

DIGITAL NETWORK SERVICES1. DIGITAL CHANNEL SERVICE DESTANDARDIZED NOT AVAILABLE FOR NEW
INSTALLATIONS OR ON CHANGES OF ADDRESS

1.01 General

a) Digital Channel Service (DCS) is furnished, where facilities are available, for the digital transmission of information at synchronous speeds of 1.2, 2.4, 4.8, 9.6, 19.2 or 56.0 kilobits per second between two points in the same serving area. A serving area consists of one or more Exchanges as specified in (d) following. C

b) The Company determines the serving areas within which it will provide service. The service is provided at the Company's discretion within a serving area. Multi-point and multi-drop channel configurations are not available.

c) The service consists of three components as follows:

1) Access

This provides the customer with a digital interface and a digital local loop from the customer's premises to the serving Wire Centre within a serving area. C

2) Link

This provides the Central Office equipment required to connect accesses in the same Wire Centre or to connect an access to a channel. C

3) Channel

This provides the digital facility between EAS Wire Centres required to connect accesses whenever they are located in different EAS Wire Centres within a serving area. As well, the channel charge applies from the base rate boundary to the customer's location when the latter is situated outside the base rate boundary. C

d) The Digital Channel Service serving areas consist of the serving area and Exchanges following: C

DCS Serving Area Exchanges

Timmins

Kamiskotia

Connaught

Ramore

Iroquois Falls

South Porcupine

Timmins

Kirkland Lake

Kirkland Lake

Swastika

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1. DIGITAL CHANNEL SERVICE DESTANDARDIZED (CONT'D)

1.01 General (Cont'd)

<u>DCS Serving Area</u>	<u>Exchanges</u>
New Liskeard	Cobalt Haileybury Earlton Latchford Englehart New Liskeard
Kapuskasung	Fauquier Moonbeam Kapuskasung Opasatika Mattice Smooth Rock Falls

1.02 Rates and Charges

- a) The following monthly rates provide for the appropriate Digital Channel Service components between service points in the serving area.
- b) A service charge as shown applies to install each access at a desired speed, to change from one operating speed to another or to change the location of a service point.

	<u>MRC</u>	<u>SC</u>	<u>USOC</u>
Access, per service point including Relay			
Service in N100 item 5.04 b)- all speeds	\$150.13	\$198.30	DCSA4
Link, per serving Wire Centre - all speeds	108.00	-	DCL02
Channel, each 400 meters - all speeds	3.30	MESC	1ARBY

2. DS-1 DIGITAL SERVICE DESTANDARDIZED NOT AVAILABLE FOR NEW INSTALLATIONS OR ON CHANGES OF ADDRESS

2.01 General

- a) DS-1 Digital Service is furnished for the digital transmission of information at 1.544 MBPS (DS-1) between two points in the same Exchange or between Exchanges.
- b) The DS-1 Digital Service has a maximum route distance of 12,000 feet or 3,658 metres. Beyond this distance, a special assembly is required to provide digital service.
- c) The Company determines the serving areas within which it will provide service. The service is provided at the Company's discretion within a serving area. Multi point and multi drop configurations are not available.

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2. DS-1 DIGITAL SERVICE DESTANDARDIZED (CONT'D)**2.01 General (Cont'd)**

- d) The DS-1 Digital Service is offered on a monthly basis.
- e) The DS-1 Digital Service may be connected to customer provided or Company provided terminal equipment located at the customer's premises.
- f) The service consists of the following:
- 1) The DS-1 Digital Service Facility, which allows 1.544 MBPS transmission between the Company's Central Office and the customer premises.
 - 2) The DS-1 Digital Service Common Equipment, which is located at the customer premise, is a Multiplexer unit which accepts the 4 wire E & M, RS232 and the V35/RS 422 data cards.
 - 3) The DS-1 Digital Service Termination 4 wire E & M Card, which is a voice card providing four voice circuits. The card enables the customer to transmit voice messages. This card plugs into the DS-1 Digital Service common equipment.
 - 4) The DS-1 Digital Service Termination RS232 Data Card provides four RS232 data circuits. The card enables the customer to transmit data information. This card plugs into the DS-1 Digital Service common equipment.
 - 5) The DS-1 Digital Service Termination V35/RS 422 Data Card provides four V35/RS 422 data circuits. The card enables the customer to transmit data information. This card plugs into the DS-1 Digital Service common equipment.
 - 6) The DS-1 Digital Service Data Module Interface consisting of two components: a) the quad 2B2Q Synchronous NTU data module at the front end and b) the 2 wire 2B1Q NYU Interface at the rear of the unit. These two modules interface on to the digital service common equipment and provide four data ports.
 - 7) The Digital Terminating Single Channel RS-232-D/V.24NTU data standalone unit is required at the remote end of the circuit. This allows the link between the host and remote site for data transmission.

