

**INTEGRATED DIGITAL NETWORK SERVICES**

**ITEM**

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 item 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.

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**5830 VERY HIGH-SPEED DIGITAL SUBSCRIBER LINE (VDSL) DATA ACCESS SERVICE****1. GENERAL**

- A. VDSL Data Access service is a broadband access service based on Very High-Speed Digital Subscriber Line 2 (VDSL2) technology. The service enables a High Speed Service Provider (HSSP) to establish a very high-speed data access path between its end-user premises and the Company's serving Wire Centre. The data access path aggregates traffic from multiple Wire Centres into VLAN(s) and forwards all end-user traffic toward the service providers' network. End-user login and password authentication are established via the HSSP's Broadband Remote Access Server (BRAS). The Company does not provide the BRAS as part of its VDSL Data Access service nor does the Company participate in the end-user login or authentication. C  
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- B. VDSL Data Access service is provided either in addition to ADSL Data Access service that is available in Tariff Item 5820, or as a stand-alone service.
- C. VDSL is a transmission technology that provides asymmetric transmission (higher bandwidth in one direction, and lower bandwidth in the opposite direction) of data. VDSL delivers very high-speed downstream transmission to the end-user and a lower-speed upstream transmission to the HSSP. No reverse (lower-speed downstream, very high-speed upstream) VDSL transmission is permitted.
- D. The service is limited to lines terminating on individual line station equipment. VDSL Data Access service does not prevent the simultaneous use of the end-user's telephone line for voice-band applications, permissive data or facsimile.
- E. VDSL Data Access service is provided where service is available to customers within the Winnipeg, Brandon and Portage la Prairie Exchanges. The speed profile options support the speeds currently available to the Company's stand-alone retail DSL service customers within the Exchange. C
- F. At the Company's discretion, Bonded VDSL Access may be used to either extend the coverage to provide the default speed profile or to provide the optional speed profile in service address locations where the service is not available on a single copper pair. Bonding is available only on a limited basis where suitable equipment and facilities exist. Customers will be advised at the time of ordering if bonding is required and the applicable additional charges that will apply. C
- G. The service demarcation for the Company's Wire Centre consists of an Ethernet interface within the Main Central Office in Winnipeg. A HSSP may connect to this interface, via either a Central Office (CO) connecting link arrangement to its own co-located equipment or via suitable Company or third party-provided facilities in order to achieve end-to-end connectivity. C  
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5830 VERY HIGH-SPEED DIGITAL SUBSCRIBER LINE (VDSL) DATA ACCESS SERVICE –  
continued

1. GENERAL - continued

- H. VDSL Data Access service transparently supports Point to Point Protocol over Ethernet (PPPoE), Dynamic Host Configuration Protocol (DHCP), and other standard protocols supported by Ethernet across the Company's network. C
- I. VDSL Data Access service requires the use of IEEE 802.1Q VLANs at the HSSP interface. A minimum of one VLAN is required per service provider for accessing Wire Centres in the Exchanges covered by VDSL2 technology. The Company will determine the maximum number of users per VLAN, and the maximum VLANs per HSSPI physical port. C
- J. The service is not available where end-users subscribe to Bell MTS TV and wish to have DSL-based service from another service provider on the same access loop. C
- K. If an end user wishes to receive Internet service from an HSSP and wishes to retain its Bell MTS TV service and/or the Company's Internet service, and a second loop is available, the HSSP shall pay the appropriate rates as set out in CRTC 24006, Access Services Tariff (AST), Tariff Item 105. If a second loop is not available, the VDSL Data Access will not be provided. C
- L. VDSL Data Access service does not support the routing or transmission of multicast traffic.
- M. VDSL Data Access service does not support the sharing of modems between the Company and the HSSP using VDSL Data Access service. C
- N. VDSL Data Access service does not support or include provisioning of end-user accesses on the Company's Fibre to the Home (FTTH) facilities. C

1. DEFINITIONS

For the purposes of this Tariff Item:

