

CARRIER ACCESS TARIFF

Item

110 CO-LOCATION ARRANGEMENTS FOR INTERCONNECTING CANADIAN CARRIERS

A. GENERAL

Co-location is an arrangement which provides for access to and use of certain central office building (central office) space, associated power and environmental conditioning to locate the Interconnecting Carrier's (IC's) and Digital Subscriber Line Service Provider's (DSLSP's) transmission equipment and fibre facilities from a point outside the Company's central office to an identified Point of Termination/Demarcation within the Company's central office for the purpose of interconnecting with Company network facilities or accessing Company unbundled-network-components.

Co-location arrangements will be provided in central office buildings where appropriate space and facilities are available as determined by the Company.

Co-location provides for the following:

1. a licence to use Company conduit/riser space for the placement of the IC's fibre optic cable from a point outside the central office into the central office vault and from the vault to the IC's transmission equipment in the central office;
2. a licence to use central office floor space for the placement of the IC's transmission equipment to interconnect with Company services; and
3. provision of appropriate electrical power and environmental conditioning to operate the IC's transmission equipment.

Co-location Arrangements for Interconnecting Canadian Carriers also provides co-location arrangements for Digital Subscriber Line Service Providers (DSLSPs) at the same rates and charges and under the same terms and conditions as specified for ICs under this Tariff item and the related Central Office License Agreement, as specified in C.1. below. Accordingly, for the purposes of this Tariff item and the related Central Office License Agreement, references to an "IC" or "Interconnecting Carrier" shall be deemed to include a DSLSP.

Central office space is provided on the basis of both physical and virtual co-location as defined in Item 110 B.

Because the Commission has forborne, in Telecom Regulatory Policy CRTC 2009-19, with respect to the regulation of this service as set out in that decision, the Company may also provide the service in this tariff at rates and on terms different from the tariffed rates and terms pursuant to an agreement entered into between the Company and a competitor that has been filed with the Commission for the public record.

B. DEFINITIONS

"Digital Subscriber Line Service Provider (DSLSP)" refers to a non-facilities-based reseller of high speed data services who is duly registered with the CRTC pursuant to Order CRTC 2000-983.

"Interconnecting Carrier (IC)" refers to an Interconnecting Canadian Carrier who is duly registered with the CRTC and who has signed an Interconnection Agreement with the Company.

"Point of Termination/Demarcation" refers to the point of connection where a Company-provided cable interconnects with the Interconnecting Carrier's transmission equipment.

"Transmission Equipment" refers to IC-provided equipment which:

1. is necessary for interconnection with Company network facilities or access to Company unbundled-network-components, with the use of all functions of such equipment, including switching and routing functionality, being permitted under these arrangements;
2. is not ineligible pursuant to the equipment lists provided for in Order CRTC 2001-780; and
3. meets all industry standards as referred to in the Central Office License Agreement.

"IC to IC Cross-Interconnection Link" refers to the arrangement by which a co-located IC is able to connect to the facilities of a second IC co-located in the same central office.

"Transmission Equipment" shall also include IC-provided equipment installed solely for the purpose of connection to an IC to IC Cross-Interconnection Link.

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B. DEFINITIONS (Continued)

"Physical Type 1 Co-location" provides the IC with floor space segregated from that occupied by the Company and secure access to that space for the location of the IC's transmission equipment. Access to this area by the IC is only permitted for personnel or contractors of the IC who have been approved by the Company. M |

"Physical Type 2 Co-location" provides floor space unsegregated from that occupied by the Company and third parties inside the central office for the location of the IC's transmission equipment. Access to this area by the IC is only permitted for personnel or contractors of the IC who have been approved by the Company. |

"Virtual Co-location" provides unsegregated floor space within the central office for location of the IC's transmission equipment. The transmission facilities provided from the entrance manhole to the point of termination/demarcation in the central office and the transmission equipment located in the central office must be provided by the IC and must be leased to the Company for a nominal amount. The installation, maintenance and repair of the IC's transmission equipment and fibre facilities from the nearest manhole, designated by the Company, up to the transmission equipment on which it is to be terminated are the responsibility of the Company. Access to this area by the IC for purposes of periodic inspection of its equipment and facilities is only permitted for personnel or contractors of the IC who have been approved by the Company.

