SWITCHED VOICE AND DATA SERVICES

Item 516 **SIP TRUNKING SERVICE**

Note: This tariff item is forborne from regulation in certain exchanges, as identified in the following.
- For Bell MTS in Manitoba, see CRTC 24001, Bell MTS General Tariff Item 473.
- For Bell Canada in Ontario and Quebec, see CRTC 6716, Bell Canada General Tariff Items 60-1 and 60-2.
- For Bell Aliant in Atlantic Canada, see CRTC 21491, Bell Aliant General Tariff Item 200.2.
- For Télébec in Quebec, see CRTC 25140, Télébec General Tariff Item 2.1.6.
- For NorthernTel in Ontario, see CRTC 25510, NorthernTel General Tariff Section N100.4 – Exchange Rate Bands. N

General
516.1

(a) SIP Trunking Service provides customers with voice connectivity for calls to and from the PSTN riding over the customer's data network, which is connected to the Company's Multiprotocol Label Switching (MPLS) network. A SIP Trunk Group provides the signalling and call handling capacity of a single, or a group of, virtual voice channels with local calling rights in the rate centre in which it is associated. Each SIP Trunk Group is billed to a single Pilot Telephone Number (PTN), and may have multiple telephone numbers and features associated with it. Each single virtual voice channel in a SIP Trunk Group is called a "Concurrent Call". Customers may have one or more SIP Trunk Groups, each with one or more Concurrent Calls.

(b) "Company" means Bell MTS, Bell Canada, Bell Aliant, Télébec and NorthernTel. C
The Company will determine the exchanges in which SIP Trunking service will be provided. The service is provided at the Company's discretion within an exchange, subject to the availability of suitable facilities. SIP Trunking service is provided in the following operating territories.

(1) Bell MTS in Manitoba.
(2) Bell Canada in Ontario and Quebec.
(3) Bell Aliant in Atlantic Canada.
(4) Télébec in Quebec.
(5) NorthernTel in Ontario. N

(c) The Company's IP VPN and Ethernet customers are eligible for this service. SIP Trunking requires either IP VPN access that supports Voice Class of Service (CoS) or an Ethernet access with Dedicated Premium Class of Service.

(d) Calls placed to a rate center outside the local calling area to which the customer has purchased SIP Trunk Groups will incur applicable long distance charges between the customer's selected rate centre and the terminating location. Long distance calls will be completed over the network of the customer's chosen long distance provider.

Continued on page 551.1

SWITCHED VOICE AND DATA SERVICES

Item 516 **SIP TRUNKING SERVICE**

General
516.1

(e) Access to 9-1-1 Service:

(1) Nomadic VoIP 9-1-1 Service will be provided for 9-1-1 dialing. Customers placing a Nomadic VoIP 9-1-1 call from a SIP Trunk Group will be routed to an emergency operator (an "Operator") and will have to provide their specific address/location. Once this information has been successfully provided to the Operator, the Operator will route the customer's call to the appropriate Emergency Response Centre or Public Safety Answering Point (PSAP) corresponding to the provided address/location. The PSAP may not handle a Nomadic VoIP 9-1-1 call originating from SIP Trunking service in the same way as it would handle 9-1-1 calls which originate from traditional wireline services.

(2) 9-1-1 calls originating from an address or location outside of Canada cannot be routed to any PSAP or emergency service by the Operator.

(3) Failures in any customer-provided equipment or customer-provided network; outages of the Company's Ethernet, IP-VPN or MPLS networks; or a SIP Trunking service outage may prevent 9-1-1 dialing from working.

(4) The customer must inform all users and potential users of the service of the nature and limitations of the 9-1-1 Service.

(5) 9-1-1 Service is provided at no additional monthly charge.

(6) For Bell Canada, SIP Trunking Service supports Private Switch Automatic Location Identification (PS ALI) Service as set out in CRTC 7396 Bell Canada Special Facilities Tariff Item B55(c). For Bell Aliant, SIP Trunking Service supports PS ALI Service as set out in CRTC 21491 Bell Aliant General Tariff Item 725 - Private Switch Automatic Location Identification (PS ALI) Service. C C C

(7) SIP Trunking Service includes a web portal which customers may use to input and update as needed the most likely address and location information for telephone numbers provided with the SIP Trunking Service. Due to the nature of the SIP Trunking Service, correlation between a telephone number and an end-user is not always possible. The customer is solely responsible for providing the correct address and location information which may be used by the PSAP if the 9-1-1 caller is unable to identify his location. If the customer does not provide the correct address and location information, emergency services may be dispatched to the wrong address. In such cases, the Company and its suppliers are not liable for any and all claims or actions arising out of any such misrouted 9-1-1 calls.

