site for the POI listed in **Attachment A**, using a Co-Location Request Form in the form of **Attachment B** containing the following information:
- (a) the Co-Location Site listed at which Co-Location Space is sought;
 - (b) confirmation that Co-Location Space is sought at that Co-Location Site for the purpose of:
 - i) interconnection with a POI; or
 - ii) accessing space segment capacity; or
 - iii) accessing submarine cable capacity.
 - (c) the type of Co-Location Equipment proposed to be installed at that Co-Location Site;
 - (d) the space and power requirements;

- (e) the floor loading of the Co-Location Equipment;
 - (f) the capacity of the Transmission Tie-Cable required;
 - (g) the type of optical fibre cable to be used, and the diameter of the fibre cable; and
 - (h) the Operator's contact details.
- 3.2 PTCL shall acknowledge receipt of the Co-Location Request under clause **3.1** within seven (7) Business Days and indicate whether the Co-Location Request is preliminarily accepted on a non-binding basis or rejected. If the Co-Location Request is rejected, PTCL will provide written reasons for such rejection to the Operator. PTCL shall charge registration fee for the Co-Location Request as per Para 2.1(a) Attachment-C of this Framework and no separate fee for processing of Co-location request will be charged.,
- 3.3 PTCL may reject a Co-Location Request if:
- (a) the Operator is not a Licensed Operator of PTA; or
 - (b) the Co-Location Request is not in the prescribed form; or
 - (c) the Co-Location Request does not contain the required information; or
 - (d) there is no available space at the Co-Location Site as determined in accordance with clause **2**;
 - (e) acceptance of the Co-Location Request will give rise to significant health, safety, technical or engineering issues; or
 - (f) the Operator has not satisfied clause **1.2** (in case of Satellite Earth Station) or clause **1.3** (in case of a Submarine Cable Landing Station / Frontier Station).
- 3.4 The Operator's Co-Location Request shall be processed in accordance with the procedures set forth in **Attachment C** hereto.
- 3.5 The Operator acknowledges that the Co-Location Space allocated and the actual placement of the Co-Location Equipment shall be determined by PTCL. PTCL is not obligated to place the same Operator's Co-Location Equipment adjacent to each other, provided that PTCL will use its reasonable endeavours to accommodate any reasonable request for adjacent placement made by the Operator.
- 4. INSTALLATIONS AND MAINTENANCE OF CO-LOCATION EQUIPMENT IN CO-LOCATION SPACE**
- 4.1 The Parties agree to comply with the following procedures (as amended from time to time) in interconnection with the installation and maintenance of Co-Location Equipment:
- (a) the Co-Location Equipment Installation and Maintenance Procedures at **Attachment D**;

- (b) PTCL's Standard Operating Procedures for Co-Location; and
- (c) PTCL's Standard Physical Access Procedures as amended from time to time.

- 4.2 The Operator shall request physical access to Co-Location space using the form set forth in **Attachment E** hereto. PTCL shall authorize the Operator's access to the Co-Location space using the form set forth in **Co-location Framework F** hereto. Only Operator's authorized personnel, as listed in **Attachment G** hereto, shall have access to the Co-Location Space.
- 4.3 The Operator shall pay PTCL the charges in accordance with PTCL's published co-location price list of the main agreement.

5. TERM OF LEASE

- 5.1 The agreement between the Parties regarding each Co-Location Space to be leased under this Co-location Framework shall commence on the date the Operator confirms its acceptance of the charges for the Co-Location Site ("**Commencement Date**") and shall continue for three (3) years for each such POI, Satellite Earth Station or Submarine Cable Landing/Frontier Station (as the case may be) after the Commencement Date, unless terminated earlier in accordance with this Schedule.
- 5.2 PTCL may terminate the lease of Co-Location Space at any time with immediate effect by giving notice to the Operator if the Operator fails to complete the installation of its Co-Location Equipment within thirty (30) Business Days, pursuant to the terms of **Attachment D**. If the Operator's failure to complete installation is attributable to circumstances beyond the Operator's reasonable control, PTCL will grant a reasonable extension of time for installation to the Operator at the Operator's request. An Operator's request under this clause must describe the circumstances beyond the Operator's control and such request must be received prior to the expiry of the aforementioned thirty (30) Business Day period.
- 5.3 The Operator may terminate the lease of Co-Location Space under this Co-location Framework by giving PTCL no less than six (6) months written notice. Termination of the lease will take effect from the date specified in the notice.
- 5.4 Either Party (the "**Terminating Party**") may immediately terminate the lease of Co-Location Space at a Co-Location Site/submarine cable landing station if the other Party is in breach of any clause of this Co-location Framework and such breach remains unremedied for a period of ten (10) Business Days after receiving written notice from the Terminating Party to do so.
- 5.5 PTCL may immediately terminate a lease of Co-Location Space at a Co-Location Site if:
 - (a) the Operator is no Licensed Operator of PTA;
 - (b) the Operator is using the Co-Location Space in contravention of an applicable law, license, regulation or direction and PTCL has the necessary confirmation thereof from the relevant Governmental Agencies;

- (c) the lease of Co-Location Space causes or is likely to cause physical or technical harm to the PTCL Network or to the Co-Location Site including but not limited to causing damage, interfering with or causing deterioration in the operation of the PTCL Network;
- (d) the Co-Location Equipment is used for a purpose other than for the interconnection of the Operator's Network to the PTCL Network;
- (e) the conditions in clause **1.2** are no longer satisfied in the case of a Satellite Earth Station.
- (f) the conditions in clause **1.3** are no longer satisfied in the case of a Submarine Cable Landing Station;
- (g) the Operator removes or abandons its Co-Location Equipment;
- (h) the Operator locates equipment other than Co-Location Equipment in the Co-Location Space;
- (i) the Co-Location Space has become unsafe or unsuitable for its purpose; or
- (j) PTCL's right to own, maintain or operate the Co-Location Site is revoked or terminates or expires.