C. TERMS AND CONDITIONS

1. General

Co-location is provided under the terms and conditions defined in this Tariff item, the Central Office Licence Agreement Physical Co-location, for physical co-location, and the Central Office License Agreement Virtual Co-location, for virtual co-location.

Co-location is offered only where appropriate floor space, facilities and necessary resources are available after the current and future needs of the Company are taken into account. These facilities and resources include, for example, adequate entrance ducts, riser space, and power. Requests for Co-location will be accommodated on a first-come, first-served basis, based on the date of a completed application for co-location.

Physical Type 1 Co-location, Physical Type 2 Co-location and Virtual Co-location will be offered where appropriate floor space, facilities and necessary resources are available in the central office in question.

The IC has overall responsibility for monitoring the performance of all facilities and equipment on the IC's side of the Point of Termination/Demarcation. The Company does not assume responsibility for the design, engineering, testing, or performance of the end-to-end services operated or offered by the IC. In order to ensure that the Company's operational guidelines and installation, equipment, transmission, electrical, labour and safety standards or codes and any other conditions specified in the Central Office Licence Agreement are maintained, the Company upon reasonable notice, has the right to inspect the IC's installation of equipment and facilities and to make subsequent and periodic inspections of the IC's equipment and facilities and to ensure compliance when required.

The IC is responsible for providing the fibre facility from its Point of Presence or other location to a point outside the Company central office, designated by the Company. This point is usually at or near the entrance manhole (the last manhole before the central office).

The IC is also responsible for providing the fibre facility from the point outside the central office, designated by the Company, which is usually at or near the entrance manhole, up to the transmission equipment on which it is to be terminated.

The Company reserves the right to install the IC's cable between the entrance manhole and the cable vault and from the vault to the Point of Termination/Demarcation in the central office at the rates specified in Items 110 D.5.(m) and (n).

M - moved from page 171.

See Page 5 for explanation of symbols.

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110 CO-LOCATION ARRANGEMENTS FOR INTERCONNECTING CANADIAN CARRIERS (Continued)

C. TERMS AND CONDITIONS (Continued)

1. General (Continued)

The IC provided equipment that is permitted in the central office is limited to transmission equipment as defined in Item 110 B. This transmission equipment must interconnect with Company network facilities, access Company unbundled-network-components or connect to an IC to IC Cross-Interconnection Link in accordance with transmission rates and other applicable standards associated with those services in that central office.

The co-located IC, after interconnecting its Transmission Equipment with the Company's facilities, is permitted to connect to the Transmission Equipment of another IC co-located in the same Company premises via an IC to IC cross-connection. In co-locating the transmission equipment in the Company premises, the IC shall ensure that the primary purpose of co-location is to interconnect with Company network facilities or access Company unbundled-network-components. The Company reserves the right to require the IC to demonstrate that the capacity dedicated to interconnection with, or access to, the Company's network facilities is greater than that dedicated to IC to IC cross-connection. The Company also reserves the right to require the IC to demonstrate that the transmission rate of any Transmission Equipment connected to an IC to IC Cross-Interconnection Link can be verified to not exceed the nominal rate of the associated IC to IC Cross-Interconnection Link through a physical inspection by Company personnel. The IC shall also provide any assistance that Company personnel reasonably require to verify the transmission rate on any IC to IC Cross-Interconnection Link.

The Company provides the IC to IC cross-interconnection link necessary to interconnect two ICs co-located in the same central office at rates and charges specified in Item 110 D.5.(g).

ICs are required to meet all standards, regulatory requirements, Company operating procedures and requirements, safety and labour codes and security standards as specified by the Company in the Agreement.

The Company is not liable for any act or omission on the part of the IC or its employees, agents or contractors arising from or associated with the furnishing of service by the IC to its customers.

ICs are responsible for providing equipment spares and any training costs required for installation and maintenance of co-located equipment when such installation and maintenance are provided by the Company or its contractor.