- A. "End-user" is defined as being the HSSP's customer, that is, the ultimate user of the digital very high-speed service application.
- B. "Network Access Service (NAS)" is defined as:
  - A non-hunting residential or business touch tone individual line
- C. "High Speed Service Provider (HSSP)" is defined as a Competitive Local Exchange Carrier (CLEC), Digital Subscriber Line Service Provider (DSLSP), or a Reseller that wishes to offer VDSL Data Access service to its end-users.
- D. "Competitor Identity Name Change" is defined as a situation where one customer is requesting that its company name be changed to a different legal company name.
- E. "Standard VDSL Access" is defined as VDSL Access provided over a single Type A copper loop. Standard VDSL Access is used to provision VDSL Data Access service to a service location when it is qualified for the requested speed profile.

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5830 VERY HIGH-SPEED DIGITAL SUBSCRIBER LINE (VDSL) DATA ACCESS SERVICE –  
continued

2. DEFINITIONS - continued

- F. "Bonded VDSL Access" is defined as the additional VDSL Access over a Type A copper loop and the aggregation required to provision VDSL Data Access service for the requested speed profile at a service location. Bonded VDSL Access is provided only in conjunction with a Standard VDSL Access from the same DSLAM to the same end-user location and modem.
- G. "Incumbents" means Bragg Communications Incorporated, carrying on business as Eastlink, Cogeco Communications inc., Rogers Communications Canada Inc., Saskatchewan Telecommunications, Telus Communications Inc., and Vidéotron Ltd.

3. SERVICE COMPONENTS

- A. VDSL Data Access service: The service consists of the following components:
- 1) VDSL Access: VDSL Access provides VDSL Data Access service over end-user loops that qualify for VDSL Data Access service. VDSL Access is only available in conjunction with an existing V-AHSSPI and an existing Company-provided network access service, an existing Type A local loop in accordance with the rates, terms and conditions contained in AST Tariff Item 105 or a dry loop in accordance with the rates, terms and conditions contained in SST Tariff Item 5820. VDSL Access (Standard and Bonded) is provided at a default speed profile of up to 30 Mbps or at optional speed profiles of up to 50 Mbps, up to 75 Mbps or up to 100 Mbps (bonded only).
  - 2) Standard VDSL Access Service Charge: This service charge provides for the business office work and technical work required to install or move a VDSL Access line, including the facility checks required to determine the capabilities of the VDSL Access line.
  - 3) Access Profile Change Fee: This fee is applicable to each end-user profile change that is made to each Standard or Bonded VDSL Access subsequent to applying the initial profile.
  - 4) Very High-Speed Aggregated High Speed Service Provider Interface (V-AHSSPI): This interface port provides the single point of interconnection to the HSSP and supports either up to 1,000 Mbps of network capacity, or is available as a 10GE or 100GE interface port. The 10GE or 100GE ports are available in the Winnipeg - Fort Rouge and Winnipeg - Main Central Offices.
  - 5) V-AHSSPI Aggregated High-Speed Interface Port and Network Capacity Path Initial Service Charge: This service charge provides for the business office and technical work required to initially install and program the facilities to provision the V-AHSSPI. This charge includes the activation of the Exchanges of Winnipeg, Brandon and Portage la Prairie where VDSL Data Access service is available.
  - 6) Network Capacity: This provides network bandwidth to connect from the HSSP to the end-users, and from the end-users to the HSSP. Network capacity is provided in increments of 100 Mbps and provides for the aggregation of end-user traffic associated with a single HSSP from every Wire Centre back to a single point of interconnection located at the Main Central Office in Winnipeg.