5.6 PTCL may give the Operator no less than six (6) months' notice at any time during the term that the lease of Co-Location Space is to be terminated because of the closure of that Co-Location Site. The Operator shall bear its own cost associated with the closure of a Co-Location Site. If the Operator requests within thirty (30) Business Days after receiving a notice under this clause alternative solutions from PTCL, PTCL will offer alternative interconnection solutions to the Operator. The alternative interconnection solutions offered must, to the extent feasible, be comparable in terms of cost and functionality and, if accepted by the Operator within sixty (60) Calendar Days from the date of the offer, must permit the full implementation of the alternative interconnection solutions. Nothing in this clause prevents PTCL from terminating the lease of a Co-Location Space at the end of the six (6) month period provided that PTCL has complied with this clause **5.6**.

5.7 Upon expiry or termination of the lease of Co-Location Space:

- (a) the Operator must discontinue the use of its Co-Location Equipment and remove its Co-Location Equipment from the Co-Location Site within thirty (30) Business Days after the expiry of the Operator's contract or from the date of termination of Co-Location Space, whichever is the earlier; and
- (b) PTCL shall reinstate the Co-Location Space and all cables/supports/openings and recover the reasonable cost of such reinstatement from the Operator if damage is caused by the Operator.

5.8 If the Operator fails to discontinue the use of its Co-Location Equipment and remove its Co-Location Equipment under clause **5.7**, PTCL shall remove the Operator's Co-

Location Equipment and reinstate the Co-Location Site to its original condition. The Operator shall pay to PTCL all reasonable costs associated with the work undertaken by PTCL including the disposal of the Co- Location Equipment. In such event, the Operator shall have no claim whatsoever, against PTCL.

- 5.9 Upon termination of the contract of Co-Location Space, any physical access granted to the Co-Location Site shall also be terminated.
- 5.10 Upon termination by the Operator under clauses **5.3** or **5.4** and by PTCL under clauses **5.2**, **5.4** or **5.5** prior to the expiry of the lease term referred to in clause **5.1**, the following charges shall be recovered from the Operator but only where PTCL has, at its discretion, constructed additional Co-Location Space and has not recovered the full cost of site preparation work from the Operator from upfront site preparation work charges:
- (a) contract charges for the remainder of the original contract term;
 - (b) outstanding pro-rata site preparation work charges.

6. SUB-LEASING

- 6.1 The Operator shall not assign the lease in respect of or sub-let the Co-Location Space at the Co-Location Site.

7. ADDITIONAL CO-LOCATION SPACE AND CO-LOCATION EQUIPMENT

- 7.1 If the Operator wishes to replace, modify or rearrange existing Co-Location Equipment in the Co-Location Space or to install additional Co-Location Equipment in the Co-Location Space, the Operator must submit a request in respect of the replacement, modification, rearrangement or additional Co-Location Equipment.
- 7.2 Requests for additional Co-Location Space at Co-Location Sites shall be treated as a separate Co-Location Request and the process of ordering and provisioning in clause **3** of this Co-location Framework shall apply.

ATTACHMENT – A: LIST OF POSSIBLE CO-LOCATION SITES

POINT OF INTERCONNECTION INFORMATION

[illegible]

List of Possible Co-Location Sites at Satellite Earth Station

Serial Number Description of Co-Location Site

- LIST 3: SUBMARINE CABLE LANDING STATION / FRONTIER STATION**

List of Possible Co-Location Sites at Submarine Cable Landing Station / Frontier Station

Serial Number	Description of Co-Location Site
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- 1Submarine Cable Station, Karachi
2Submarine Cable Station, Karachi

ATTACHMENT- B : REQUEST FOR CO-LOCATION SPACE

THE REQUESTING OPERATOR

Date of Application Application Reference No

Request for Physical Co-Location is sought for the purpose of:

[POI / SATELLITE EARTH STATION / SUBMARINE CABLE STATION]

Address of Co-Location Site [Address / Building Name]

Type of Eqpt. to be Installed [Description / Manufacturer / Dimensions]

Co-Location Space Required [Dimensions & Floor Area to be Occupied]

Power Requirements [Power Consumption]

Floor Loading of Eqpt. [Weight of Eqpt. Fully Installed]

Capacity of Transmission /
Sub Loop Tie-Cable [Size & Pair of Tie-cable]

Type of Fiber & its Diameter [No of Fibre Strand and Cable Diameter]

On Behalf Of The Operator

Sign _____

Name Name of Operator

Designation

Department

Contact Number Company Stamp

Fax Number

PTCL Reply To The Requesting Operator

☐ Application returned – incomplete / illegible

☐ Not Approved Reasons for rejection [Reasons]

☐ Approved PTCL Approval Code Approval Code

On Behalf of PTCL

Sign _____ Contact Number

Name Fax No

Processing Status

Received Date Processed Date Queue Status

ATTACHMENT C – PROCEDURE FOR REGISTRATION AND PROCESSING OF CO-LOCATION REQUESTS

1. GENERAL

- 1.1 This Annex describes the standard operating procedures regarding the provision of Co-Location Space to the Operator at Co-Location Sites. PTCL will provide:
- (a) Telco Grade space to the customer without any liabilities against PTCL at PTCL Co-Location Sites;
 - (b) 24 hour manned building security;
 - (c) the facility of customer's reception, monitoring system, equipment area, transmission/media and indoor cabling, shall be at the Operator's cost; and
 - (d) physical access to the authorized personnel of the Operator' to PTCL premises in accordance with the physical access procedures described in this Schedule.

2. OPERATOR'S REGISTRATION

- 2.1 The Operator must:
- (a) apply for registration of the demand for Co-Location along with Rs. 10,000/- in the form of Pay Order /Demand Draft as registration fee. This registration fee includes application processing fee also, and no any separate or additional fee will be charged on the plea of processing the subject request for Co-location;
 - (b) upon confirmation of availability of Co-Location Space, deposit an amount equivalent to three months rent as security. The rent shall be paid on quarterly basis in advance; and
 - (c) Operator shall apply for Co-Location Space to General Manager (Interconnection) PTCL as per application form attached to this Schedule.