2.02 Rates and Charges

- a) The following monthly recurring rates and service charges provide for the appropriate DS-1 Digital Service components.
- b) Local Channels are to be provided between the Company's Central Office and customer premise. See N260, 3.0 for rates and charges.

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2. DS-1 DIGITAL SERVICE DESTANDARDIZED (CONT'D)

2.02 Rates and Charges (Cont'd)

The Relay Service rate in N100, Item 5.04 b) is included.

<u>DESCRIPTION</u>	<u>MRC</u>	<u>SC</u>	<u>USOC</u>
DS-1 Digital Service Facility	\$ 387.13	\$3,300.00	DS1SF
DS-1 Digital Service Common Equipment	1,600.00	2,860.00	DS1CE
DS-1 Digital Service Termination 4 Wire E & M Card	140.00	154.00	DS1EM
DS-1 Digital Service Termination RS232 Data Card	150.00	154.00	DS12D
DS-1 Digital Service Termination V35/RS 422 Data Card	160.00	154.00	DS14D
DS-1 Digital Service Termination V24/RS 232 Data Unit (Single Channel)	70.00	154.00	DS1SC
DS-1 Digital Service Data Module Interface Card	250.00	176.00	DS1DM
DS-1 Digital Service LBRV Channel Module	250.00	176.00	DS1CM
DS-1 Digital Service 4 Wire E&M Voice Channel Interface Module	75.00	176.00	DS1VC

3. SWITCH 56 DATA SERVICE

3.01 General

a) Switch 56 Data Service provides customers with digital end to end connectivity through the switched network service by using the access components of a local access line and a digital data service unit.

b) The Switch 56 Data Service functions in the line-serving switch Central Office switches when the serving address is between 4.0 cable kilometers using 26 gauge cable and 5.5 cable kilometers using 22 or 19 gauge cable from the line-serving switch Central Office switch. Beyond this distance, a special assembly is required. C

c) The Switch 56 Data Service is offered in Exchanges where suitable facilities exist. Multi-point and multi-drop configurations are not available. C

DIGITAL NETWORK SERVICES

3. SWITCH 56 DATA SERVICE (CONT'D)

3.01 General (Cont'd)

d) The Switch 56 Data Service Feature provides for digital call completion at speeds of up to 56 kilobits per second and allows the company to offer enhanced and intelligent switched high speed digital applications such as Group IV fax machine transmission, video conferencing, high speed Personal Computer file transfer and medical imagery transfer.

e) The Switch 56 Data Service Unit is a proprietary standalone unit located at the customer premises that interfaces the network to perform network signalling, call supervision, functions and activates test functions as specified by network commands.

The Switch 56 Data Service Unit terminates on a 6 position teledapt connection arrangement, eliminating the need for costly special data cables.

f) The Switch 56 Data Service is offered on a monthly tariff rental basis.

3.02 Rates and Charges

a) The following monthly recurring rates and service charges provide for the appropriate Switch 56 Data Service components. The Relay Service rate in N100, item 5.04 b) is included.

	<u>MRC</u>	<u>SC</u>	<u>USOC</u>
SWITCH 56 DATA SERVICE FEATURE each	\$65.90	MESC	DSF10
SWITCH 56 DATA SERVICE UNIT each	\$47.50	\$100.00	DSU56

DIGITAL NETWORK SERVICES

4. DS-1 DIGITAL SERVICE CUSTOMER PROVIDED EQUIPMENT (CPE) ACCESS

4.01 General

- a) DS-1 Digital Service with Customer Provided Equipment (CPE) Access at the customer premises is furnished for the digital transmission of information at 1.544 MBPS (DS-1) between two points in the same Exchange or between Exchanges.
- b) The DS-1 Digital Service (CPE) Access distance limitations are determined by the customer's provided equipment and is not the responsibility of the Company. A special assembly may be required to support distances beyond the limitation of the customer provided equipment.
- c) The Company determines the serving areas within which it will provide service. The service is provided at the Company's discretion within a serving area. Multi-point and multi-drop configurations are not available.
- d) The DS-1 Digital Service (CPE) Access is offered on a monthly basis.
- e) The service consists of the following:
 - 1) The DS-1 Digital Service (CPE) Access provisioned with two accesses which allows 1.544 MBPS transmission between the Company's Central Office and the customer premises on a jacked-end local loop.
 - 2) The link provides for a hard-wire connection required in the Central Office to connect the two accesses.

