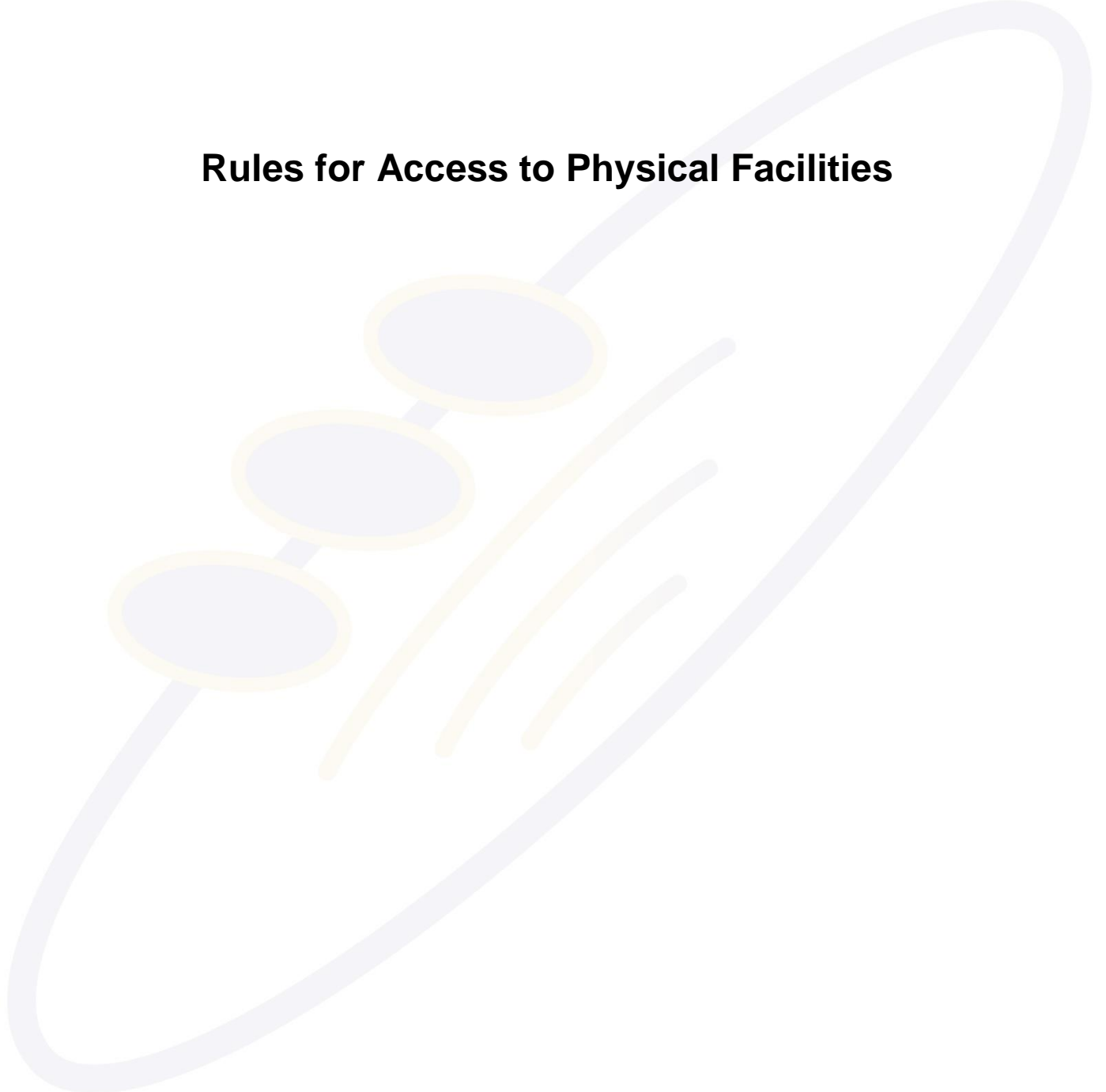




Rules for Access to Physical Facilities



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Rules for Access to Physical Facilities

1 Purpose and Scope of Rules

The Communications and Information Technology Commission (CITC) Statutes set out the rules as well as the rights and obligations of service providers for access to the public networks. These Rules shall govern access by a service provider to physical facilities of other Service Providers to facilitate provision of telecommunications services. Physical facilities include telecommunications infrastructure and passive network elements.