3. INTERCONNECTION STRUCTURE

- 3.1 The Point of Interconnection between the Parties will be decided on the basis of equipment/system being installed for which respective agreement will be separately signed.
- 3.2 The Point of Interconnection for the transmission system shall be the DDF installed for this purpose by PTCL in transmission hall.
- (a) GM (Interconnection) PTCL will approve the request for co-location space and take all the necessary steps including coordination with the field units for the implementation/provisioning of the co-location facilities to the requesting operator.
- 3.3 A workflow diagram is attached as **Attachment H** to this Framework.

A. TIME FRAME FOR THE PROVISIONING OF CO-LOCATION SPACE

S. No.	Activity	Working Days	Action By
1.	Application file for Co-location along with Registration fee	t 0	OLO applies to GM Interconnect
2.	Scrutiny of application and allocation of priority number and acknowledgement	t 0 + 2	GM Interconnect
3.	Feasibility report for space from GM (S&T) or Dir Digital	t 0 + 4	GM Interconnect
4.	Provision of feasibility report	t 0 + 11	GM (S&T) or Director Digital
5.	Issuance of approval / rejection letter along with demand note (if feasible) of rental and three months advance for utility bills	t 0 + 13	GM (Interconnection Implementation)
6.	Payment of demand note	t 0 +15 ~ t 0 + 28	OLO
7.	Provisioning of max. load capacity certificate	t 0 + 20 ~ t 0 +33	OLO
8.	Modification of co-location space (if required)	t 0 + 50 ~ t 0 + 63	OLO
9.	Final site inspection	t 0 + 57 ~ t 0 + 70	OLO + GM (Interconnection Implementation)
10.	Installation of co-location equipment	t 0 + 87 ~ t 0 + 100	OLO

ATTACHMENT-D - CO-LOCATION EQUIPMENT INSTALLATION AND MAINTENANCE PROCEDURES

1. INSTALLATION OF EQUIPMENT AT CO-LOCATION SPACE

1.1 Installation of Co-Location Equipment

- (a) Prior to commencing installation of its Co-Location Equipment, the Operator must submit detailed installation plans and installation timetable no less than twenty one (21) Business Days before commencement of works for approval to GM (Interconnection). The Operator shall not commence installation of its Co-Location Equipment until it has received PTCL's approval.
- (b) The Operator must ensure that the floor loading of its Co-Located Equipment shall be limited to a maximum 5 kN per sqm or otherwise as specified by PTCL. The Operator shall engage a professional structural engineer licensed by Pakistan Engineering Council to compute the actual floor loading to certify that the floor-loading limit is not exceeded prior to the installation of its Co-Location Equipment. The Operator shall not commence installation of its Co-Location Equipment until it has provided PTCL; with five (5) Business Days advance notice, of a copy of the certification of compliance issued by the licensed professional structural engineer.
- (c) The Operator must install its Co-Location Equipment in the Co-Location Space within thirty (30) Business Days after the final site inspection. If the Operator's failure to complete installation is attributable to circumstances beyond the Operator's reasonable control, PTCL will grant a reasonable extension of time for installation to the Operator at the Operator's request. Operator's request under this clause must describe the circumstances beyond the Operator's control and such request must be received prior to the expiry of the aforementioned thirty-(30) Business Day period.
- (d) The Operator must not locate equipment other than Co-Location Equipment in the Co-Location Space.

1.2 Optical Fibre Cable

- (a) Unless otherwise agreed by the Parties, the Operator must not install more than two physical optical fibre cables in the Co-Location Space and up to the lead-in manhole outside Co-Location space.
- (b) Unless otherwise agreed by the Parties, the Operator shall only be permitted to terminate eight (8) fibre strands per fibre cable at the Co-Location Space.

1.3 Cable Pulling

- (a) The Operator shall provide PTCL with no less than ten (10) Business Days for undertaking cable pulling between the designated Lead-in Manhole and the Co-Location Space.

- (b) Unless otherwise agreed by the Parties, PTCL shall pull not more than two (2) fibre cable(s) from the designated manhole to the Co-Location Space. The Operator shall pay PTCL the charges in accordance with PTCL's published co-location price list for undertaking this activity. The Operator must not undertake any cable pulling between the designated manhole and the Co-Location Space.
- (c) PTCL shall install and terminate Tie Cables from the Operator's termination frame to PTCL's Distribution Frame (MDF/DDF/Patch Panel). The Operator shall pay PTCL the charges for extension of these Tie cables.
- (d) The Operator shall terminate the end of a Tie Cable at the Operator's termination frame or Co-Location Equipment in the Co-Location Space.

1.4 Power & Earth

- (a) PTCL shall, if the Operator so desires, designate and provide the communication earth and Power Distribution Point for the Operator's Co-Location Equipment. The Operator shall pay PTCL the charges for the provision of the communication earth and power installation and termination in accordance with PTCL's published co-location price list.

1.5 Interference

- (a) Each Party shall ensure that its Co-Location Equipment does not cause any interference to the other Party's equipment, plant, facilities, Networks and the equipment of other occupying Operators in the Co-Location Space, including when installing equipment. In the event of any interference, the Parties shall take in good faith reasonable measures to resolve the problem promptly. Where the Operator's equipment is causing interference to existing equipment and the interference cannot be resolved, the Operator shall remove the source of interference immediately.
- (b) If PTCL determines that the interference poses an immediate risk of personal injury or significant property damage; it may, withdraw physical access and at the Operator's cost, take measures necessary to prevent such injury or damage. Otherwise, PTCL may provide the Operator with five (5) Business Days notice to rectify the interference. After such time, if the interference continues, PTCL may withdraw physical access and at the Operator's cost, take measures to prevent the interference.

1.6 Standard Operating Procedures and Safety

- (a) In relation to the installation, operation and maintenance of its Co-Located Equipment located in the Co-Location Space, the Operator must comply with PTCL's Standard Operating Procedures for Co-Location Space as amended from time to time, and any written instructions, which are provided to the Operator by PTCL.