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continued

3. SERVICE COMPONENTS - continued

A. VDSL Data Access service: The service consists of the following components: -  
continued

- 7) Network Capacity Change Fee: This administration fee provides for the business office and technical work required to add or change network capacity to an existing V-AHSSPI after the initial set-up.
- 8) Competitor Identity Name Change Fee: This fee provides for the business office work that is required to make a change to a customer's legal name.
- 9) Bonded VDSL Access Charge: This charge is applicable when the HSSP has optionally requested service that requires extending the coverage to provide the default speed profile or to provide the optional speed profile in service locations where the service is not available on a single copper pair. This charge is a supplemental charge to the Standard VDSL Access charge in service locations where the service cannot be provisioned on a single copper pair.
- 10) Bonded VDSL Access Service Charge: This service charge provides for the business office work and the technical work required to install and provision, or move Bonded VDSL Access lines, including facilities checks required to determine the capabilities of the VDSL Access line when the HSSP has optionally requested service at an eligible service address location beyond the operational range of a single copper pair or when the requested optional speed profile is only available by bonding two copper pairs. This service charge is a supplemental charge to the Standard VDSL Access service charge.

B. Associated Interconnection Services: Connectivity between the V-AHSSPI demarcation point located at the Company's Wire Centre and the HSSP's Point of Presence (POP) can be established via the following the Company's services or through a third-party service provider:

- 1) Where a HSSP's equipment is co-located within the Main Central Office in Winnipeg, the HSSP would connect to the V-AHSSPI using the Ethernet Central Office Connecting Link service – CRTC 24006, Item 122. C
- 2) Where a HSSP's POP is located within another Wire Centre in Winnipeg, the HSSP would connect using Ethernet Access service – CRTC 24002, Item 6900. C
- 3) Where a HSSP's POP is located in a Wire Centre other than a Wire Centre in Winnipeg, the HSSP would connect using Ethernet Transport service – CRTC 24006, Item 123, and Ethernet Access service – CRTC 24002, Item 6900 or Ethernet Central Office Connecting Link service – CRTC 24006, Item 122, in the case where the HSSP's POP is co-located. C  
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5830 VERY HIGH-SPEED DIGITAL SUBSCRIBER LINE (VDSL) DATA ACCESS SERVICE –  
continued

4. TERMS AND CONDITIONS

- A. VDSL Data Access service is available only to HSSP's in association with an end-user's Company-provided residential or business individual network access service as defined in this Tariff Item, or a Type A unbundled local loop as identified in AST Item 105 or as a dry loop. Such services, however, are not included as part of VDSL Data Access service itself. It is the responsibility of the HSSP to ensure that they or their end-user obtains a suitable residential or business network access service or the Company's unbundled local loop where available. C
- B. The VDSL Data Access service is available from the end-user's Company serving Wire Centre as stated in Item 1.E and shall be provided subject to the availability of suitable equipment and facilities as determined by the Company. The Company does not make any representation that the services in this Tariff Item, or in any related Tariff Items, will be available in the quantities, bandwidth and locations requested by the HSSP, but will make every reasonable effort to make such services available upon request. . C  
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- C. Where VDSL Data Access service is used in association with an end-user's Company-provided residential or business individual network access service as defined in this Tariff Item, the HSSP is responsible for obtaining authorization from the end-user in accordance with the provisions for providing express consent contained in General Tariff Item 200.11.1. Such authorization shall be furnished to the Company in the event the end-user disputes, in writing to the Company, that the end-user had given authorization to the HSSP. C
- D. The Company does not guarantee the level of digital data transmission service performance provided by the HSSP to the end-user over the network access service. C
- E. The Company does not guarantee uninterrupted working of its service and/or equipment and shall not be liable to the HSSP or any other entity for any failure or delay in performance of any service provided in this Tariff Item, or any other Company Tariff Item or agreement. In the event of network outages or other service problems, nothing in this Tariff Item shall extend the liability of the Company as specified in the Company's Terms of Service in the General Tariff. C
- F. Where the end-user's Company or CLEC-provided network access service currently meets the Company's technical requirements for VDSL Data Access service, in particular metallic continuity, the Company will provide the HSSP with a reasonable advance notification of any facility change that would eliminate metallic continuity on that end-user's loop. C