When requested, the Company will provide a second cable entrance for the IC's cable into the central office where such second entrance exists and where capacity is available. Items 110 D.5.(b) to (e).

The Company will offer both Physical Type 1 Co-location, Physical Type 2 Co-location and Virtual Co-location arrangements in the same central office where appropriate space and facilities are available as determined by the Company.

D. RATES

1. General

A monthly rate applies for the lease of conduit/riser space used for the placement of the IC's fibre optic cable as specified in Item 110 D.5.(b) and (e).

A service order charge applies and provides for the processing of the service order associated with a request for co-location. The service order charge will be applied to each request for a new co-location arrangement or for any changes or additions to existing co-location arrangements. Refer to Item 110 D.5.(a) for this non-recurring charge.

An application charge per requested location applies and provides for preliminary work needed to determine whether co-location can be provided to meet the IC's request. See Item 110 D.5.(f) for this non-recurring charge.

See Page 5 for explanation of symbols.

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D. RATES (Continued)

1. General (Continued)

A project management fee applies and provides for all associated administration, design and engineering tasks required to accommodate an IC's request for co-location. This fee is based on the costs incurred as specified in Item 110 D.5.(i).

A site preparation fee applies for Physical Type 2 and Virtual Co-location (unsegregated space). This fee includes such items as preconditioning, additional riser and cable racking to accommodate the IC in the central office. The fee is based on the costs incurred as specified in Item 110 D.5.(l) and will be quoted to the IC.

The IC is responsible for any costs incurred by the Company to prepare the central office for the installation of the IC's transmission equipment. Costs may include, but are not limited to, such items as preconditioning of central office space and/or equipment as well as any cabling or wiring requirements. The non-recurring charges, where applicable, will be estimated and quoted in advance and charged based upon the costs incurred to accommodate the IC's equipment. See Item 110 D.5.(j), (k), and (l).

The Company is responsible for the installation and maintenance of the IC to IC cross-interconnection link between two ICs co-located in the same central office.

A monthly rate applies for the IC to IC cross-interconnection link between two ICs in the same central office as specified in the Item 110 D.5.(g).

Work performed by the Company to provide the IC to IC cross-interconnection link shall be performed under tariffs applicable to Co-location installation and maintenance as specified in Item 110 D.5.(g).

The IC will bear all construction/design costs incurred and committed to by the Company from the date of a request to the date of the cancellation of the request should the IC cancel its request for co-location prior to implementation.

The Company provides the electrical power necessary to operate the IC's transmission equipment at the rates and charges specified in Item 110 D.5.(d). In addition, a power delivery charge applies as specified in Item 110 D.5.(h).

Common Cost Rebate Process

N

A construction fee applies for any central office modifications required to enable the Company to provide Physical Type 1 Co-location. This fee covers the costs of building modifications which are necessitated by the provision of Physical Type 1 Co-location to all ICs in a particular central office. The first IC to obtain Physical Type 1 Co-location at a specific central office will be charged all of the costs to modify that specific central office. If more than one IC obtains co-location service at a specific central office at the same time, the costs will be shared equally. If, within a period of 60 months of the Physical Type 1 Co-location by the first IC, additional ICs obtain Physical Type 1 Co-location at the same central office they will be charge a proportionate share of the initial costs and this recovered amount will be reimbursed equally to the IC(s) with Physical Type 1 Co-location already in that central office. The construction fee may include, but is not limited to costs for such items as perimeter walls, additional riser requirements, lighting and environmental conditioning, and securing Company property in the central office.

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The fee will be determined based on the costs incurred as specified in Item 100 D.5.(j).

In addition, a second construction fee applies to install a secured enclosure (such as a cage) when requested by the IC. The fee for this element will also be determined by the Company on a cost incurred basis and will be quoted to he IC as specified in Item 110 D.5.(k).

"Construction fees" transferred from Page 175.
D.2. transferred to Page 175.

See Page 5 for explanation of symbols.