- (b) In relation to physical access to the Co-Location Space, the Operator shall comply with PTCL's Standard Physical Access Procedures as amended from time to time and any written instructions, which are provided to the Operator by PTCL.
- (c) The Operator shall remove daily any rubbish/debris created in the course of installation.
- (d) GM (Interconnection) will get the Co-Location Space inspected by the field units to which access has been approved for the installation, modification, replacement or addition of the equipment to verify that the Operator is undertaking the installation, modification, maintenance, operation, replacement or addition of the equipment in accordance with the approved and such other written instructions provided to the Operator.
- (e) Where, as a result of an inspection under sub-clause **1.6(d)**, GM (Interconnection Implementation) notifies the Operator that its installation is not in accordance with the approved request, the installation plans, PTCL's Standard Operating Procedures for Co-Location or such other written instructions provided to the Operator, the Operator must take appropriate corrective action within five (5) Business Days of notice. If the Operator fails to do so, PTCL may withdraw physical access or undertake the appropriate corrective action and recover the reasonable cost from the Operator accordingly.
- (f) The Operator shall consult with and obtain the consent of PTCL before carrying out any hacking or drilling work on the floor, wall and ceiling slabs.
- (g) The Operator shall obtain prior approval of PTCL for hot work and perform any such works in accordance with safety procedures. Hot Work means any work involving riveting, welding, flame cutting, burning, gouging or any other work involving the use of heat for producing sparks.
- (h) No work shall be performed by the Operator on any of PTCL's equipment, facilities, plant or Networks including, but not limited to earth bars and Power Distribution Points/boards.
- (i) The Operator, during and after the installation period, shall use no flammable or hazardous materials, whether on a permanent or temporary basis, No smoking is allowed. No food or drinks are allowed in the Co-Location Space.
- (j) PTCL's staff shall carry out all the interconnection of the Operator's Co-Location Equipment to PTCL's earth bars and Power Distribution Points/boards. Charges for the work shall be borne by the Operator as set out in PTCL's published co-location price list.
- (k) Where, during the course of installation, operation, maintenance, replacement or repair of its Co-Located Equipment the Operator causes any damage to PTCL's Co-Location Site, plant, Network, Equipment or facilities, the Operator must report the damage immediately to PTCL. PTCL shall rectify the damage in any way it deems fit, the cost and expense thereof shall be borne by the Operator.

- (l) The Operator shall report immediately any incident, injury, harm, fatal or otherwise that occurs at the Co-Location Site to PTCL. For fatal or serious accidents, the accident site shall be left undisturbed to facilitate the relevant authority to investigate the circumstance leading to the accident. The Operator shall report immediately to police and insurance company of any fatal accident having occurred at the Co-Location Site.
- (m) The Operator shall be liable for and shall indemnify and keep indemnified PTCL against all losses, claims, proceedings, damages, liabilities, costs and expenses for injuries or death to any person whomsoever or any loss or damage to any property whatsoever which arise out of or in consequence of any act or omission of the Operator's employees and contracts in relation to the Co-Location Site and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof.

1.7 Final Inspection

- (a) Upon completion of the installation of the Co-Location Equipment in the Co-Location Space, the Operator shall advise PTCL and request PTCL to conduct a final inspection and confirm that the installation conforms with the approved detailed installation plans.
- (b) Where the final inspection reveals that the installation does not materially conform to the approved detailed installation plans; PTCL shall notify the Operator. The Operator must reinstall or take other appropriate corrective action within ten (10) Business Days of notification, or such other time as is otherwise agreed. PTCL may still inform and require the Operator to make adjustments to its installation where the installation does not conform to the installation plan in a non-material way, but this notification will not delay the approval process under this Schedule.
- (c) If the Operator fails to reinstall or take the appropriate corrective action referred to in clause **1.7(b)** PTCL may take appropriate corrective action including removal of the Operator's Co-Location Equipment. The reasonable costs for the corrective action shall be borne by the Operator.

2. MAINTENANCE OF CO-LOCATION EQUIPMENT IN CO-LOCATION SPACE

- 2.1 The Operator shall be responsible for the operation and maintenance of its Co-Location Equipment.
- 2.2 In the operation and maintenance of the Co-Location Equipment, the Operator must:
 - (a) take such other action as a reasonably prudent Operator would; and
 - (b) keep the Co-Location Space in a tidy and safe condition at all times; and
 - (c) ensure that flammable or toxic material is not left in or around the Co-Location Space following maintenance or other operations.

- 2.3 If a fault, defect or problem with the Co-Location Equipment of the Operator causes or may cause damage to the Co-Location Space or PTCL's Facilities, the Operator must:
- (a) notify PTCL as soon as practicable; and
 - (b) repair the fault, defect or problem or take other appropriate corrective action immediately.
- 2.4 Where PTCL determines that the Operator's Co-Location Equipment pose an immediate risk of personal injury or significant property damage, it may, at the Operator's cost, take interim measures necessary to prevent such injury or damage, pending attendance by the Operator to perform corrective work.
- 2.5 The Co-Location Equipment must only be used by the Operator for the purpose of connecting the Operator's Network to POI, Satellite Earth Station, or a Submarine Cable Landing Station under this Schedule.
- 2.6 If the Operator detects a fault, defect or problem in a Co-Location Space, it must notify PTCL as soon as possible.

2.7 Compliance

- a) The Operator must ensure that its employees, agents and approved subcontractors comply with the provisions of this document including all reasonable procedures and directions of PTCL as notified from time to time.
- b) The Operator must comply with all laws, standards, authorizations and leases when performing works.
- c) The Operator must ensure that it has all necessary permits, approvals and leases from any person, governmental, regulatory or relevant authority in order to perform works. Where requested to do so, PTCL will reasonably assist the Operator to obtain any such necessary permit, approval or lease.
- d) The Operator will vests no right, title or proprietary interest in the Co-Location Site.

2.8 Marking of Equipment

- a) The Co-Location Equipment must be marked by the Operator to clearly indicate that it is leased by the Operator and in such manner as PTCL may reasonably direct from time to time.