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5830 VERY HIGH-SPEED DIGITAL SUBSCRIBER LINE (VDSL) DATA ACCESS SERVICE -  
continued

4. TERMS AND CONDITIONS - continued

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| G. | The VDSL equipment itself is subject to operational constraints related to the characteristics of the underlying loop facility. HSSPs may use VDSL Data Access service to establish high-speed connections only to those end-user premises located within the operational range of the VDSL transmission equipment associated with particular MTS Inc. serving wire centres. Connections cannot be established to primary exchange service or Type A loops having excessive bridge taps, equipped with load coils or an auxiliary main line, or which are not capable of supporting metallic continuity. | M1<br><br>C<br> |
| H. | In the furnishing of services in this Tariff Item, MTS Inc. is not responsible to the HSSP or HSSP's end-user for end-to-end service.  | M1              |
| I. | It is the responsibility of the HSSP and/or end-user to provide the customer premises equipment (CPE) device, filters, wiring, and/or splitters, which are beyond MTS Inc.'s Customer Network Interface or demarcation point. The HSSP is responsible to ensure the end-user's CPE equipment and devices conform to Industry Canada terminal attachment standards, and meet all CSA and other applicable government safety standards. CPE must support the ITU G.993.2, G.998.2 and other applicable VDSL2 standards to be compatible with the MTS Inc. network.   | M1<br><br>C<br> |
| J. | If an end-user cancels its network access service or if it is otherwise removed from service, billing for VDSL Data Access service will continue until MTS Inc. has been informed by the HSSP that VDSL Data Access service is to be terminated.   | M1              |
| K. | If an end-user moves their network access service to another location, it is the responsibility of the HSSP to inform MTS Inc. that the VDSL Access is to be either re-established at the new location or disconnected.  | M1              |
| L. | When it is necessary for MTS Inc. to install additional equipment or to incur any unusual expense in order to meet the requirements of a HSSP, an additional charge may be assessed to the HSSP based on the equipment installed or the unusual expense incurred.  | M1              |
| M. | If a HSSP cancels an application for service after MTS Inc. has incurred costs associated with the provision of the service, the HSSP shall pay all costs incurred by MTS Inc.   | M1              |
| N. | The HSSP shall not implement any changes to its operations, services or network which would, in the reasonable assessment of MTS Inc., materially affect MTS Inc.'s operations, services or network without the prior consent of MTS Inc., which shall not be unreasonably withheld.   | M1              |

M2

M1 – Moved from page 93      M2 – Moved to page 95

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**TN 747**

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5830 VERY HIGH-SPEED DIGITAL SUBSCRIBER LINE (VDSL) DATA ACCESS SERVICE -  
continued

4. TERMS AND CONDITIONS – continued

- O. For VDSL Data Access service, the Company provides the following speed profile configurations: C  
     Default speed profile: 30 Mbps downstream by 2 Mbps upstream;  
     Optional speed profiles, where available: C  
         50 Mbps downstream by 5 Mbps upstream  
         75 Mbps downstream by 10 Mbps upstream N  
         100 Mbps downstream by 10 Mbps upstream (bonded only) N
- All other speed configurations are the responsibility of the HSSP through rate shaping on the HSSP's own network devices.
- P. The Company may provide VDSL Data Access service on either speed profile using bonding of two copper pairs if the requested eligible service address location is beyond the normal operational range of providing VDSL Data Access service on a single copper pair. C
- Q. The Company provides VDSL Data Access speed parity with the speed profiles of its stand-alone VDSL2 retail offerings provisioned over copper. The Company will make changes to the speed profiles stated above in Item 4.O from time to time to align with its current standalone retail speed profiles. When such changes to speed profiles occur, the existing speed profiles will no longer be available to new end-users. Existing end-users will not be automatically migrated to new speed profiles although the HSSP may optionally request profile changes to existing end-users based on the Company's current offerings. When such speed profile changes are requested, the HSSP shall pay the applicable Access Profile Change Fee for each end-user profile change that is requested. C
- R. A HSSP subscribing to the VDSL Data Access service will be required to obtain the following elements to make the service operational:
- 1) Broadband Remote Access Server (BRAS) or Router at HSSP POP;
  - 2) IP Address Blocks;
  - 3) VDSL2 G.993.2 high-speed modem compatible with the Company's DSLAM equipment. When the VDSL Data Access service is required to be provisioned over two copper pairs using the Bonded VDSL Access option, the modem must be compatible with the Company's DSLAM for G.988.2 EFM bonding; C
  - 4) Splitter for each end-user VDSL Access; and
  - 5) Point-to-point Ethernet connectivity between the Company's network and the HSSP's POP. C