Continued on page 551.2

SWITCHED VOICE AND DATA SERVICES

Item 516 **SIP TRUNKING SERVICE**

General 516.1

(e) Access to 9-1-1 Service: - continued

(8) 9-1-1 Service is not available in certain parts of Canada where local authorities have not made it available.

(f) A customer may order SIP Trunk Groups in one or more exchanges along with the number of Concurrent Calls to be provided in each SIP Trunk Group. The customer must order at least one SIP Trunk Group. SIP Trunk Groups and features are available as follows. Rates are specified in 3. Rates and Charges below. Except as otherwise noted, features are optional. There are two types of SIP Trunk Groups: Standard and Universal. The customer has the option of choosing Concurrent Calls on Standard Trunk Group or Concurrent Calls on Universal Trunk Group.

(1) Concurrent Calls on Standard Trunk Group. Allows one or more calls to be terminated concurrently over the associated Standard Trunk Group, for which separate charges may apply. This provides non-metered calling within the local calling area of the rate centre. The customer may use a Primary Interexchange Carrier (PIC) other than the Company. C C

(2) Concurrent Calls on Universal Trunk Group. Provides the functionality of Alternate Rate Centre Hop (ARCH) and also allows one or more calls to be terminated concurrently over the associated Universal Trunk Group. This provides non-metered local and long-distance calling within the Company's SIP Trunking Service serving area. Provides the ability to utilize low cost call routing through the SIP Trunking Service and allows for sharing of inbound and outbound call capacity across a single SIP Trunk Group. Long distance charges apply as applicable to calls made by the customer to locations outside the Company's SIP Trunking Service serving area. The customer must use the Company as its PIC to be eligible for Concurrent calls on Universal Trunk Groups. C C

(g) The following features are available at rates specified in 3. Rates and Charges below. Except as otherwise indicated, these features are optional.

(1) Geo-Redundancy. Provides the functionality of SIP Service Extension and also provides two or more diverse routes for calls using virtual connections between the customer data center and two or more of the Company's SIP Trunking data centers. If one route fails, the customer can use the alternate route(s) to make and receive calls.

Continued on page 551.3

SWITCHED VOICE AND DATA SERVICES

Item 516 **SIP TRUNKING SERVICE** N

General 516.1

(g) The following features are available at rates specified in 3. Rates and Charges below. Except as otherwise indicated, these features are optional. - continued

(2) A SIP Service Extension (Note) logically extends a customer's Voice or Data Virtual Routing and Forwarding (VRF) instance to the Company's SIP Trunking Service. Customer must have a minimum of one SIP Service Extension and may have a maximum of 3 SIP Service Extensions. SIP Service Extension will be replaced by Geo-Redundancy for new contracts.

(3) Telephone Numbers: Telephone Numbers are inbound numbers on the SIP Trunk Group, including conversion numbers for alternate carrier Toll-Free numbers, for the purpose of receiving calls, sending out name and number, and identifying users. The customer must order at least one Telephone Number for each SIP Trunk Group.

(4) Alternate Rate Centre Hop (ARCH) (Note): Allows the customer free toll calling between exchanges in which the customer has subscribed to SIP Trunk Groups. ARCH charges apply to the Concurrent Calls in all SIP Trunk Groups in all exchanges other than the exchanges in which the customer's VoIP equipment interconnecting to SIP Trunking Service is located. ARCH will be replaced by Concurrent Calls on Universal Trunk Group for new contracts.

(5) Standard Trunk Group. Establishes the software group of virtual connections to create the standard trunk group.