4.02 Rates and Charges

- a) The following monthly recurring rates and service charges provide for the appropriate DS-1 Digital Service (CPE) Access components.

DESCRIPTION	MRC	S/C	USOC
DS-1 Digital Service (CPE) Access	\$119.10	655.00	DS1CP
DS-1 Digital Service (CPE) Link	\$ 60.00	-----	DS1CL

DIGITAL NETWORK SERVICES

5. DIGITAL EXCHANGE ACCESS

5.01 General

- a) Digital Exchange Access (DEA) service provides digital access between the customer's premises or other service point and the Company's local switched network. The access is provided on a DS-1 Digital Service basis (1.544 Mbps) sub-divided into 24 DS-0 time slots at the Company's digital switching systems.
- b) The Company determines the Exchanges where DEA service will be provided. The service is provided at the Company's discretion within an Exchange, subject to the availability of suitable facilities. C
- c) DEA service is offered on a monthly basis.
- d) DEA service may be connected to customer-provided or Company-provided terminal equipment subject to the terms and conditions of Section N850. C
- e) DEA 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 CTRP 2018-484.

5.02 Service components

DEA service consists of the following components: DS-1 Digital Service Facility and Local Switched Network Connectivity.

- a) DS-1 Digital Service Facility
 - (1) The DS-1 Digital Service Facility provides the customer with a jack-ended digital local loop from the customer's premises or the service point to the customer's serving Wire Centre within an Exchange. It is only available on a DS-1 Digital Service basis consisting of 24 DS-0 time slots. C
 - (2) The Local Switched Network Termination provides the connection between the DS-1 Digital Service Facility and the Local Switched Network. The Local Switched Network Termination is available on a DS-1 Digital Service basis which is sub-divided to 24 DS-0 time slots. A Local Switched Network Termination is required for each DS-1 Digital Service Facility the customer obtains.

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5. DIGITAL EXCHANGE ACCESS (Cont'd)

5.02 Service Components (Cont'd)

b) Local Switched Network Connectivity

The Network component provides for the use of network facility particular to a service which can be accessed through DEA. This service is the network portion of Primary Exchange Service (see Section N100 of the General Tariff) (referred to as Local Switched Network Connectivity). One DS-0 time slot is required for each network service. Local Switched Network Connectivity is provided in multiples of 24 DS-0.

5.03 Rates and Charges

The following rates and charges apply at each location for each customer:

a) DS-1 Digital Service Facility

The rates and service charges are those specified in Section N900, Item 2 - DS-1 Digital Service and/or Item 4 - DS-1 Digital Service Customer Provided Equipment (CPE) Access

b) Local Switched Network Termination

	MRC	SC	USOC
Local Switched Network Termination each DEA	\$237.60	N/A	DEANT
Local Switched Network Connectivity in multiples of 24 DS-0	Note 1	\$1200.00 Note 2	DEANC

Note 1: The Local Switched Network Connectivity rate is the Multi Access Line Rate Band of the Exchange where the services is provided, in Section N100 and the Relay Service rate in CRTC 25510 Section N100, Item 5.04 b). The local switched network connectivity circuits can be configured as Multi access lines, Direct Inward Dial trunks, Direct Outward Dial trunks or as both way trunks as long as the local Exchange is equipped to support these combination of services.

Note 2: Multi Element Service Charges apply to subsequent additions and changes performed by the Company at the customer's request.

DIGITAL NETWORK SERVICES

6. ASYMMETRIC DIGITAL SUBSCRIBER LINE (ADSL) ACCESS SERVICE

6.01 General

- a) Asymmetric Digital Subscriber Line (ADSL) Access service enables a provider of high-speed applications such as Local Area Network (LAN) extensions and high-speed Internet access (hereinafter referred to as "service provider"), to establish a high-speed data access path between its end-user's premises and the Company's Exchange. For the purposes of this Item, "end user" is defined as being the service provider's customer. C
- b) ADSL Access service uses available band-width above the voice-band on the same local loop as the end-user's existing Company or CLEC - provided residential or business individual line, primary exchange service and Centrex Service voice locals terminating on other than Electronic Business Sets (EBS). The service is limited to lines terminating on single line station equipment. The service does not prevent the simultaneous use of the end-user's telephone line for voice-band applications such as voice transmission, permissive data or facsimile.
- c) The service demarcation for a given Company Exchange consists of a service provider-dedicated ADSL Interface. A service provider may connect to this interface via either its own co-located transmission equipment or via appropriate Company-provided facilities, to achieve end-to-end connectivity for applications such as Internet access. C
- d) ADSL Access service has been structured to enable service providers to acquire the appropriate essential service elements required to offer a competitive alternative if desired.

