



ITEM 650.34

Wholesale Very high bit-rate Digital Subscriber Line (VDSL) Service

1. Service Description

Wholesale VDSL Service (or "the Service") is a broadband access service based on VDSL technology which offers maximum download speeds of 25 Mbps. The Service enables a Competitive Local Exchange Carrier (CLEC), Internet Service Provider (ISP) or Digital Subscriber Line Service Provider (DSLSP), hereinafter referred to as a "High Speed Service Provider (HSSP)" to provide high speed applications through the establishment of a high speed data access path between an End-user's premises and SaskTel's designated provincial aggregation point in the Regina Main Central Office.

VDSL Service uses a transmission technology that provides asymmetric transmission (higher bandwidth in one direction, and lower bandwidth in the opposite direction) of data. VDSL Service delivers high speed, downstream transmission to the End-user and a lower speed, upstream transmission to the HSSP.

VDSL Service uses the available bandwidth above the voice-band on the same SaskTel provided local loop used by SaskTel or a CLEC to provide residential or business Qualifying Network Access Service (NAS) or on a Dry Loop. VDSL Service does not prevent the simultaneous use of the End-user's telephone line for voice-band applications. A subscription by the HSSP or an End-user to a SaskTel or CLEC NAS is not a prerequisite for the VDSL Service.

The Wholesale VDSL Service demarcation at the End-user's premise is the SaskTel Customer Connection Point or demarcation point. The VDSL Service demarcation at the interconnection with a HSSP is the interface, or patch panel associated with an Ethernet switch in SaskTel's designated provincial aggregation point in the Regina Main Central Office. A HSSP may connect to the interface, via either an Ethernet Central Office (CO) Connecting Link to its own co-located transmission equipment or via a SaskTel-provided Ethernet Access between the SaskTel wire centre and the HSSP Point of Presence (POP), to achieve end-to-end connectivity.

The service consists of two mandatory components: VDSL Service Access and VDSL Service Interface and two optional components, Diagnostic Maintenance and VLAN Remapping.

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2. Definitions

For the purposes of this Tariff Item:

"End-user" is defined as being the HSSP's customer, the ultimate user of the digital high speed service application.

"Qualifying Network Access Service (NAS)" is defined as a SaskTel provided local loop used by SaskTel or a CLEC to establish the following voice service applications:

- Non-hunting residential or business touch tone individual line, or
- Non-hunting multi-line trunk, or
- Analog Centrex network access line

"Dry Loop" is defined as ADSL access that is provisioned on a loop which is not used to provide any other service.

"Internet Traffic Management Practices" (ITMPs) are defined as measures that may be used by Internet Service Providers (ISP) to manage Internet traffic through economic or technical means.

"HSSP Name Change" is defined as the situation where one HSSP is requesting that its name be changed to a different billing or official legal name.

"Merger and acquisitions" refers to a situation where a HSSP is transferring a portion of its subscriber base to another HSSP. This also includes two HSSPs merging in order to become one new HSSP, or a single HSSP becoming multiple HSSPs.

A "HSSP cutover or access upgrade" encompasses the case where a HSSP requires larger bandwidth to its POP to accommodate growth in End-user traffic. The HSSP may also be relocating its POP access or transferring all of its existing End-users to a different interface which does not necessarily require an upgrade in bandwidth.

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3. Conditions of Service

1. Components of Service

- 1. The two mandatory components of this VDSL Service tariff are:
 - a) A Wholesale VDSL Aggregated Interface which provides for the aggregation of End-user VDSL traffic associated with a single HSSP, from every VDSL enabled wire centre in SaskTel's serving territory.
 - b) A Wholesale VDSL Access over a loop that qualifies for the Service, where the VDSL serving equipment is located either in a host wire centre or at a remote location, i.e. a location other than a host wire centre.

Note: Enabling the VDSL Service to achieve end to end connectivity between the Interface and the HSSP's network must be established via SaskTel Ethernet Access Service terminating at the HSSP's designated POP or SaskTel Ethernet CO Links terminating at the HSSP's colocated transmission equipment. For these services, refer to SaskTel Ethernet Access Service and Ethernet CO Connecting Link tariffs, respectively.

2. General

- 1. Wholesale VDSL Service is provided under the terms and conditions in this tariff item. The rates for a Wholesale VDSL Access are based on a monthly rate. The Wholesale VDSL Interface provides for an Ethernet 1000 Mbps interface, and is limited to 1000 VLANs (Virtual Local Area Network).
- 2. The Wholesale VDSL Access component of this service consists of the VDSL serving equipment in the serving wire centre and remote location as appropriate, and cross connection of such equipment to either a SaskTel or CLEC provided qualifying NAS as required or on a Dry Loop as referenced later in this tariff.
- 3. The HSSP may be required to provide to SaskTel a Letter of Authorization. A Letter of Authorization is only required when a dispute arises between the End-user and SaskTel or a competitor.