(6) Overflow Handling – PSTN: Provides the ability for a customer's incoming calls to overflow from a SIP Trunk Group to a customer's existing PSTN number, when the customer's usage exceeds the number of Concurrent Calls purchased for the SIP Trunk Group. Toll charges may apply to overflow calls. N

Note: SIP Service Extension and Alternate Rate Centre Hop are only available in the operating territory of Bell Canada and Bell MTS. N N

Continued on page 551.4

SWITCHED VOICE AND DATA SERVICES

Item 516 **SIP TRUNKING SERVICE**

General 516.1

(g) The following features are available at rates specified in 3. Rates and Charges below. Except as otherwise indicated, these features are optional. - continued

(7) Overflow Handling – Trunk Group: Provides the ability for a customer's incoming calls to overflow from a SIP Trunk Group to another existing SIP Trunk Group, when the customer's usage exceeds the number of Concurrent Calls purchased for a SIP Trunk Group.

(8) Destination Unreachable – PSTN: Provides the ability to reroute a customer's calls from a SIP Trunk Group to a customer's existing PSTN number, when a customer-side outage prevents SIP Trunking service calls from reaching the customer's VoIP equipment. Toll charges may apply to rerouted calls.

(9) Destination Unreachable – Trunk Group: Provides the ability to reroute a customer's calls from a SIP Trunk Group to another existing SIP Trunk Group, when a customer-side outage prevents SIP Trunking service calls from reaching the customer's VoIP equipment.

(10) Outgoing Name and Number Display: Provides the ability for the customer to set a name and/or a number that is viewable on the set of the terminating number receiving the call.

(11) PBX Offloading: Allows a customer IP PBX to release local trunk resources (concurrent calls) after a successful incoming to outgoing call transfer.

(12) Calling ID Name and Number: Provides the ability for customers to view the incoming caller's name and telephone number when available.

(13) Disposition Codes (Media Treatment): Allows customers to replace the standard network playback message for out of service telephone numbers with a customized message. N

(14) Dual Tone Multi-Frequency Transcoding (DTMF): Provides "In-band" to "out-of-band" signaling conversion and vice versa to properly enable the use of DTMF tones on certain customer PBX equipment. N

Continued on page 551.4.1

SWITCHED VOICE AND DATA SERVICES

Item 516 **SIP TRUNKING SERVICE** N

General 516.1

(g) The following features are available at rates specified in 3. Rates and Charges below. Except as otherwise indicated, these features are optional. - continued

(15) G.729 Option (G.711 also supported): Allows customers to select a lower bandwidth protocol for voice call optimization.

(16) Load Balance/IP Failover: Enables distribution and balancing of the customer's inbound traffic between two and ten customer end-points. The feature also provides IP failover in the event that one customer end-point is unreachable.

(17) Remote Call Forward (RCF) Bundles: Provides customers with the option to enable Call Forward: All Calls; and Call Forward: Out of service, and can be managed by a customer administrator or individual end-users. Scheduling capabilities, such as time of day call routing, can be applied to the Call Forward: All Calls option at the individual telephone number level or for a Telephone Number Plan.

(18) T.38 Codec (native fax): Allows customer end devices to select a specific protocol to more efficiently transport Fax messages over IP networks. N

Continued on page 551.5

SWITCHED VOICE AND DATA SERVICES

Item 516 **SIP TRUNKING SERVICE** N

General 516.1

(h) The customer must subscribe to at least one SIP Trunk Group per exchange where SIP Trunking Service is provided to the customer.

(i) When an incident or trouble results in a missed Service Level Agreement (SLA) commitment, the customer will be issued a credit, as outlined in 4. below, upon request by the customer.

Terms and Conditions 516.2

(a) The service is available either on a month-to-month basis or for the following Minimum Contract Periods (MCPs):

- 1 year;
- 2 years;
- 3 years;
- 4 years; and
- 5 years.

(b) The customer may terminate any part of the service before the expiry of an MCP, in which case termination charges apply and will be equal to fifty percent (50%) of the remaining monthly payments for the unexpired portion of the MCP plus 100% of any reasonable out-of-pocket expenses that the Company incurs in connection with the any contractual arrangements with suppliers in connection with the service.