6.02 Terms and conditions

- a) The Company determines those Exchanges which will support ADSL Access service. C
- b) ADSL Access service is only available to service providers in association with an end-user's Company or CLEC (subject to the condition that the underlying facilities are provided by NorthernTel (i.e. leased loop)- provided residential or business individual line, primary exchange service and Centrex Service voice locals terminating on other than EBS sets. The service is limited to lines terminating on single line station equipment. Such service, however, is not included as part of ADSL Access service itself. It is the responsibility of the service provider to ensure that its end-user leases a residential or business individual line, primary exchange service or Centrex Service voice local from the Company.

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6. ASYMMETRIC DIGITAL SUBSCRIBER LINE (ADSL) ACCESS SERVICE (Cont'd)

6.02 Terms and conditions (Cont'd)

- c) The ADSL equipment itself is subject to operational constraints related to the characteristics of the underlying loop facility. Service providers may use ADSL Access service to establish high-speed connections to only those end-user premises located within the operational range of the ADSL transmission equipment associated with particular Company Exchanges. Service providers may not use ADSL Access service to establish high-speed connections to end-users premises located outside the range of the ADSL transmission equipment, or served by NorthernTel leased loops, primary exchange service or Centrex Service voice locals facilities (loops), having excessive bridge taps, equipped with load coils or which are not capable of supporting metallic continuity. C
- d) If an end-user cancels his primary exchange service or Centrex Service voice local or if it is otherwise removed from service, billing for ADSL Access service will continue until the Company has been informed by the service provider that ADSL Access service is to be terminated.
- e) As an exception to the provisions of Article 20 of the Company's Terms of Service, a service termination charge equal to the total remaining balance of the monthly rates for the minimum contract period chosen by the service provider applies for early termination of this service.
- f) Where the end-user's individual line, primary exchange service or Centrex Service voice local loop currently meets the Company's technical requirements for ADSL service, in particular metallic continuity, the Company will provide its customer for ADSL service with a minimum of one year's advance notice of any facility change that would eliminate metallic continuity on that end-user's loop.

DIGITAL NETWORK SERVICES

6. ASYMMETRIC DIGITAL SUBSCRIBER LINE (ADSL) ACCESS SERVICE (Cont'd)

6.02 Terms and conditions (Cont'd)

- g) "*Internet Traffic Management Practices*" (ITMPs) are defined as measures that may be used by Internet Service Providers (ISPs) to manage Internet traffic through economic or technical means.
- h) 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:
- (1) 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;
 - (2) abide by the disclosure requirements described in TRP 2009-657; and
 - (3) not use for other purposes personal information collected for the purposes of traffic management or disclose such information.

6.03 Rates and Charges

ADSL Access service: ADSL Access service enables service providers to establish a high-speed data access path between its end-user's premises and the Company's Exchanges. The arrangement also provides for simultaneous use of the telephone line for voice-band applications. C

- a) The service consists of three components, namely:

ADSL High-Speed Service Provider Interface: a DS-3 interface, subject to a minimum contract period of 1, 2 or 3 years, which concentrates a number of ADSL accesses for connection to the service provider's network. A minimum of one interface is required for each service provider in a given Company Exchange. This DS-3 interface is a pre-requisite for the ADSL Access component described below, and only available for C

DIGITAL NETWORK SERVICES

6. ASYMMETRIC DIGITAL SUBSCRIBER LINE (ADSL) ACCESS SERVICE (CONT'D)

6.03 Rates and Charges (Cont'd)

use in conjunction with such Company-provided ADSL Access component. Alternatively, should a service provider require an alternative interface configuration, such requirements would be addressed by the Company via a Special Assembly Tariff.