1.1 The Purpose of the Rules

The objectives of these Rules are to:

- Establish rules governing access to physical facilities, including collocation and sharing of physical facilities, with a view to increasing economic and technical efficiency, reducing the burden of investment and promoting the provision of high quality services;
- Foster investment in and deployment of next generation networks;
- Reduce public disruption during the construction of outside plant facilities;
- Assist in ensuring that all Service Providers are treated fairly and in a non-discriminatory manner with respect to the provision of access services;
- Provide a framework for access to physical facilities and networks in a technologically neutral manner;
- Encourage good practice with respect to access services between Service Providers;
- Establish a process for dealing with access disputes.

1.2 The Scope of the Rules

- a) In general, these Rules govern access to physical facilities including passive network components for all Service Providers. However, certain specific requirements under these Rules apply only to Service Providers which have been designated as dominant in a relevant market.
- b) These Rules are intended to provide the basis for a reasonable and mutually negotiated access agreement between Service Providers.
- c) These Rules also address the development and publication of a Reference Access Offer (RAO) by Dominant Service Providers. This Reference Access Offer shall be a

publicly available document published by a Dominant Service Provider, which forms the basis for the provision of access services by the Dominant Service Provider and shall define a standard set of commercial, technical and operational conditions under which access services are offered.

- d) A Reference Access Offer is intended to provide the basis for negotiation of an access agreement for the provision of access services.
- e) These Rules address the establishment of a multilateral working group to coordinate the technical, operational and commercial standards and procedures of joint construction and sharing of infrastructure required for the deployment of next generation networks.

1.3 Definitions

The Definitions in the Telecommunications Act and its Bylaws shall apply.

Passive network components include all the non-electric physical elements in a telecommunications network, such as buildings, sites, ducts, towers and masts, cables among others. In certain cases, access to passive network components may require ancillary services such as air conditioning and power supply.

2 General Principles of Access and Related Obligations

The provisions contained in these Rules shall apply to all relevant technologies, consistent with CITC's approach of technology neutrality.

2.1 Principles and Obligations Applicable to All Service Providers

- (1) Access arrangements should encourage efficient and sustainable competition and shall be transparent, fair and non-discriminatory.
- (2) Service Providers requiring access must submit a written request. The request must specify the locations and required time frames for the installations. Such specification may be supported by street names, drawings, etc.
- (3) All Service Providers, on receiving a written request, must enter into good faith negotiations to complete agreements to provide access to such facilities as are reasonably requested.
- (4) Requested Service Providers shall provide a full and detailed description of the available and requested physical facilities including passive network components, as well as conditions such as size, cooling and power, within 30 days of receipt of the written request.
- (5) If access is not technically or commercially feasible, the requested Service Provider must prepare justifications and submit them to the requesting party within 14 days from the date of a written request unless a different response time is agreed by both parties.
- (6) A Service Provider shall not be required to enter into an agreement where to do so would:
 - a. Cause or be likely to cause material danger or injury to any person or to any property;
 - b. Cause material damage or otherwise materially interfere with the operation of its telecommunications network, telecommunications facilities, or the provision of its telecommunications services;
 - c. Not be technically or economically feasible.
- (7) Access disputes shall be resolved quickly and fairly. Disputes between the parties may be referred to CITC for resolution in accordance with its statutes.
- (8) Access interfaces and standards shall be based on recognized national and international standards.
- (9) Service Providers must submit a copy of all access agreements to the Commission. In case the Commission decides that an access agreement is not compliant with its Statutes, the Commission will notify the concerned Service Providers. The concerned Service Providers must amend their noncompliant agreement within 30 days after receiving such notification.

- (10) When undertaking work related to access, Service Providers must protect the safety of the public, of the workmen and of property. They must adhere to relevant security obligations, observing all relevant laws and industry standards as well as rules, guidelines and standards issued by CITC and/or other governmental authorities.
- (11) Service Providers providing access services may require the following from the other Service Providers to ensure that security measures are followed when work is performed:
 - a. Performance of the work at the site only by qualified personnel;
 - b. Entrance controls and conduct of the work under the guidance of the Service Provider granting access;
 - c. Avoiding any changes resulting from the work which compromise the security measures originally implemented by the owner of the facility;
 - d. Covering any additional costs which may arise to re-establish security measures after completion of the construction work; and
 - e. Reasonably limiting physical access to specific facilities, at specific times and to specific persons.
- (12) Service Providers shall ensure that the design, planning and installation of their facilities is in accordance with best practices and complies with industry codes and/or standards set by governmental and/or other concerned authorities.
- (13) Regardless of the extent of access, each Service Provider must ensure that at any point in time the independent operation of its network is guaranteed.
- (14) Service Providers shall keep accurate records of where all its installed physical facilities are located. The records shall be in the form of route plans based on survey map backgrounds on an appropriate scale for the density of development in the area concerned
- (15) Where a governmental authority, or other interested person who has reasonable grounds to inspect any records of physical facilities kept by any Service Provider pursuant to clause 14) above, makes a request to inspect them, Service Providers shall make them available for that purpose as soon as practicable and, in any case, within 7 days of the request being made. In this context, reasonable grounds can include, for example, matters of public safety, or protection of property.