(c) If the customer terminates a service prior to the expiry of an MCP, and orders any alternative VoIP access service provided on a contracted basis, and the total contracted fees for the new service are not less than the total remaining fees for the terminated service during the remainder of the MCP, then the termination charges in 2.(b) above do not apply. If the charges under the customer's new contract are less than those remaining on the customer's current contract, the customer's termination liability will be one-half of the difference between the charges remaining on the original contract and the charges of the new contract. N

Continued on page 551.6

SWITCHED VOICE AND DATA SERVICES

Item 516 **SIP TRUNKING SERVICE**

Terms and Conditions 516.2

(d) The customer may obtain additional services prior to the expiry of an existing MCP, at the applicable MCP rates, provided that the services are obtained at least 6 months prior to the expiry of the current service term. Additional services may be obtained prior to the expiry of an existing MCP at the applicable monthly rates, or at the applicable MCP rates if the customer renews the MCP for a subsequent renewal term.

(e) SIP Trunking Service concurrent calls, trunk groups and associated features as provided in the operating territory of Bell MTS, Bell Canada, Bell Aliant and Télébec are included in the number of concurrent call, trunk group and feature counts for the purpose of determining SIP Trunking Service rates, charges and discounts.

(f) SIP Trunking Service uses telephone numbers that conform to the North American Numbering Plan (NANP). As required by Compliance and Enforcement and Telecom Regulatory Policy CRTC 2018-484 (CETRP 2018-484), *Implementation of universal network-level blocking of calls with blatantly illegitimate caller identification*, the customer must ensure that no calls are delivered over this service that do not conform with the requirements of CETRP 2018-484.

(g) Extensions : In lieu of the renewal provision above, and subject to the agreement of the Company and the customer, MCP customers may also avail of an extension to their MCP in one year increments, at the existing MCP terms, conditions and rates. The customer may select an individual one year extension period, multiple consecutive one-year extension periods, or a period or periods of between one and five years. Additional extensions of one year increments beyond five years at existing MCP terms, conditions and rates are available, subject to the agreement of the Company and the customer.Termination charges in any extension period apply as set out in Item 516.2(b). N

(h) Negotiation Period following the end of the current MCP contract : where the customer has indicated that it does not wish automatic renewal to take place and has not selected an extension period as noted above, and subject to the agreement of the Company and the customer, service may continue beyond the end of the current MCP contract at the same rates, terms and conditions for a period of up to six months, for the purpose of negotiating a subsequent contract for this or another Company-provided local access service (the "Negotiation Period"). If, by the end of the Negotiation Period, the Company and the customer are unable to agree to a subsequent contract for this or another Company-provided local access service, the Company will, in addition to the MCP contract rates, bill the customer the difference between the applicable non-contract rates that would have applied at the end of the MCP and the MCP contract rates. N

Continued on page 551.6

SWITCHED VOICE AND DATA SERVICES

Item 516 **SIP TRUNKING SERVICE**

Rates and Charges 516.3 (a) The following rates apply:

	Monthly Rate		Service Charge	
	Minimum	Maximum	Minimum	Maximum
Concurrent Calls on Universal Trunk Group (Notes 1 & 2)	# R	$ 35.00	#	$ 75.00
Concurrent Calls on Standard Trunk Group (Notes 1 & 2)	# R	30.00	#	75.00
Alternate Rate Centre Hop per Concurrent Call (Note 3)	#	25.00	N/A	N/A
SIP Service Extension (Notes 3 & 4)	#	30.00	#	300.00
Standard Trunk Group (Note 5)	#	15.00	#	75.00

N/A = Not Applicable

Note 1: Service charge applies per installation per Concurrent Call.

Note 2: A maximum total service charge of $10,000 applies for each group of up to 500 Concurrent Calls with the same due date.

Note 3: For new MCPs, Concurrent Calls on Universal Trunk Group will be provided in lieu of Alternate Rate Centre Hop, and Geo-Redundancy will be provided in lieu of SIP Service Extension.

Note 4: Service charge applies per SIP Service Extension installation between the SIP Trunking Service and the customer's WAN.

Note 5: At least one SIP Trunk Group is required per exchange. Service charge applies per SIP Trunk Group installation. This charge applies in addition to the rates and charges for Concurrent Calls on Standard Trunk Group.

Filed in confidence with the CRTC.