- ADSL Loop Administration and Support: Verification that a particular end-user's Company or CLEC (subject to the condition that the underlying facilities are provided by NorthernTel (i.e. leased loop) - provided, individual line, primary exchange service or Centrex Service voice local will support ADSL Access service, cross-connection of the loop to the connecting link associated with the ADSL equipment and on-going administration and support of ADSL on the leased loop, the primary exchange or Centrex loop. This charge applies for each individual line, primary exchange service facility or Centrex Service voice local (loop) connected to the ADSL transmission equipment.
- ADSL Access: consists of the ADSL transmission equipment in the Exchange and the connecting link between the main distribution frame and the ADSL transmission equipment. One Access is required for each loop connected. ADSL Access is only available in conjunction with an existing ADSL High-Speed Service Provider Interface and an existing Company or CLEC (subject to the condition that the underlying facilities are provided by NorthernTel (i.e. leased loop) - provided, residential or business individual line, primary exchange service or Centrex Service voice local.

b) The following rates and charges apply to the various components:

ADSL Associated with Residential Lines	Monthly Rate	Service Charge	USOC
ADSL High-Speed Service Provider Interface Minimum Contract Period: 1 year	\$2,250.00	\$1,000.00	ADSL1
2 years	\$1,950.00	\$1,000.00	ADSL2
3 years	\$1,750.00	\$1,000.00	ADSL3
ADSL Loop Administration & Support, each ADSL Access	\$5.05	\$126.80	ADSLS
ADSL Access, each	\$70.00	\$50.00	ADSLA

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N 6. ASYMMETRIC DIGITAL SUBSCRIBER LINE (ADSL) ACCESS SERVICE (CONT'D)

6.03 Rates and Charges (Cont'd)

ADSL Associated with Business and Centrex Service Voice Lines	Monthly Rate	Service Charge	USOC
ADSL High-Speed Service Provider Interface (see NOTE) Minimum Contract Period: 1 year	\$3,400.00	\$2,000.00	ADSL4
2 years	\$3,100.00	\$2,000.00	ADSL5
3 years	\$2,800.00	\$2,000.00	ADSL6
ADSL Loop Administration & support, each ADSL Access	\$5.05	\$126.80	ADSLS
ADSL Access, each	\$105.00	\$50.00	ADSLB

NOTE: The ADSL High-Speed Service Provider Interface associated with Business and Centrex Service Lines may also be used to terminate individual ADSL accesses associated with Residential lines.

DIGITAL NETWORK SERVICES

7. DIGITAL NETWORK ACCESS SERVICES

7.01 General

- a) Digital Network Access (DNA) Service is furnished where facilities are available for the digital transmission of information at speeds of 44.736 Mbps, 1.544 Mbps and less than 1.544 Mbps from the customer's premises to the Central Office.
- b) There are three types of DNA Service connections. The service consists of three types:
- 1) Type 1 which provides DNA Service at speeds of 2.4, 4.8, 9.6, 19.2, 56.0 Kbps
 - 2) Type 2 which provides DNA Service at speeds of 1.544 Mbps and,
 - 3) Type 3 which provides DNA Service at 44.736 Mbps.

7.02 Description

- a) Type 1 DNA (DS-0) is comprised of two components:
- 1) Access
Provides the appropriate digital facilities to connect station equipment to the Central Office.
 - 2) Link
Provides the Central Office equipment required to connect an access to network service at the Central Office. The link is to be billed when the Company's facilities are used.
- b) Type 2 DNA (DS-1) is comprised of four components:
- 1) Access
Provides the appropriate digital facilities to connect station equipment to the serving Central Office. Central Offices in the Company's territory are categorized according to bands depicting serving area. Bands are as follows:
Band 0 - no locations in the Company's area
Band 1 - no locations in the Company's area
Band 2 - no locations in the Company's area
Band 3 - Haileybury, Hearst, Iroquois Falls, Kapuskasing, Kirkland Lake, New Liskeard, Smooth Rock Falls, South Porcupine and Timmins Exchanges
Band 4 - all other locations.
 - 2) Link
Provides the Central Office equipment required to connect an access to network service at the Central Office and connects an access to an access.

DIGITAL NETWORK SERVICES

7. DIGITAL NETWORK ACCESS SERVICES (CONT'D)

7.02 Description (Cont'd).

- 3) Channelizing Feature
Enables a Type 2 DNA Access (DS-1) to be connected to Type 1 DNA channels.
 - 4) Station
Multiplex or terminal equipment at the customer's premises up to the demarcation point. The customer is responsible for providing station equipment, but may obtain Channel Service Unit (CSU)/Data Service Unit (DSU) from the Company.
- c) Type 3 DNA (DS-3) is comprised of three components:
- 1) Access
Provides the appropriate digital facilities to connect station equipment to the serving Central Office. Central Offices in the Company's territory are categorized according to bands depicting serving area. Bands are as follows:
Band 1 - no location in the Company's area
Band 2 - no location in the Company's area
Band 3 - Haileybury, Hearst, Iroquois Falls, Kapuskasing, Kirkland Lake, New Liskeard, Smooth Rock Falls, South Porcupine and Timmins Exchanges
Band 4 - all other locations.
 - 2) Link
Provides the Central Office equipment required to connect: A Type 3 DNA access to network service at the Central Office and a Type 3 DNA access to an access.
 - 3) Channelizing Feature
Enables a Type 3 DNA access to be connected to Type 2 DNA channels.