ATTACHMENT- E: REQUEST FOR PHYSICAL ACCESS TO CO-LOCATION SPACE

THE REQUESTING OPERATOR		
Date of Application	<input type="text"/>	Application Reference No <input type="text"/>
Approval for Physical Access is sought for the purpose of:		
<input type="text" value="[Emergency Service Affecting / Non-Service Affecting Noramal]"/>		
Address of Co-Location space	<input type="text"/>	
Reference Date / Time of Access	<input type="text"/>	
Estimated Duration of Access	<input type="text"/>	
Name of Person(s) for which Physical Access is required		
1	Name of Person & NIC No / Passport No	
2		
On Behalf Of The Operator		
Sign <input type="text"/>		
Name	<input type="text"/>	Name of Operator <input type="text"/>
Designation	<input type="text"/>	
Department	<input type="text"/>	
Contact Number	<input type="text"/>	Company Stamp <input type="text"/>
Fax Number	<input type="text"/>	
PTCL Reply To The Requesting Operator		
Application returned – incomplete / illegible		
Not Approved	Reasons for rejection	<input type="text" value="[Reasons]"/>
Approved Subject to Details & Conditions Given in The Attached Letter of Authorization		
Alternative Date & Time	PTCL Approval Code	
On Behalf of PTCL		
Sign	<input type="text"/>	Contact Number
Name	<input type="text"/>	Fax No
Contact Number	<input type="text"/>	Company Stamp
Fax Number	<input type="text"/>	<input type="text"/>
Processing Status		
Received Date	Processed Date	Queue Status

ATTACHMENT – F

LETTER OF AUTHORISATION FOR PHYSICAL ACCESS TO CO-LOCATION SPACE

This Letter of Authorization is issued in conjunction with the final approval given to the request application via reference _____ date _____

It must be carried in the possession of the senior person at all time during the duration of access granted to the Co-Location space as indicated below

Location of Co-Location space granted for Access: [Location / Building Name]

1. Name & NIC No / Passport No
2. Name & NIC No / Passport No
3. Name & NIC No / Passport No

1. Approved Date of Access
2. Approved Time of Access
3. Approved Duration of Access

On Behalf of PTCL

Sign _____

Contact Number

Name

Fax No

ATTACHMENT G – AUTHORIZED PERSONNEL

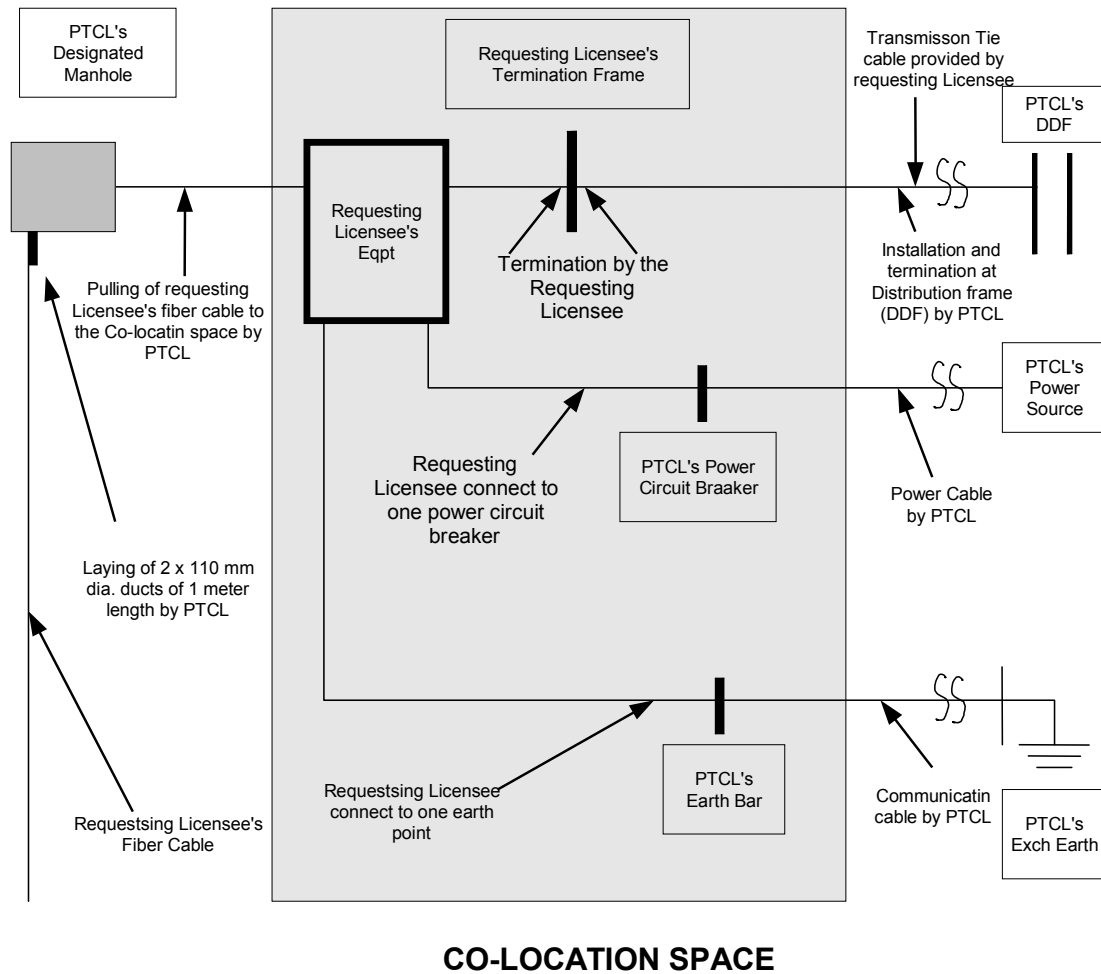
[Source: PTCL]

S/n	Name	Company Name / Operator A's Contractor Name	NIC /Passport No	Contact Tel. No	Fax No
1					
2					
3					
4					
5					
6					
7					

ATTACHMENT H

Installation of Co-Location Equipment at Point of Interconnection (POI)

The diagram below depicts the arrangement for installation of a requesting Licensee's equipment at PTCL's Exchange.