Continued on page 551.7

SWITCHED VOICE AND DATA SERVICES

Item 516 **SIP TRUNKING SERVICE**

Rates and Charges 516.3

(b) Telephone Numbers

	Monthly Rate			Service Charge		
	Minimum		Maximum	Minimum	Maximum	
Month-to-month	#		$ 5.00	#	$ 3.00	
1 Year MCP	#	R	5.00	#	3.00	
2 Years MCP	#		5.00	#	3.00	
3 Years MCP	#		5.00	#	3.00	
4 Years MCP	#		5.00	#	3.00	
5 Years MCP	#	R	5.00	#	3.00	

(c) Optional Elements:

	Monthly Rate			Service Charge			
	Minimum		Maximum	Minimum		Maximum	
Overflow Handling – PSTN (Note 1)	#	R	$ 15.00	#	R	$ 30.00	
Overflow Handling – Trunk Group (Note 1)	#		15.00	#		30.00	
Destination Unreachable – PSTN (Note 1)	#		15.00	#		30.00	
Destination Unreachable – Trunk Group (Note 1)	#	R	15.00	#		30.00	
Outgoing Name and Number Display (ONND) (Notes 2 & 4)	#		4.00	#		15.00	
Calling ID Name and Number (Note 3)	#		4.00	#	R	15.00	
Geo-Redundancy, per Concurrent Call (Note 1	#	R	5.00	#		250.00	
PBX Offloading (Note 1)	#	R	25.00	#		75.00	
Remote Call Forward (RCF) Bundles (Note 5)	#		80.00	#		100.00	N
Load Balance/IP Failover, per Concurrent Call (Note 1)	#		2.00	#		50.00	
Dual Tone Multi Frequency (DTMF) Transcoding, per Concurrent Call (Note 1)	#		1.00	#		50.00	
Disposition Codes (Media Treatment), per Concurrent Call (Note 1)	#		1.00	#		1,000.00	
G.729 Option (G.711 also supported), per Concurrent Call (Note 1)	#		1.00	#		50.00	
T.38 Codec (native fax), per Concurrent Call (Note 1)	#		3.00	#		50.00	N

Note 1: Service charge applies per installation of this feature.

Note 2: Service charge applies per Telephone Number on which feature is requested.

Note 3: Service charge applies per SIP Trunk Group on which feature is requested.

Note 4: A maximum total service charge of $5,000 applies for each group of up to 500 telephone numbers with ONND with the same due date.

Note 5: Service charge applies per bundle (Each RCF Bundle provides up to 10 telephone numbers). N

Filed in confidence with the CRTC.

Continued on page 551.8

SWITCHED VOICE AND DATA SERVICES

Item 516 **SIP TRUNKING SERVICE**

Rates and Charges 516.3

(d) Volume and Term Discounts

The following discounts apply to all monthly rate elements except Telephone Numbers.

MCP	Discount Schedule			
	Total Number of Concurrent Calls			
	1-500		501+	
	Minimum Discount	Maximum Discount	Minimum Discount	Maximum Discount
1 year	0.00%	#	0.00%	#
2 years	0.00%	#	0.00%	#
3 years	0.00%	#	0.00%	#
4 years	0.00%	#	0.00%	#
5 years	0.00%	#	0.00%	#

(e) Charges for Relay Service apply to each Concurrent Call purchased as set out in the following tariff items.

(1) For Bell MTS, see CRTC 24001, Bell MTS General Tariff Item 2147 - Message TTY and IP Relay (M&IPR) Service.
(2) For Bell Canada, see CRTC 6716, Bell Canada General Tariff Item 70.4 - Bell Canada Relay Service (BCRS).
(3) For Bell Aliant, see CRTC 21491, Bell Aliant General Tariff Item 240 - Message Relay Service.
(4) For Télébec, see CRTC 25140, Télébec General Tariff Item 2.1.7.9 - Service de relais Bell (SRB).
(5) For NorthernTel, see CRTC 25510, NorthernTel General Tariff Section N100.5.04 Exchange Service - General - Relay Service. N N

(f) The customer is provided one directory listing in each exchange in which the customer has established SIP Trunking Service, if required, at no additional charge. Additional listings, if required, are provided at the rates set out in the following tariff items.