7.03 Condition

- a) The DSU may be provided by the customer or the unit may be provided by the Company under the terms and conditions provided in Section N850.
- b) Only one Link charge applies per Central Office per circuit.

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7. DIGITAL NETWORK ACCESS SERVICES (CONT'D)7.03 Condition (Cont'd)

- c) A service charge applies to change the operating speed of a Digital Network Access whenever the transmission speed is less than 1.544 Mbps. The channelization service charge applies to the service charges associated with changes to the NTL Private Plan Service Extension Feature.
- d) The service charge for the access portion also applies whenever an existing Digital Network Access is reconfigured to accommodate a change in terminating equipment (MTU, Multiplexing Terminating Unit and DSU, Digital Switching Unit).
- e) For the provision of Type 2 DNA and Type 3 DNA Access, Central Offices in the Company's territory is categorized according to bands depicting serving areas. Band 1 and 2 are not applicable within Northern's territory.
- f) A Channelizing Feature charge applies whenever a Type 2 DNA Access or Channel is connected to Type 1 DNA Access Channels, or when a Type 3 DNA Access or Channel is connected to Type 2 DNA Channels. The charge is in addition to the Link charge. The use of this feature results in a service charge to activate and interconnect unused Type 1 DNA capacity within a Type 2 DNA Access or Channel, or Type 2 DNA capacity within a Type 3 DNA Access or Channel.
- g) Any utility services, which use Type 2 DNA Access, can subscribe to the Channelizing Feature of Type 3 DNA Access but these accesses must be in a separate Type 3 DNA Access than other competitive applications. Any discounts are also treated separately.

Definition: Utility services are non-competitive access services which can only be offered by the Company.
- h) Type 2 and 3 DNA Access is provided on a monthly rental or 1,2,3, 4 or 5 year contract basis.
- i) Central Office Type 3 DNA Channelizing Feature is available only on a monthly rental basis.
- j) Type 2 DNA or Type 3 DNA customers located in non-serving areas (i.e. Band 4) pay the rates of Band 3, in addition to the expense incurred or Special Assembly rates.
- k) The rates for "first" and "additional" Type 2 DNA or Type 3 DNA Access apply when the Type 3 DNA Accesses originate from the same customer premises.

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7. DIGITAL NETWORK ACCESS SERVICES (CONT'D)

7.03 Condition (Cont'd).

- l) Termination charges will be reduced or waived if the customer recontracts for another dedicated access service within the Company's operating territory.
- m) Termination charges apply if the service is terminated prior to the end of the contract.
- n) Termination charges on the original contract will be waived, if the committed revenues under the new contract(s) are equal to or greater than those remaining under the original contract(s).
- o) The waiver of termination charges will apply if the Contracted Type 2 DNA Access:
 - 1) Is reconfigured between one of NTL Private Route/NTL Private Stream, and/or NTL Frame Relay; or
 - 2) Is moved to another address within the installation order interval for the Company.
- p) Where suitable facilities do not exist, construction charges may apply for access arrangements.

7.04 Rates and Charges

- a) ... The following rates and charges apply for the appropriate DNA Access and the associated components.
- b) DNA Access comprises of four bands
 - Band 1 - no locations in the Company's serving territory
 - Band 2 - no locations in the Company's serving territory
 - Band 3 - Haileybury, Hearst, Iroquois Falls, Kapuskasing, Kirkland Lake, New Liskeard, Smooth Rock Falls, South Porcupine and Timmins Exchanges.
 - Band 4 - all other locations