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D. RATES (Continued)

1. General (Continued)

Common Cost Rebate Process (Continued)

In addition to the specific construction costs associated with preparing the central office for installation of the IC's transmission equipment (or "non-recurring costs" within the meaning of Telecom Decision CRTC 2002-5 (Decision 2002-5)), a subsequent IC requesting Type 1 Co-location is responsible for paying a contribution to common costs (within the meaning of Decision 2002-5) that may have been incurred by a previous or primary IC (or "primary co-locator") in the central office in question.

The Company will issue invoices to subsequent ICs for common costs no later than 40 days prior to the planned co-location effective date (or Physical Co-location Arrangement Effective Date, as referred to in the applicable Central Office License Agreement).

The Company will notify the primary co-locator(s) of a subsequent IC's application for Physical Type 1 Co-location within 10 days after the co-location effective date, being the date the subsequent IC takes possession of the Licensed Area in question (as defined in the application Central Office License Agreement).

Payment in full of the common costs is due 30 days from the date of the invoice. Where the Company issues the invoice at least 40 days prior to the planned co-location effective date, access to the Licensed Area can be withheld from the subsequent IC, with a corresponding delay in the co-location effective date, until payment of common costs is received in full by the Company. Late payment charges will not apply where access to the Licensed Area is withheld for non payment.

Where the Company issues the invoice for common costs less than 40 days prior to the planned co-location effective date, access to the Licensed Area may not be withheld for non-payment, but late payment charges will apply on overdue accounts as specified in TCI General Tariff (CRTC 21461), General Terms of Service, Item 111.0, Payment Time Limits and Late Payments. In all cases, the Company will apply partial payments to common costs first before applying to non-recurring costs, and rebates to primary co-locators are not dependent on payment of non-recurring charges.

Rebates to the primary co-locator(s) are to be issued no later than 30 days after the actual co-location effective date, in all circumstances. The Company is subject to late payment charges at the rate specified in TCI General Tariff (CRTC 21461), General Terms of Service, Item 111.0, Payment Time Limits and Late Payments in favour of the primary co-locator(s) where rebates are issued later than 30 days following the actual co-location effective date.

2. Physical Type 1 Co-location

In Physical Type 1 Co-location the installation and maintenance of IC's transmission equipment will be performed by the IC's personnel or contractor, who have been approved by the Company, in accordance with Company operational guidelines.

The ICs requesting Physical Type 1 Co-location will be accommodated on a first-come, first-served basis, based on the date of application for Co-location, in increments of one sq. metre to a maximum of 20 sq. metres per initial request per central office location. An existing IC that has exhausted its initial 20 sq. metre maximum in a central office may acquire additional Type 1 co-location space in the central office, where space is available, in increments of one square metre. The Company reserves the right to determine the shape and specific location of the central office floor space provided. Refer to Item 110 D.5.(c) for rates.

D. "Construction fees" transferred to Page 174.

D.2. transferred from Page 174.

D.3. and 4. transferred to Page 176.

See Page 5 for explanation of symbols.

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D. RATES (Continued)

3. Physical Type 2 Co-location

Physical Type 2 Co-location provides for either of the following:

- (a) installation, maintenance and repair of the IC's transmission equipment will be performed by the Company or its contractors in response to requests by the IC.
- (b) installation, maintenance and repair of the IC's transmission equipment will be performed by the IC's personnel or contractor, who have been approved by the Company and in accordance with Company operational guidelines.

The IC has overall responsibility for the performance of its facilities and equipment, including responsibility for remote surveillance, diagnostic and sectionalization of trouble.

The IC requesting Physical Type 2 Co-location will be accommodated on a first-come, first-served basis, based on the date of application for Co-location. The Company reserves the right to limit the available floor space assigned for Physical Type 2 Co-location to each IC in a respective central office.

A monthly rate applies for each 2.3m high by .6m wide IC-provided equipment bay installed and reserved. Refer to Item 110 D.5.(c) for rates and charges.

4. Virtual Co-location

Under the virtual arrangement the installation, maintenance and repair of the IC's transmission equipment and fibre facilities from the manhole nearest the central office, as determined by the Company, to the point of termination/demarcation in the central office must be performed by the Company or its contractor. Such installation, maintenance and repair will be provided in response to IC requests. Refer to Item 110 D.5.(m) for rates.