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5830 VERY HIGH-SPEED DIGITAL SUBSCRIBER LINE (VDSL) DATA ACCESS SERVICE -  
continued5. PROTECTION OF MTS ALLSTREAM NETWORK

- A. It is the responsibility of the HSSP to ensure that the characteristics and methods of any circuit, facilities, or equipment of the HSSP and its end-users, when connected to MTS Inc., shall not:
- 1) Interfere with or impair service over any of MTS Inc.'s facilities or its connecting carriers;
  - 2) Cause damage to MTS Inc. plant;
  - 3) Impair the privacy of any communication carried on MTS Inc.'s facilities;
  - 4) Create hazards to MTS Inc.'s employees or the public; or
  - 5) Directly or indirectly create radiated radio frequency interference in violation of Industry Canada regulations
- B. If the HSSP's operations are not in accordance with the preceding, MTS Inc. will make all reasonable efforts to notify the HSSP that a temporary disconnection of the use of circuits may be required. In situations where, despite reasonable efforts, MTS Inc. is unable to inform the HSSP, nothing in this tariff item will preclude MTS Inc. from taking steps to temporarily disconnect circuits, facilities or equipment if such action is reasonable under the circumstances. In cases of such disconnection the HSSP will be promptly notified and afforded the opportunity to correct the issues that gave rise to the temporary disconnection.
- C. During any period of temporary disconnection of service caused by a trouble or condition arising in the HSSP's operations, facilities, equipment, or network, no refund for the interruption of service shall be made.

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5830 VERY HIGH-SPEED DIGITAL SUBSCRIBER LINE (VDSL) DATA ACCESS SERVICE -  
continued

6. RATES AND CHARGES

The following rates and charges apply to the various components for VDSL Data Access service when the HSSP does not provide its own VDSL transmission equipment in the Company's Wire Centre:

<u>Service Component</u>	<u>Monthly Rate</u>	<u>Service Charge</u>	
Standard VDSL Access:			
"Up to 30 Mbps" Profile, each network access (default) Note 5	\$21.43	\$178.60 (1)	
"Up to 50 Mbps" Profile, each requested network access (optional, where available)	\$24.83 (8)	\$178.60 (1)	
"Up to 75 Mbps" Profile, each requested network access (optional, where available)	\$24.83 (9)	\$178.60 (1)	
"Up to 100 Mbps" Profile, each requested network access (optional, bonded only, where available)	\$24.83 (10)	\$178.60 (1)	
Bonded VDSL Access:	\$19.63 (6)	\$185.24 (7)	
Network Capacity, each 100 Mbps:	\$64.24	--- (3)	*
Access Profile Change Fee, each end-user:	---	\$34.27 (2)	
Very high-speed Aggregated High-Speed Service Provider Interface (V-AHSSPI)			
Up to 1Gbps:	\$105.72	\$4,097.57 (3)	
10 GE or 100GE (11)(12):	\$327.88	\$1,159.00 (3)	N
Fee to add or change network capacity to an Existing V-AHSSPI, subsequent:			
Per Order:	---	\$205.11 (4)	
Per Interface:	---	\$185.55 (4)	
Competitor Identity Name Change Fee:	---	\$26.51	

Diagnostic charges, as specified below, apply for each test performed by the Company at the request of the HSSP for repair of a trouble when no trouble is found in the Company VDSL Data Access service or its components.