ATTACHMENT-I TO CO-LOCATION FRAMEWORK RATES & RENTALS

Effective: 1st July 2003

CO-LOCATION RATES AND RENTALS

Rates for different co-location services are given below.

1. POWER RATES.

1.1 Purpose built Co-location Centers with air-conditioning

- i. Power rate for AC (220 V) is Rs. 1500 (rupees fifteen hundred) per ampere per month including backup power and air-conditioning.
- ii. Power rate for DC (48 V) is Rs. 900 (rupees nine hundred) per ampere per month including backup power and air-conditioning.

1.2. Ordinary space

- i. Power rate for AC (220 V) is Rs. 1000 (rupees one thousand) per ampere per month including backup power and air-conditioning.
- ii. Power rate for DC (48 V) is Rs. 600 (rupees six hundred) per ampere per month including backup power and air-conditioning.
- iii. Power for individual air conditioners to be installed, if any, by the tenant will be subject to above rates.

2. Cages/enclosed space

2.1 Purpose built Co-location Centers

Space rate for purpose built co-location centers will be Rs. 78 (rupees seventy eight) per sq-ft per month. This includes purpose built co-location space at designated centers with 24 hours air conditioning and generator for power backup. The area for cage of 7'W and 8'D and 10'H will be 56 sq-ft (7'W X 8'D). The minimum space for cabinet of 2'W, 3D' and 8'H will be 14 sq-ft {(2'W X (3'D + 2+2))}.

2.2 Ordinary space

Space rate for ordinary space (simple covered area) in existing exchanges without air-conditioning, with no power supply back up and without other allied facilities will be Rs. 17 (rupees seventeen) per sq-ft per month. An additional amount of Rs. 15 (rupees fifteen) per sq-ft per month will be charged if the tenant wants backup generator power in

ordinary space (simple covered area). Thus the total rent of ordinary space with stand by power will be Rs. 32 (rupees thirty two) per sq-ft per month.

3. Co-location on Rooftop

Rent for Rooftop space is Rs. 16.50 (rupees sixteen and fifty paisas) sq-ft per month.

3.1 Dish/Dish Antenna on Rooftop

Rent for rooftop dish antennas (VSAT or simplex satellite services) will be Rs. 16.5 (rupees sixteen and fifty paisas) per sq-ft per month. The area of the antenna will be calculated by adding 6 ft. roaming area to the each sides of the square to the diameter of the dish. For instance, if the diameter of the dish is 12 feet, the total area for dish antenna will be $(12+6+6) \times (12+6+6) = 576$ sq-ft. In this calculation, 12 is variable according to the diameter of the dish and all other parameters are fixed. Addition space of 100 sq-ft (fixed) will be added for cable runways. Total chargeable area in above example will be $(576+100)= 676$ sq-ft.

3.2 Self Supported Towers on Rooftop

Rent for rooftop self supported towers will be Rs. 50,000 (rupees fifty thousand) per month for 30 meter height. Rates for additional height (higher or lower) will be calculated on the basis of this rate.

3.3. Guyed Wired Towers on Rooftop

Rent for guyed wired tower on rooftop to be installed by tenant will be Rs. 16.50 (rupees sixteen and fifty paisas) per sq-ft per month. Area will be calculated on the basis of actual space utilization from the anchor points of guyed wires connected in square and two feet roaming space will be added at each side of the square. For instance, if the distance between two anchor points is 40 ft. the total area will be $(40+40+2+2) \times (40+40+2+2) = 7,056$ sq-ft. Additional 100 sq-ft will be added for cable runways. The total chargeable area in this example comes to 7,156 sq-ft.

3.4. Dish Antenna on tenant's installed self supported Towers on rooftop

Rent per antenna installed on tenant's own self supported towers on rooftop will be Rs. 5,000 (rupees five thousand) per antenna per month, provided, however that first antenna installed by tenant will be at zero charge.

4. Open Space

Rent for open space is Rs. 11 (rupees eleven) per sq-ft per month.

4.1. Guyed Wired Towers in open space

Rent for guyed wired tower space in open areas (ground) to be installed by tenant will be Rs. 11 (rupees eleven) per sq-ft per month and rent for cable runway space in covered area will be charged at Rs. 17 (rupees seventeen). Area will be calculated on the basis of actual space utilization from the anchor points of guyed wires connected in square and two feet roaming space will be added at each side of the square. For instance, if the distance between two anchor points is 40 ft. the total area will be $(40+40+2+2) \times (40+40+2+2) = 7,056$ sq-ft. Additional 100 sq-ft will be added for cable runways. The total chargeable area in this example comes to 7,156 sq-ft.

4.2 Self supported Towers in open space

The rates for self supported towers per month in open space will be as under:-

	Self Supported Towers in Open Space	Rs. Per month
1.	30 m High	33,000
2.	50 m High	42,000
3.	60 m High	45,000
4.	70 m High	50,000
5.	80 m High	55,000

4.3 Dish Antenna on tenant's installed self supported Towers in open space

PTCL will charge no rent for installation of own dish antenna (for tenant own use) on tenant's installed self supported towers, in any quantity provided the engineering design of the tower permits. The tenant will submit the engineering design of the tower to PTCL at the time of application for installation of tower.

4.4. Dish Antenna by third party on tenant's installed self supported Towers in open space

The tenant will be allowed to install dish antenna by the other licensed operators at his own tower installed at open space (ground level), provided that tenant will pay PTCL Rs. 5,000 (rupees five thousand) per antenna per month. The installation of other licensed operators antenna will be subject to permission by PTCL.

5. Dish Antenna on PTCL Towers

PTCL will charge Rs. 10,000 (rupees ten thousand) per antenna installed on PTCL towers installed on rooftop as well as in open space.

6. **GST/other taxes**

GST for co-location facilities will only be applicable if levied by CBR and will be paid by the tenant. Previous amount paid by the tenant on account of GST, if not applicable by CBR, if any, will be reimbursed/adjusted to the tenant by PTCL. Local taxes, if any, levied by statutory Govt. Bodies on the towers and antenna installed by the tenant will be borne by the tenant.