C

DIGITAL NETWORK SERVICES

7. DIGITAL NETWORK ACCESS SERVICES (CONT'D)

7.04 Rates and Charges (Cont'd)

Digital Network Access-Monthly basis

	MRC	S/C	USOC
Type 1 DNA	\$66.00	\$300.00 (see Note 2)	XJA8Z
Change of operating Speed	N/A	\$150.00	XJB8Z
Type 2 DNA		\$1,400.00 (see Note 2)	
Band 1			
Initial 4	\$420.00		XJCT1
Over 4	\$420.00		XJDT1
Max each 28	\$8,400.00		XJET1
Band 2		\$1,400.00 (see Note 2)	
Initial 4	\$510.00		XJCT2
Over 4	\$510.00		XJDT2
Max each 28	\$10,200.00		XJET2
Band 3		\$1,400.00 (see Note 2)	
Initial 4	\$660.00 I		XJCT3
Over 4	\$600.00		XJDT3
Max each 28	\$12,000.00		XJET3
Band 4	(see Note 1)	\$1,400.00 (see Note 2)	See Note 1
Type 3 DNA		\$4,000.00 (see Note 3)	
Band 2			
Initial each	\$3,185.00		XMAT2
Add'l each	\$1,915.00		XMBT2
Band 3		\$4,000.00 (see Note 3)	
Initial each	\$3,540.00		XMAT3
Add'l each	\$2,125.00		XMBT3
Band 4	(see Note 1)	\$4,000.00 (see Note 3)	See Note 1

Note 1: Band 3 rates/USOC apply in addition to expenses incurred or a Special Assembly tariff.

Note 2: A distance limitation of 18,000 feet exists over copper facilities, where fiber facilities already exist, the Company, at its discretion, will make a determination of availability. A construction charge may be required where facilities are not available.

Note 3: Where fiber facilities already exist, the Company at its discretion will make a determination of availability. A construction charge may be required where facilities are not available.

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7. DIGITAL NETWORK ACCESS SERVICES (CONT'D)

7.04 Rates and Charges (Cont'd)

Digital Network Access is also available on a contract basis at the following rates and charges

Digital Network Access-Contract Basis

Monthly Rental per customer locations											
Type 2 DNA	1 Year		2 Years		3 Years		4 Years		5 Years		S/C
	MRC	USOC	MRC	USOC	MRC	USOC	MRC	USOC	MRC	USOC	
Band 0 Initial 4	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	\$220	XJRT4	\$700
Band 1 Initial 4	\$350	XJFT1	\$335	XJIT1	\$320	XJLT1	\$310	XJOT1	\$300	XJRT1	\$700
Over 4	\$205	XJGT1	\$195	XJJT1	\$180	XJMT1	\$170	XJPT1	\$150	XJST1	
Max each 28	\$4680	XJHT1	\$4460	XJKT1	\$4160	XJNT1	\$3960	XJQT1	\$3600	XJTT1	
Band 2 Initial 4	\$425	XJFT2	\$410	XJIT2	\$390	XJLT2	\$380	XJOT2	\$365	XJRT2	\$700
Over 4	\$245	XJGT2	\$235	XJJT2	\$220	XJMT2	\$205	XJPT2	\$185	XJST2	
Max each 28	\$5620	XJHT2	\$5400	XJKT2	\$5080	XJNT2	\$4800	XJQT2	\$4420	XJTT2	
Band 3 Initial 4	\$500	XJFT3	\$480	XJIT3	\$460	XJLT3	\$445	XJOT3	\$430	XJRT3	\$700
Over 4	\$290	XJGT3	\$275	XJJT3	\$260	XJMT3	\$240	XJPT3	\$215	XJST3	
Max each 28	\$6640	XJHT3	\$6320	XJKT3	\$6000	XJNT3	\$5620	XJQT3	\$5160	XJTT3	
Band 4	Band 3 rates plus any add'l expenses incurred or Special Assembly tariff rates										

Monthly Rental per customer locations											
Type 3 DNA	1 Year		2 Years		3 Years		4 Years		5 Years		S/C
	MRC	USOC	MRC	USOC	MRC	USOC	MRC	USOC	MRC	USOC	
Band 2 1 st Additional	\$2655	XMCT2	\$2565	XMET2	\$2475	XMGT2	\$2385	XMIT2	\$2250	XMKT2	\$2000
	\$1595	XMDT2	\$1540	XMFT2	\$1485	XMHT2	\$1430	XMJT2	\$1350	XMLT2	
Band 3 1 st Additional	\$2950	XMCT3	\$2850	XMET3	\$2750	XMGT3	\$2650	XMIT3	\$2500	XMKT3	\$2000
	\$1770	XMDT3	\$1710	XMFT3	\$1650	XMHT3	\$1590	XMJT3	\$1500	XMLT3	
Band 4	Band 3 rates plus any add'l expenses incurred or Special Assembly tariff rates										

DIGITAL NETWORK SERVICES

7. DIGITAL NETWORK ACCESS SERVICES (CONT'D)

7.05 Rates and Charges (Cont'd)

Link each	MRC	S/C	USOC
Type 1 DNA Access	\$66.00	N/A	XYA8W
Type 2 DNA Access	\$66.00	N/A	XYB8W
Type 3 DNA Access	\$100.00	N/A	XYC8W