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3. Conditions of Service - Continued

2. General - Continued

- 4. The Service is provided subject to the availability of suitable equipment and facilities as determined by SaskTel. SaskTel determines those of its serving wire centres which will support Wholesale VDSL Service. Wholesale VDSL Access is provisioned at a maximum download speed of 25Mbps, and is only available for those end user locations where such speed is available for SaskTel's retail service. Maximum sustained speeds are not guaranteed.
- 5. Wholesale VDSL Access is available to HSSPs in association with an End-user's qualifying NAS, as defined in this tariff or with a Dry Loop. Such services, however, are not included as part of VDSL Service itself. It is the responsibility of the HSSP to ensure that its End-user obtains a qualifying NAS from SaskTel or CLEC if they require voice services. If an End-user does not require voice services on the same local loop (i.e. Dry Loop), the HSSP is responsible for the additional charges for that loop as per the rates stated in this tariff.
- 6. The VDSL equipment itself is subject to operational constraints related to the characteristics of the underlying loop facility. HSSPs may use Wholesale VDSL Service to establish high speed connections to only those End-user premises located within the operational range of the VDSL transmission equipment associated with a particular SaskTel serving wire centre. HSSPs may not use VDSL Service to establish high speed connections to End-user premises located outside the range of the VDSL transmission equipment, or served by loop facilities which are not capable of supporting the Service.
- 7. SaskTel does not guarantee the level of digital data transmission provided by the HSSP over the End-user's local loop.



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3. Conditions of Service - Continued

2. General - Continued

- 8. In the furnishing of services in this tariff item, SaskTel is not responsible to the HSSP or HSSP's End-user for end-to-end service.
- 9. The HSSP and/or End-user is responsible for installation, operation and maintenance of any customer premise equipment (CPE) device(s), filters, splitters and inside wiring, which are beyond SaskTel's CCP or demarcation point. The HSSP is responsible to ensure the End-user's CPE is compatible with SaskTel's network architecture and meets all SaskTel general terms and conditions, Canadian Standards Association (CSA) and other applicable industry and government safety standards.
- 10. The HSSP will be billed for Wholesale VDSL Access until the HSSP requests termination of the Wholesale VDSL Access; even if the End-user qualifying NAS has been suspended or terminated.
- 11. One Wholesale VDSL Access is required for each End-user.
- 12. One (1) VLAN identifier is allocated for each access between the Enduser's premises and the Wholesale VDSL Interface. Communication between remote subscriber accesses must be done via the HSSP as the Service does not provide for bridging between End-users.
- 13. Reverse (low speed downstream, high speed upstream) VDSL transmission is not permitted.
- 14. The Wholesale VDSL Interface will be located in Regina for all exchanges.
- 15. A minimum of one interface is required for each HSSP. This interface is a pre-requisite for the Wholesale VDSL Access service component.
- 16. The Wholesale VDSL Interface cannot be shared with any other services or traffic (i.e. VDSL traffic only).
- 17. SaskTel does not provide redundancy or access diversity for the Service.

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3. Conditions of Service - Continued

2. General - Continued

- 18. Connectivity between the Wholesale VDSL Interface and the HSSP's POP or Co-locate can be established only via the following services:
 - a) Where the HSSP's equipment is co-located within the same Central office as the Wholesale VDSL Interface, the HSSP would connect using SaskTel's Ethernet Central Office Connecting Link service.
 - b) Where the HSSP's POP is located within the same wire center serving area as the Wholesale VDSL Interface, the HSSP would connect using SaskTel's Ethernet Access service.
- 19. VDSL Service will transparently transport Point to Point Protocol over Ethernet (PPPoE) however the PPPoE termination equipment must be provided, installed and maintained by the HSSP.
- 20. As a condition of service under this tariff, and in accordance with paragraphs 50, 66 and 104 of Telecom Regulatory Policy CRTC 2009-657, Review of the Internet traffic management practices of Internet service providers (TRP 2009-657), customers employing Internet Traffic Management Practices (ITMPs) shall:
 - a) Whether or not they are Canadian carriers, abide by the requirements of subsection 27(2) of the Telecommunications Act with regard to any ITMPs they employ;
 - b) Abide by the disclosure requirements described in TRP 2009-657; and
 - c) Not use for *other purposes personal information collected for the purposes of traffic management* or disclose such information.
- 21. Verification and dispute of VDSL service speed by the HSSP shall be accompanied by adequately detailed documentation regarding testing methodology used, testing hardware used, testing software used, test configurations and detailed test results.
- 22. The HSSP must provide SaskTel with the End-user's service classification (residential or business) in order to apply for each Wholesale VDSL Access. If the HSSP does not or will not provide SaskTel with the proper documentation starting the service classification, it will be assumed that the End-user will use the service in a business setting.



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4. Network and Facilities

- 1. SaskTel does not make any representations that over time its network, equipment, facilities, and services are, or will remain, adapted for use in connection with the HSSP's equipment, facilities and services.
- 2. SaskTel reserves the right to change, in whole or in part the design, function, operation, technology, or layout of its equipment, apparatus, lines, switches, circuits, and devices at its sole discretion. SaskTel shall not be held responsible to the HSSP or a HSSP's End-user for their equipment, apparatus, lines, switches, circuits or devices, in whole or in part, which cease to be compatible with SaskTel's facilities or which become inoperative as a result of SaskTel network changes.
- 3. SaskTel and the HSSP will each provide network-to-network notification to the other party in accordance with the network-to-network notification standards prior to implementing changes to the design, function, operation, technology or layout of its equipment, apparatus, lines, switches, circuits or devices.
- 4. The HSSP shall not implement any changes to its operations, services or network, which would, in the reasonable assessment of SaskTel, materially affect SaskTel's operations, services or network without the prior consent of SaskTel, which shall not be unreasonably withheld.