Those ICs requesting virtual Co-location will also be accommodated on a first-come, first-served basis, based on the date of a completed application for Co-location.

A monthly rate applies for each 2.3m high by .6m wide IC provided equipment bay installed and reserved. Refer to Item 110 D.5.(c) for rates and charges.

The Company is responsible to install the IC's cable between the nearest manhole and the cable vault and from the vault to the point of termination/demarcation in the central office at the rates specified in Item 110 D.5.(m) and (n).

The Company reserves the right to limit the available floor space assigned to each IC in each central office location where virtual Co-location is offered.

Under a virtual co-location arrangement, the IC has overall responsibility for the performance of its facilities and equipment, including responsibility for remote surveillance diagnostics and sectionalization of trouble.

The IC must meet all terms and conditions of co-location as determined in this Item and the Central Office License Agreement (COLA) between the Company and the IC.

D.3. and 4. transferred from Page 175.
D.5. (a) to (g) revised and transferred to Page 177.

See Page 5 for explanation of symbols.

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110 CO-LOCATION ARRANGEMENTS FOR INTERCONNECTING CANADIAN CARRIERS (Continued)

D. RATES (Continued)

5. The Company's rates and charges are as follows:

	<u>Rate Per Month</u>	<u>Non-Recurring Charge</u>	
(a) Service Order Charge (per order per central office)	---	\$ 104.94	R
(b) Entrance Conduit (per metre of fraction of, each cable)	\$ 0.1158	---	
(c) Floor Space (sq. metre of unsegregated or segregated space)	11.71	---	
(d) Power Consumption (per fuse-amp)			
(i) 48 Volt DC	8.06		
(ii) 120 Volt AC (Unprotected)	2.43		
(iii) 120 Volt AC (Protected with generator back up)	4.14		

See Page 41 for explanation of symbols.

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D. RATES (Continued)

5. The Company's rates and charges are as follows: (Continued)

	<u>Rate Per Month</u>	<u>Non-Recurring Charge</u>	
(e) Riser Space (per metre per cable)	\$0.2896	---	R
(f) Application Charge (per request per central office)	---	\$788.80	I
(g) IC to IC cross-interconnection link (Note 7).....			
a. DS-1 or DS-3	(Note 1)	---	
b. 2.5 Gbps	96.03	115.20	
(h) Power Delivery (Notes 4,5 & 6)	---	(Note 2)	
(i) Project Management Fee (per central office) (Notes 4,5 & 6)	---	(Note 2)	
(j) Construction Fee (bldg. modification) (Notes 4, 5 & 6)	---	(Note 2)	
(k) Construction Fee (enclosure) (Notes 4, 5 & 6)	---	(Note 2)	
(l) Site Preparation Fee (Notes 4,5&6)	---	(Note 2)	
(m) Installation/Maintenance (Notes 4, 5 & 6)	---	(Notes 2 & 3)	
(n) Cable Pulling/Splicing (Notes 4, 5 & 6)	---	(Notes 2 & 3)	

- Notes: 1. For rate and charges, see Tariff CRTC 21462, Item 224.3.5 - CDN Other CO Connecting Link (copper-based).
 2. The charges are based on costs incurred.
 3. Premium rates as specified in the Agreement apply for custom response times.
 4. For the first hour or fraction thereof of work performed during "normal working hours" an hourly labour rate of \$64.40 applies.
 5. For each additional 15 minutes or fraction thereof, a charge of \$16.10 applies.
 6. For work done on a call-out basis entirely outside of normal working hours, a minimum charge of 2 hours of labour time at \$105.80 per hour plus 1 hour of regular time at \$64.40 applies.
 7. The provision of an IC to IC Cross-Interconnection Link requires that each IC pre-order a Central Office Link under tariff CRTC 21462 Item 211.3.1 for DS-1 or DS-3; or a CDN Optical Co-location Link under tariff CRTC 21462 Item 224.3.4 for 2.5 Gbps.