7. The rates are same throughout the country.

8. Summary of Co-location Tariff.

SUMMARY OF COLOCATION TARIFF			
Sr.No.	Particulars		Monthly Rentals
1	Covered Space	i. <u>Purpose Built Co-Location Center</u> (With facility of standby Power)	i. Rs. 78/Sq. ft.
		ii. <u>Ordinary covered space in Exchange.</u> (With facility of standby Power)	ii. Rs. 32/Sq ft.
		iii. <u>Ordinary covered space in Exchange.</u> (Without facility of standby Power)	iii. Rs. 17/Sq ft.
2	Open Space	i. <u>Open Space on ground</u>	i. Rs. 11/Sq ft.
		ii. <u>Open Space on rooftop</u>	ii. Rs. 16.50/Sqft.

3	Towers	<p>i. <u>Self Supported Tower on Rooftop (30 meter high)</u></p> <p>(For additional height, rates will be calculated on the basis of above rates)</p> <p>ii. <u>Guyed wired Towers on Roof Top</u></p> <p>Actual space utilization will be calculated according to following formula $(2 D + 2 + 2) \times (2 D + 2 + 2)$ Where D is distance between two anchor points and two feet are added on either side of square.</p> <p>iii. Add 100SQFT for cable runway for Roof Top Guyed Tower.</p> <p>iv. <u>Self Supported Tower on Ground</u></p> <p>a. 30 meter height</p> <p>b. 50 meter height</p> <p>c. 60 meter height</p> <p>d. 70 meter height</p> <p>e. 80 meter height</p> <p>V. <u>Guyed wired Towers on ground</u></p> <p>V.a. Actual space utilization will be calculated according to following formula $(2 D + 2 + 2) \times (2 D + 2 + 2)$ Where D is distance between two anchor points and two feet are added on either side of square.</p> <p>V.b. The cable runway shall be charged at actual length at the rates applicable for open and covered space.</p>	<p>i. Rs. 50,000/-</p> <p>ii. Rs. 16.50/Sft. X (Actual Space utilization)</p> <p>iii. Rs. 16.50/Sft</p> <p>a. Rs. 33,000</p> <p>b. Rs. 42,000</p> <p>c. Rs. 45,000</p> <p>d. Rs. 50,000</p> <p>e. Rs. 55,000</p> <p>v.(a). Rs. 11/Sqft X (Actual Space utilization)</p> <p>V.b. Rs. 11/Sq-ft in open area and Rs. 17/Sq-ft in covered areas.</p>
4	Dish Antenna	<p>i. <u>Rent for Dish Antenna on Roof Top</u></p>	

		<p>Actual space utilization will be calculated according to following formula $(R + 6 + 6) \times (R + 6 + 6)$ Where R is radius of Dish Antenna and Six feet are added on either side of square of diameter as roaming space. Additional 100 feet will be added for cable runway, which will be charged as per rate in the next column.</p> <p>ii. <u>Rent for Dish Antenna on PTCL Tower</u></p> <p>iii. <u>Rent for Dish Antenna(s) any number on tenant's own Tower on the ground for own use.</u></p> <p>iv. <u>Additional Antenna of third party at Tenant's Tower</u></p> <p>(One Antenna on tenant's installed tower on rooftop is free. Each additional antenna will be charged at specified rates, provided engineering design permit installation of additional Antenna).</p>	<p>i. Rs. 16.50/Sqft X (Actual Space utilization)</p> <p>ii. Rs.10,000</p> <p>iii. No charges</p> <p>iv. Rs. 5,000 per antenna.</p>
5	Charges for Electric Power	<p>i. <u>Purpose Built Co-location Centers with Air-conditioning (Including backup power)</u></p> <p>a. AC 220 V</p> <p>b. DC 48 V</p> <p>ii. Ordinary Space</p> <p>a. AC 220 V</p> <p>b. DC 48 V</p> <p>*Power for individual Air-conditioner (to be installed by the tenant), if required will be subject to additional charge at the above rates.</p>	<p>i. Purpose Built Co-location</p> <p>a. Rs. 1,500 /Amp</p> <p>b. Rs. 900/Amp</p> <p>ii. Ordinary Space</p> <p>a. Rs.1,000/Amp*</p> <p>b. Rs. 600/Amp</p>

Notes:-

- a. Application shall accompany a draft/pay order amounting to Rs. 10,000/- in the name of PTCL as registration/application processing fee.
- b. The customer shall deposit an amount equivalent to three months rent (rent includes space charges as well as utility bills) as security.
- c. The rent shall be paid on quarterly basis in advance.

ATTACHMENT-J: INTERPRETATION/DEFINITIONS USED IN CO-LOCATION FRAMEWORK

1. INTERPRETATION

- 1.1 A term or expression used in this document that starts with a capital letter, has the meaning given as under.
- 1.2 In this Co-location Framework for obtaining a co-location, unless the context otherwise requires:
 - a. the singular includes the plural and vice versa;
 - b. words which are gender neutral or gender specific include each gender;
 - c. other parts of speech and grammatical forms of a word or phrase defined in this Co-location Framework have a corresponding meaning;
 - d. an expression importing a natural person includes a company, partnership, joint venture, association, corporation or other body corporate and a Government Agency;
 - e. a reference to a thing (including, but not limited to, a chose-in-action or other right) includes a part of that thing;
 - f. a reference to a clause, party, Schedule, Annex or Attachment is a reference to a clause of this Co-location Framework, and a party, schedule, Annex or Attachment to, this Co-location Framework, and a reference to this Co-location Framework includes a Schedule, Annex or Attachment to this Co-location Framework;
 - g. a reference to a law includes a constitutional provision, treaty, decree, convention, statute, regulation, ordinance, by-law, judgment, rule of common law or equity OR
 - h. a rule of an applicable regulatory authority or stock exchange and is a reference to that law as amended, consolidated or replaced;
 - i. a reference to a document includes all amendments or supplements to that document, or replacements or novations of it;
 - j. a reference to a party to a document includes that party's successors and permitted assigns;
 - k. an agreement on the part of two or more persons binds them jointly and severally; and
 - l. a reference to an agreement, other than this Co-location Framework, includes an undertaking, deed, agreement or legally enforceable arrangement or understanding, whether or not in writing.
- 1.3 Where the day on or by which something must be done is not a Business Day, that thing must be done on or by the following Business Day.