(1) For Bell MTS, see CRTC 24001, Bell MTS General Tariff Item 1600 – Directory Listings.
(2) For Bell Canada, see CRTC 6716, Bell Canada General Tariff Item 220 – Extra Listings.
(3) For Bell Aliant, see CRTC 21491, Bell Aliant General Tariff Item 125 - Directories and Listings.
(4) For Télébec, see CRTC 25140, Télébec General Tariff Item 2.27.6 - Taux mensuels des inscriptions supplémentaires.
(5) For NorthernTel, see CRTC 25510, NorthernTel General Tariff Section N140.4 – Directory Listings, Extra Listings. N N

Filed in confidence with the CRTC.

Continued on page 551.9

SWITCHED VOICE AND DATA SERVICES

Item 516 **SIP TRUNKING SERVICE** N

Service Levels 516.4

(a) Credits will be provided to eligible customers, upon request, if the service fails to meet the service levels defined in Item 4. below. To be eligible for Service Level credits, a customer must, for the period for which credits have been requested, have a minimum of 200 concurrent calls and must have passed a Network Readiness Assessment performed by the Company. As an alternative to a Network Readiness Assessment, the customer is eligible for Service Level credits where, for the period for which credits have been requested, the customer has a minimum of 200 concurrent calls and the Company manages the customer voice infrastructure.

(1) As an exception to the above, for Bell MTS only, Credits will be provided to eligible customers, upon request, if the service fails to meet the service levels below. To be eligible for Service Level credits, a customer must, for the period for which credits have been requested, have a minimum of 23 concurrent calls.

(b) Availability is the measurement of an average trunk availability across all users in one customer's SIP Trunking solution within a specified Calendar Month Period (CMP). It is defined as the average ability of all users to complete calls to and from the PSTN in the subscribed exchange over a primary or secondary route. Availability is measured and reported as a percentage over the CMP, 24 hours per day and evaluated for compliance monthly.

(c) Availability is measured based on the total outage time less any deferred/excusable downtime time documented in service affecting tickets which are reported by the customer or outages detected by the Company's systems which are directly attributable to the Company, multiplied by the number of trunks affected by the outage. It is calculated based on service restoral via an alternate route where applicable, or repair of the primary component if redundancy is not available.

(d) The formula to calculate Availability is:

(# of Concurrent Calls in Category X Available Minutes/Month – Concurrent Call Outage Minutes/Month) / # of Concurrent Calls in Category X Available Minutes / Month. N

Continued on page 551.10

SWITCHED VOICE AND DATA SERVICES

Item 516 **SIP TRUNKING SERVICE** N

Service Levels 516.4

(e) The customer will be credited with 5% of the total monthly recurring charges for the SIP Trunking Service in the event of a breach of the Availability service level of 99.90%.

(1) As an exception to the above, for Bell MTS only, for Availability, the customer will be credited with 5% of the total monthly recurring charges for the SIP Trunking Service in the event of a breach of the Availability service level of 99.90% between 12:00 AM to 5:59 AM, and 99.99% between 6:00 AM to 11:59 PM Eastern time.

(f) Time To Restore is the elapsed time from the time a particular customer calls the Company to report a service affecting trouble to the time when service is restored to normal operating performance, whether via primary or backup systems. Mean Time to Restore is the average Time to Restore of all service affecting trouble tickets within the Calendar Month Period.

(g) Mean Time to Restore will be measured using the Company's Incident/Trouble Ticketing System.

(h) The following items are excluded from the calculation of Mean Time to Restore:

- Components not managed & maintained by the Company that have a direct and/or indirect impact on the service, the Company's ability to provide the service or the Company's ability to report on the service;
- Local access facilities, private line or other services not supplied or sub-contracted through the Company;
- "No Trouble Found" trouble tickets; and
- Troubles occurring during IP VPN / Ethernet maintenance windows on that particular site.

(i) The customer will be credited with 5% of the monthly recurring charges for the SIP Trunks affected by outages that breach the service level threshold of 4 hours for service affecting incidents. N

Continued on page 551.11

SWITCHED VOICE AND DATA SERVICES

Item 516 **SIP TRUNKING SERVICE** N

Service Levels 516.4

(j) The service level thresholds and any associated credits will not apply in the following circumstances:

- Changes requested or made after an initial order will invalidate the current month's SLAs.

- When a customer subscribes to more than one SIP Service Extension, a loss of one of the two links shall not be considered as "service unavailable". For further clarity, service availability will be reported as available since the secondary extension, if any, is available to route the customer's traffic. However any credits associated with MTTR will be applicable. N