2.2 Principles and Obligations Applicable to Dominant Service Providers (DSPs) and to Essential Facilities of all Service Providers

- a) In the case where CITC designates a Service Provider as dominant in a relevant market for the provision of certain access services, the following principles and obligations shall apply:

- 1) The terms of access shall not discriminate between a Dominant Service Provider's own operations and those of other Service Providers. The efficient current and planned use of its own facilities should not unreasonably deny access to other Service Providers.
 - 2) Charges for access services shall be transparent, reasonable and cost-based.
 - 3) Standard terms and procedures for access services shall be published in a Reference Access Offer when directed by the Commission.
 - 4) Information received from a Service Provider seeking access shall be used by Dominant Service Providers only for the purposes for which it was supplied and not disclosed to other departments, affiliates or persons to whom the information could provide a competitive advantage.
- b) The same principles and obligations for Dominant Service Providers as laid down in these Rules may apply to Service Providers having control over essential facilities.
- c) Where a Dominant Service Provider participates in the joint implementation of shared infrastructure, only the Principles and Obligations Applicable to All Service Providers pursuant to para. 2.1 shall apply to that Dominant Service Provider.

3 Reference Access Offer (RAO) and Related Agreements

3.1 Regulatory Requirements

- a) The Reference Access Offer (RAO) shall include and provide details of a set of standard terms and conditions for access by other Service Providers. A RAO is used by a Dominant Service Provider to complete individual access agreements with other service providers.
- b) A Dominant Service Provider shall prepare a RAO within 90 days of being so directed by the Commission and shall submit it to the Commission for approval. A Dominant Service Provider is required to publish its RAO on its website within 15 days after approval by the Commission.
- c) A RAO shall include a full list of access services offered, as well as the associated terms and conditions, including the prices and their structure, for each service and component of such service.
- d) A RAO shall include detailed terms and conditions related to access to the physical facilities, the technical standards as well as the standards for safety and security applied by the Dominant Service Provider.
- e) A Dominant Service Provider shall periodically update its RAO to take account of changes to the Rules; the access services offered; the associated facilities, processes and systems; or any other relevant items that may directly impact the terms and conditions of a RAO.
- f) A Dominant Service Provider shall include in its RAO an amendment procedure that describes how changes will be made to its terms and conditions. The amendment procedure shall:
 - 1. Specify how other Service Providers will be informed about proposed changes and the timeframe for such changes; and
 - 2. Provide for submission and approval by the Commission of the details of the proposed amendments.
- g) The Commission may, at any time, require changes to a RAO.

3.2 The Content of a Reference Access Offer

A Reference Access Offer shall contain the following:

- Framework Agreement;
- Description of the access services;
- Technical specifications required to ensure successful access;
- Operational procedures which include service provisioning, planning, fault management and maintenance processes;
- Commercial aspects including charges, payments, billing procedures and terms and conditions;
- Service Level Agreements (SLAs) which include provisioning intervals for access services, quality measures and penalties in case of non-compliance;
- Provisions for providing information on sizes of facilities and the amount of space available for purposes of the assignment, as well as technical information on ancillary elements and facilities.

An illustrative outline of a RAO is provided in Annex A.

4 Access Services

Access services refer to the services and facilities outlined in Annex B. All types of access services shall apply in a technologically neutral manner to fixed and mobile telecommunications networks and all kinds of network infrastructure. Annex B describes the various types of access services.