- 1.4 Headings are for convenience only and do not affect the interpretation of this co-location framework.
- 1.5 1.6 The following definitions apply to words and phrases used in this co-location framework unless an alternative context is stated to apply:

2 DEFINITIONS

« **ACT** » means the Pakistan Telecommunication (Re-organization) Act, 1996.

“**Authority**” means the Pakistan Telecommunication Authority (PTA) established under section 3 of the Act

“**Building MDF**” means main distribution frame located in PTCL building;

“**Business Day**” means any day of the week other than notified “weekly off” day/days and the gazetted public holidays of the Islamic Republic of Pakistan;

“**Calendar Day**” means any day of a calendar year, including Saturdays, Sundays and gazetted public holidays of the Islamic Republic of Pakistan;

“**Charges**” refers to the charges payable by Operators as attached and which are subject to change;

“**Co-Location**” means the location of Co-Location Equipment in Co-Location Sites under this Co-location Framework;

“**Co-Location Equipment**” means the equipment that is approved for Co-Location under this Co-location Framework;

“**Co-Location Request**” means a request for Co-Location made under this Co-location Framework;

“**Co-Location Request Form**” means the application form prescribed in Attachment G of this Co-location Framework;

“**Co-Location Site**” means any site at which Co-Location is permitted pursuant to **Schedules 9** of RIO;

“**Co-Location Space**” means space and such facilities as may be agreed to by the Parties to be provided by PTCL at the Co-Location Site for the installation and operation of Co-Located Equipment;

“**Customer**” for the purposes of this Co-location Framework, means, a person;

having a contract with either or both Parties for the provision of telecommunication services by means of that Party's System; or

user of telecommunication apparatus directly connected to the PTCL Network or the Operator Network; or

having a contract with a reseller of telecommunication services to be provided by means of either the PTCL Network or the Operator Network or a user of telecommunication apparatus authorised by that person;

“DDF” means Digital Distribution Frame;

“Decommissioning” means:

the closure, replacement or relocation of an Interconnect Gateway Switch (IGS) in respect of which an Interconnect Link is connected;

closure, replacement or relocation of an Interconnect Link; and/or

closure of a Point of Interconnection.

“Dispute Resolution” or “Dispute Resolution Procedure” refers to the procedure mutually agreed to by PTCL and Operator in their respective Co-location Agreement and approved by the Authority;

“Due Date” a date being 14 Calendar days after the date of an invoice, or if such 14th calendar day falls on a date other than a Business Day, the date of the previous Business Day;

“E1” means a unit of 2Mbps of Capacity;

“Effective Date” means the date on which this Co-location Framework is approved by the Authority;

“Emergency Event” means an event which causes or is likely to cause significant damage to the Network of a Party or which endangers or is likely to endanger the health or safety of any person;

“Emergency Organization” means the relevant local public police, fire, ambulance and coastguard services and other similar organisation providing assistance to the public in emergencies;

“Gateway Exchange” means Interconnect Gateway Switch;

“Government Agency” means any department or statutory board operated by or accountable to a ministry or organ of state within the Islamic Republic of Pakistan;

“GST” means General Sales Tax imposed under the *Taxation Act*, of Pakistan;

“IDF” means Intermediate Distribution Frame;

“Jumper Wires” means the copper wires installed at the MDF to cross-connect two termination points;

“LDI” means a Long Distance and International Telecommunications Services Operator;

“License” means a telecommunication service license issued by the Authority;

“LL” means Local Loop Operator;

“Local Leased Circuit” means PTCL’s dedicated 2Mbps transmission service;

“Local Loop” means the loop from MDF to Distribution Point;

“MDF” means Main Distribution Frame;

“Network” means a telecommunication system of a Party which is used or intended to be used for telecommunications;

“Operator” means a licensee of PTA including LL or LDI that uses switching or routing equipment to provide telecommunication services to the public and that submits a written application to acquire Services under this Co-location Framework;

“Operator Network” means a Network owned or operated by the Operator;

“Pakistan” means the Islamic Republic of Pakistan;

“Pakistan Rupee” or **“Rs”** mean the currency of Pakistan;

“Pakistan Telecommunication Company Limited” or **“PTCL”** means the successor to the Pakistan Telecommunications Corporation, granted a license to offer telecommunications services by the Authority on April 15, 1997;

“Parties” means the Operator and PTCL;

“Party” means the Operator or the PTCL, as the case may be;

“Physical Interconnection” has the meaning ascribed to it in **Co-location Framework2** of this Co-location Framework;

“POI” means Point of Interconnection;

“Point of Interconnection” a physical point where the PTCL Network and the Operator Network are connected for Calls to be handed over from one System to the other;

“PTCL Network” means the Network owned or operated by PTCL;

“Site Preparation Works” means any work undertaken by PTCL to permit Co-location;

“Standard Operating Procedures” or **“SOP”** means the published standard operating procedures at PTCL;

“Sub Loop” means part of a Local Loop;

“Submarine Cable Landing Station/Frontier Station” has the meaning ascribed to it in **Co-location Framework** of this Co-location Framework;

“Subscriber Loop Tie Cable” or **“Subscriber Tie Cable”** means a tie cable that connects Co-Located Equipment;

“Telecommunications” shall have the meaning ascribed to it in the Act;

“Third Party” means any person or entity other than PTCL or the Operator;

“Tie Cable” means the cable used to connect the Operator's equipment to PTCL's distribution frame or patch panel;

“Transmission Tie-Cable” means a screen cable that carries a 2Mbps service;

“Virtual Interconnection” has the meaning ascribed to it in **Co-location Framework2** of PTCL's RIO document.