5. Network Outages

SaskTel does not guarantee uninterrupted operation of the Service and/or
equipment and shall not be liable to the HSSP or any other entity for any
interruption, failure or delay in performance of the Service provided under this
tariff item, or any other SaskTel tariff or agreement. In the event of network
outages or other service problems, nothing in this tariff item shall extend the
liability of SaskTel as specified in the SaskTel Terms of Service or any
component thereof.



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6. Protection

- 1. It is the responsibility of the HSSP to ensure that the characteristics and methods of operation of any circuits, facilities or equipment of the HSSP or its End-users, when connected to SaskTel's network or facilities, shall not:
 - a) interfere with or impair service over any facilities of SaskTel or its connecting carriers;
 - b) cause damage to SaskTel facilities;
 - c) impair the privacy of any communication carried over SaskTel facilities; or
 - d) create hazards to SaskTel's employees or the public.
- 2. If HSSP operations are not in accordance with the preceding, SaskTel will, where practicable, use reasonable efforts to notify the HSSP that the temporary discontinuance of the use of any circuits, facilities or equipment of the HSSP may be required. When prior notice is not practicable, nothing contained within this Tariff Item shall preclude SaskTel from temporarily discontinuing forthwith the availability to the HSSP the Service or any component part thereof if such action is reasonable under the circumstances. In cases of such discontinuance, the HSSP will be promptly notified and afforded the opportunity to correct the condition which gave rise to the temporary discontinuance.
- 3. During any period of temporary discontinuance of the Service caused by a trouble or condition arising in the HSSPs operations, facilities, equipment, or network, no refund for interruption of the Service shall be made.

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7. Rates

The HSSP shall pay to SaskTel the following rates and charges for Wholesale VDSL Service. Such rates and charges are in addition to any other rates and charges that may be applicable.

1. Wholesale VDSL Interface, for each:

Wholesale VDSL Interface* (Note 1)	Monthly Rental	Service Charge
1000 Mbps (Burstable up to 1000 Mbps)	\$274.99	\$411.45

2. Wholesale VDSL Access, for each:

Wholesale VDSL	Monthly Rental	Service Charge
Access: per access*		
Per Access	\$53.49	\$105.04
(Note 2,3,4)		
VLAN Remapping	N/A	52.44
(per access per request)		

* 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.

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7. Rates - Continued

- **Note 1:** In addition to the Wholesale VDSL Interface, either a SaskTel Ethernet Access or Ethernet CO Connecting Link (see SaskTel Ethernet Access Service and Ethernet CO Connecting Link tariff) will be required to terminate the Service at the HSSP's POP or co-locate space. The bandwidth associated with the Ethernet Access or CO link must match or exceed the bandwidth capability of the Wholesale VDSL Interface.
- **Note 2:** Monthly and Service charges apply when provisioned in conjunction with a qualifying NAS. Additional dry loop charges, as specified in this tariff, will apply when the service is provided on a Dry Loop.
- **Note 3:** Each Wholesale VDSL Access service charge includes the initial mapping of one (1) VLAN per access. When a change occurs due to a HSSP cutover or network upgrade, HSSP name changes or HSSP merger or acquisitions, the VLAN Remapping charge applies.
- **Note 4:** If after a firm order has been placed and is cancelled, the applicable Service Charge applies and any incurred costs associated with the provision of the Service, the HSSP shall pay SaskTel all incurred costs, including without limitation, those such as labour and materials.

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7. Rates - Continued

3. The HSSP shall pay to SaskTel the following rates and charges for Wholesale VDSL Service provided on a Dry Loop. Such rates and charges are in addition to any rates and charges specified in this tariff item.

Dry Loop	Band A	Band B	Band C	Band E	Band F	Band G
Charges						
Monthly	\$4.76	\$9.48	\$13.33	\$26.33	\$22.19	\$21.94
Rates						

4. Service Charge for Dry Loops:

Note: Extra construction charges may apply	Service Charge	
Service Charge per Service Order		
Business loop(s), per service order	\$36.22	
Residence loop(s), per service order	19.69	
Service Charge per Loop		
Per loop, Business	20.30	
Per loop, Residence	13.47	

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7. Rates - Continued

5. Other charges:

A Diagnostic Maintenance Charge applies for each test made in response to a HSSP request for repair or testing of a trouble when no trouble is found in SaskTel's Wholesale VDSL Service. Labour charges specified below will apply.

Diagnostic Maintenance repair or test time scheduled*	Labour Charge
During normal working hours,	\$99.72 per hour**
per person	(minimum charge for ½ hour)

- * 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.
- ** Billed in ¼ hour increments.

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