5 Pricing of Access Services

For Dominant Service Providers, the following conditions shall apply:

- a) Charges for access services provided by Dominant Service Providers shall be cost-based. Cost studies to determine access charges shall allocate costs based on causality and shall allow for the allocation and recovery of joint and common costs, consistent with international best practice.
- b) In order to implement cost based pricing, the Commission may decide to adopt a long run incremental cost (LRIC) approach for access pricing. Consideration may be given by the Commission to other approaches such as benchmarking of the access charges in other countries, or applying a retail minus approach where wholesale access prices are set on the basis of the retail prices of the corresponding user services and applying a discount.
- c) The access charges must be transparent and non-discriminatory. The same rates shall apply for the same access services provided under similar conditions to all Service Providers.
- d) A Dominant Service Provider shall impute to itself the same charges for access services which are used to provide its own services or the services of its other business units or affiliates.

Charges for access services provided by non-dominant Service Providers shall be based on commercial agreements. Commercial agreements must adhere to commercially reasonable and technically feasible conditions.

6 Obligations for Safeguarding Availability of Access in New Infrastructure

To deploy networks, Service Providers require access to property (“rights of way”) as laid down in the Bylaw. Such use of rights of way is subject to the consent of public authorities, and to any relevant rules and regulations imposed by the public authorities in order to minimize interference with the use of public property.

6.1 General Principles for Safeguarding Availability of Access

- a) When planning and building new infrastructure, all Service Providers shall ensure that such new infrastructure enables and supports access by other Service Providers.
- b) No Service Provider shall install cables, equipment, or other facilities that do not correspond to the current or foreseeable needs for serving its customers and which, as a result of the undue excessive space occupation, prevent or limit access to the facilities by other Service Providers.
- c) Any Service Provider deploying telecommunications facilities shall maintain detailed and accurate records of such facilities and of available spare capacity to support access by other Service Providers.

6.2 Safeguarding the Efficient Use of Ducts

- a) In the case of outside plant networks, cables shall be installed in ducts unless it is not economically or technically feasible to do so.
- b) Any Service Provider installing its own new infrastructure must reserve at least 50% of its total new duct installations (rounded up) for use by other Service Providers through access agreements. Example: In the case where the installing Service Provider installs 6 ducts, 3 ducts would be available for use by the installing service provider and 50% of 6 ducts = 3 ducts would be reserved for use by other Service Providers.

The first Service Provider requesting reserved duct capacity by signing an access agreement may not use more than 50% of the residual reserved capacity. Subducts may be used to partition ducts. All subsequent Service Providers may use any or all of the residual reserved capacity.

In case a Service Provider rolls out a duct structure parallel to an existing duct structure having spare capacity, its obligation to reserve capacity could be reduced after consideration by CITC on a case by case basis.

- c) If one or more Service Provider joins the installing Service Provider for joint construction, then each of the participating Service Providers must reserve at least 20% of the capacity of its new ducts.

- d) After installing new infrastructure, any installing Service Provider may not use the duct capacity reserved for other service providers for a period of five years. After five years, the installing Service Provider may use this duct capacity on the same basis as any other Service Provider.
- e) If a Service Provider does not meet its obligation to reserve capacity, with consequent unavailability of ducts or sub-ducts for other Service Providers, CITC may order the Service Provider that did not meet its obligation to:
 - 1) Remove excess facilities if the capacity is needed by other Service Providers;
 - 2) If the removal of such excess is not possible, order the use of the excess facilities by another Service Provider; or
 - 3) Offer dark fiber to requesting Service Providers.

6.3 Operational Aspects

- a) No Service Provider shall install physical facilities that unreasonably prevent or limit access to the facilities by other Service Providers.
- b) Service Providers shall take into consideration the potential need for other Service Providers to be able to access the facilities for future maintenance or augmentation works under an access agreement.
- c) Service Providers planning to use rights of way shall size the installations to reflect the obligations to install reserve capacity and to meet all operational requirements for access by other Service Providers.

7 Joint Technical and Operational Committee and Multilateral Working Group

7.1 Joint Technical and Operational Committee

- a) Service Providers entering into access agreements should establish a joint technical and operational committee. The joint technical and operational committee should facilitate discussion on technical, operational, planning, billing and other service aspects of access services and to reach mutually acceptable agreements in that regard.
- b) The composition of the joint technical and operational committee should be agreed upon by the Service Providers and could be reconstituted as and when required.
- c) The joint technical and operational committee should meet at regular intervals with an agenda agreed in advance and may cover one or more of the following areas:
 - New access locations;
 - Collocation;
 - Service quality;
 - Capacity requirements and rollout plans;
 - Fault analysis;
 - Billing processes;
 - Network and/or service changes;
 - Any other technical and operational issues associated with access services.