- For diagnostic maintenance charges, refer to Note (2) of AST Tariff Item 105.4.C.
- For premises visit charge, where applicable, refer to General Tariff Item 510.2.A.

Notes:

- (1) The service charge is applicable on new network access service installations, moves, and transfers.
- (2) The service charge is applicable to each profile change required for each VDSL access end-user customer that is made subsequent to applying the initial profile.
- (3) The V-AHSSPI Aggregated High-Speed Interface Port and Network Capacity Path Initial Service Charge: This service charge is for the business office and technical work required to initially install and to provision both the V-AHSSPI interface port and the capacity path on the V-AHSSPI, and is a combined service charge.

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5830 VERY HIGH-SPEED DIGITAL SUBSCRIBER LINE (VDSL) DATA ACCESS SERVICE -  
continued6. RATES AND CHARGES - continued

- (4) The service charge is applicable to each network capacity change that is made subsequent to the initial provisioning of the V-AHSSPI.
- (5) The Company makes changes to the speed profiles from time to time to align with its current standalone retail speed profiles. When such changes to speed profiles occur, the existing speed profiles will no longer be available to new end-users; however, The Company will destandardize the existing standalone speed profiles until such time as no end-users remain on these speed profiles, at which time the Company may remove these speed profiles.
- (6) The Bonded VDSL Access Charge is for the additional VDSL Access over a Type A copper loop and the aggregation required to provision VDSL Data Access service for the requested speed profile to a service location. The Bonded VDSL Access Charge is always applied as a supplemental charge to the Standard VDSL Data Access charge in service locations where the service cannot be provisioned on a single copper pair.
- (7) The Bonded VDSL Access Service Charge is for the business office work and the technical work required to install and provision, or move Bonded VDSL Access lines, including facility checks that are required to determine the capabilities of the VDSL Access line when the HSSP has optionally requested service at an eligible service address location beyond the operational range of a single copper pair or when the requested speed profile is only available by bonding two copper pairs. This service charge is a supplemental charge to the Standard VDSL Access service charge.
- (8) The monthly charge for the optional "up to 50 Mbps" Profile is applicable to each 50 Mbps speed profile requested by the customer.
- (9) The monthly charge for the optional "up to 75 Mbps" Profile is applicable to each 75 Mbps speed profile requested by the customer. In most cases, bonding will be required to provide this speed profile, at the rates and charges shown for Bonded VDSL Access. If the "up to 75 Mbps" Profile can be provided without bonding, the Company will advise the Customer at the time of the service request.
- (10) The monthly charge for the optional "up to 100 Mbps" Profile is applicable to each 100 Mbps speed profile requested by the customer. Bonding is required to provide this speed profile, at the rates and charges shown for Bonded VDSL Access.

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5830 VERY HIGH-SPEED DIGITAL SUBSCRIBER LINE (VDSL) DATA ACCESS SERVICE -  
continued

6. RATES AND CHARGES - continued

- (11) A 10 GE IP AHSSPI will be provided only where the capacity-based billing (CBB) capacity ordered by the customer is equal to or greater than 3 Gbps. The Customer must maintain a capacity order of at least 3 Gbps on each 10 GE IP AHSSPI installed. A 100 GE IP AHSSPI will be provided only where the capacity-based billing (CBB) capacity ordered by the customer is equal to or greater than 30 Gbps. The Customer must maintain a capacity order of at least 30 Gbps on each 100 GE IP AHSSPI installed.
- (12) An additional charge applies for a Customer with an existing AHSSPI pursuant to Item 5820 and/or Item 5830 to direct all ADSL Access and VDSL Access traffic to a 10GE or 100GE AHSSPI. The charge will be based on time and materials, and may vary depending on the complexity of the Customer request and existing network. This work includes planning and design, afterhours migration, programming and verification of the migration. Time and materials will be charged pursuant to CRTC 24001 Item 510.2.B.(4).

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