7.2 Multilateral Working Group

A multilateral working group for the purpose of facilitating access may be established. All concerned Service Providers shall participate in such a multilateral working group. The working group shall establish terms, standards and procedures. The multilateral working group shall, if initiated, hold periodic meetings at least quarterly. The Commission may participate in such meetings.

The multilateral working group may establish several sub-groups which may consist of regulatory, operational or technical staff as required to address specific issues as they arise. The multilateral working group shall aim at establishing industry solutions, standards and procedures, including on issues such as:

- Technical standards and interfaces;
- Joint construction and co-investment;

- Spare capacity;
- Operations and maintenance processes;
- Management of access;
- Introduction of new services.

Consensus and results achieved in the working group shall be compiled in written form. Service Providers are to implement the agreed results and where appropriate to include them in their Reference Access Offers and/or access agreements and submit the revised documents to the Commission in accordance with the Statutes. Results, outcomes and meeting minutes are to be made available to all members, other Service Providers and the Commission.

8 Dispute Resolution

Any disputes between two Service Providers on entering into an agreement, on the failure to reach an agreement, or on the interpretation of an agreement related to the obligations of one of the Service Providers under these Rules, may be referred to CITC by either of the parties according to Chapter 6 of the Bylaw.

A Dominant Service Provider shall include in its RAO the procedure for resolving disputes including notification, meeting and response times, and the time limit for resolution before the dispute is escalated to the next level.

The dispute resolution procedure of a Dominant Service Provider shall include an escalation process through various levels:

Level 1: Resolution at the Technical and Operational Committee level;

Level 2: Referral of dispute to senior management level;

Level 3: Referral to the Commission in conformance to its Statutes.

Annex A – Illustrative Outline for a RAO

The outline for a RAO given below is for illustrative purposes only. As long as the Rules are followed, the structure, format and arrangement of contents may vary.

A.1 Framework Agreement

- Preamble, definitions and interpretation
- Commencement and duration
- Confidentiality and non-disclosure
- Legal rights, protections and extent of liabilities
- Review, renewal rights and obligations
- Terms associated with breach, suspension and termination of the agreement
- Provisions for systems protection
- Provisions for protecting the safety of the public, the workers, the site and the facilities
- Disputes and arbitration
- Force majeure, waiver and assignment
- Authorized representatives and notices
- Governing law and jurisdiction

A.2 Access Service Definition

- Service definition and description
- Service configuration
- Service provisioning
- Technical characteristics
- Operational conditions

A.3 Technical Aspects

- Facilities access

A.4 Service Level Agreement

- Quality and service level objectives
- Penalties for non-compliance with service level objectives

A.5 Operational Processes

- Provisioning processes
 - Facilities planning
 - Forecasts
 - Collocation
 - Ordering procedures
 - Implementation
- Operations and maintenance processes
 - Fault management
 - Safety standards
- Billing processes
 - Payment process

A.6 Management of Access

- Services management
- Joint technical and operational committee
- Provision of information between Service Providers
- Facilities information
- Planned facilities changes
- Access facilities database
- Dispute resolution

A.7 Access Pricing

- Rates
- Terms and conditions

Annex B – Access Services

All Service Providers must enter into good faith negotiations to complete agreements to provide access to such facilities as are reasonably requested. In case a Service Provider is designated as dominant in a relevant market for certain access services, the Dominant Service Provider must offer such services to other Service Providers and must conform with the conditions set out in the CITC Statutes including the terms and rates approved by CITC.

B.1 Overview of Access Services

This Annex contains descriptions of the following access services

- Collocation
- Buildings and sites
- Ducts
- Vaults
- Towers and masts
- Cable landing points
- Unbundled local loop (ULL)
- Sub-loop unbundling (SLU)
- Dark fiber

B.2 Access Services Descriptions

The above list is not intended to be comprehensive. Further access services may be added (or existing access services deleted) by the Commission at any time as deemed necessary. Technological developments in particular may require such amendments by the Commission.

In the following descriptions, Service Provider A is requesting an access service and Service Provider B is offering the access service.

B.2.1 Collocation

Collocation is a service where a Service Provider B makes available space, infrastructure or telecommunications facilities to Service Provider A. Service Provider A typically has 24-hour by 7-day access to the collocation space or room to install, operate and maintain its own telecommunications transmission systems. Sites at which collocation for interconnection

purposes is already established may also be used to accommodate transmission equipment required for access services.

B.2.2 Buildings and Sites

Collocation at buildings and sites can take the following forms:

1. Dedicated collocation: where Service Provider B provides a custom-built, dedicated, segregated and secured space for the installation of Service Provider A's telecommunications equipment.
2. Adjacent collocation: where Service Provider B provides space in an enclosed but separate structure within or near the site boundary of its existing structure.
3. Co-mingling: where Service Provider B provides floor space or space within a rack. Equipment belonging to the different Service Providers will be inter-mixed directly with each other on the floor and/or rack. Space may be filled sequentially by the different Service Providers.
4. Distant collocation: where Service Provider B provides space in an enclosed structure at some distance, but not adjacent, to its existing structure. The two locations are interconnected by external transmission facilities.
5. Virtual collocation: where Service Provider B gives Service Provider A the ability to connect to Service Provider B's services without physical access by its personnel to a collocation space. Service Provider A provides its own transmission equipment or leases it from Service Provider B. Service Provider B then handles the installation, maintenance, operation and repair of the equipment at Service Provider A's direction on a non-discriminatory basis. Service Provider A does not have access to the virtual collocation space or the equipment but can electronically monitor and control its communications channels terminating in such equipment.

Dominant Service Providers must offer dedicated collocation services as first priority. In case dedicated collocation is not possible due to proven space restrictions, adjacent collocation services shall be offered by Dominant Service Providers as default. Where such collocation services are not economically feasible a Dominant Service Provider must, as an alternative, offer co-mingling and/or distant and/or virtual collocation.

Service Providers shall indicate the terms and conditions for provision of collocation services, including site access procedures and access to on site facilities such as air conditioning, lighting, and power.

B.2.3 Ducts

"Duct" means an infrastructure (such as conduits or pipes) that encloses underground telecommunications cables to protect them and to enable pulling of additional cables into

(empty) ducts without further digging. Ducts can be divided into sub-ducts. Access to ducts could encompass access to other associated facilities, such as manholes, handholes, buildings, power, air conditioning, etc.

The obligation for all Service Providers to provide access to ducts shall in general be applicable to all ducts. Where an agreement to provide access to ducts was previously entered into, or where an obligation to provide access to such ducts previously exists, the obligation to provide access to such ducts shall continue to apply.

Access to ducts installed before the issuance of these Rules is subject to technical feasibility and sufficient availability of capacity for the own use by the Service Provider who is requested to grant access. Any refusal to grant access to duct infrastructure must be justified by reasonable own use demand and existing and documented planning at the time of request.

B.2.4 Vaults

Access to vaults is a service that allows access by one Service Provider to space at the cable entrance area of a building of another Service Provider for the purpose of deploying telecommunications cables and related structures. Such service could encompass access to other associated facilities such as power, air conditioning, etc.

B.2.5 Towers and Masts

Access to towers and masts is a service that allows the use of towers, masts and similar infrastructures of one Service Provider for purposes of installing telecommunications equipment of another Service Provider, such as cables and antennas. Such service could encompass access to other associated facilities such as buildings, sites, power, air conditioning, etc.

B.2.6 Cable Landing Points

Access to international Cable Landing Points means access to the location where an international submarine cable is connected to the public telecommunications network. Such service encompasses access by one Service Provider to the cable landing station of another Service Provider. This service could encompass access to other associated facilities such as collocation, power, air conditioning, etc. as well as related services such as tie cabling and cross connectors.

B.2.7 Unbundled Local Loop (ULL)

Unbundled local loop is a service where a fixed or data Service Provider A (the requesting Service Provider) leases copper pairs from another Service Provider B (which may be

designated as a Dominant Service Provider). Service Provider A takes full control of the copper pairs from the main distribution frame (MDF) to the subscriber and can provide both voice and data services over all frequencies supported by the copper pairs.

The Regulatory Framework for Unbundling of the Local Loop (ULL) remains unaffected by these Rules.

B.2.8 Sub-Loop Unbundling (SLU)

Sub-loop unbundling is the partial unbundling of the local loop by fixed or data Service Provider A at a physical point between the MDF and the termination point at the subscriber's premises. Service Provider A can connect at various physical access points in the sub-loop (e.g. street cabinet).

B.2.9 Dark Fiber

Access to dark fiber is a service where a Service Provider leases a single fiber or a fiber pair which is not connected to transmission equipment. Dark fiber can be offered in all parts of the national network (backbone, backhaul, metro, feeder, and distribution networks). Such service may require access to other associated facilities and services such as manholes and handholes, buildings, power, air conditioning, etc.