Intraexchange channel each C	MRC	S/C	USOC
Type 1 DNA	\$20.00	N/A	XYD8W
Type 2 DNA	\$240.00	N/A	XYE8W
Type 3 DNA	\$1000.00	N/A	XYF8W

Station Equipment	MRC	S/C	USOC
Type 1 DNA data unit each	\$66.00	\$100.00	XYG8W
Type 2 DNA Channel service unit/Data service unit			
Single port each	\$110.00	\$100.00	XYH8W
Dual port each	\$150.00	\$100.00	XYI8W

Type 3 DNA	MRC	Channelizing Feature Minimum Contract Period											S/C
		1 Year		2 Year		3 Year		4 Year		5 Year			
		USOC	MRC	USOC	MRC	USOC	MRC	USOC	MRC	USOC	MRC	USOC	
Customer premise	\$1205	XPC8 W	\$100 5	XPD8 W	\$970	XPE8 W	\$935	XPF8 W	\$900	XPG8 W	\$850	XPH8 W	\$500* Note 4
Central Office	\$500	XPB8 W	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$500 * Note 4
Type 2 DNA per Central Office C	\$99	XPA8 W	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$125

***Note 4:** This Service Charge is for the initial application of the Channelizing Feature on a Type 3 DNA Access. To activate Type 2 DNA channels for subsequent applications on the same Type 3 DNA Access, the Service Charge is \$100 (USOC XPK8W) per Type 2 DNA, up to a maximum of \$500 per feature.

DIGITAL NETWORK SERVICES

Z Reserved for future use.

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Z Reserved for future use.

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Z Reserved for future use.

DIGITAL NETWORK SERVICES

N 9. NTL PRIVATE PLAN SERVICES

9.01 General

NTL Private Plan is a portfolio of dedicated integrated digital services designed to meet a wide variety of dedicated applications.

- a) A dedicated network is used privately by the customer typically for internal operations.
- b) An integrated network combines voice, data and image applications that can be transmitted simultaneously.
- c) A digital network facilitates the integration of voice, data and image applications.

9.02 NTL Private Plan consists of three distinct services:

- a) NTL Private Stream is designed to support channelized integrated network applications such as voice, data and video in 64 Kbps increments (Type 1 DNA). The service includes features like Service Extension and Compressed Voice. Service Extension provides the NTL Private Plan customer with flexibility.
- b) NTL Private Route Type 1 DNA is designed to support channelized integrated network applications such as voice, data and video in 64 Kbps increments (Type 1 DNA) using customer provided multiplexers (see Section N850). NTL Private Route DS-0 allows for local, inter-city and cross border applications. The service includes features like Service Extension.
- c) NTL Private Route Type 2 DNA is designed to support unchannelized integrated network applications such as voice, data and video in 1.544 Mbps (Type 2 or Type 3 DNA) increments, terminating on customer provided equipment (see Section N850). The service can be used for local and inter-city applications.

- 9.03 The Company determines the serving areas within which it will provide service. The service is provided at the Company's discretion within a serving area.

DIGITAL NETWORK SERVICES

N 9. NTL PRIVATE PLAN SERVICE (CONT'D)

9.04 NTL Private Stream Service

- a) NTL Private Stream service digitally transmits voice data and image information over digital channels. It operates at speeds in multiples of 64 Kbps.
- b) The service consists of five components as described below:
 - 1) Station Equipment provides an interface to the network at the individual circuit level and consists of the following equipment:
 - a) The MTE (Multiplexing Terminating Equipment) which processes input signals onto the Type 2 DNA access (see Item 7.02). It has the capacity of one Type 2 DNA access output channel and 64 input channels. The equipment may be located in the Company's Central Office or at the customer's premises.
 - b) The MTU (Multiplexing Terminating Unit) which processes input signals onto the DNA. It has the capacity for two input channels with operating speeds up to 64 Kbps (dual channel capacity). The MTU is located at the customer's premises and can be connected to other NTL Private Stream station equipment at the customer's premises.
 - c) The MTU Port is located on the MTE to which the MTU is connected. One MTU Port is required for each circuit terminating on the MTU.
 - d) Analogue or Digital Terminations are required for individual analogue or digital circuits that terminate on an MTE or MTU.
 - e) Circuit Conditioning Equipment may be required for analogue terminations. This equipment is required with two-wire termination or external echo cancellation.
 - f) The Low Bit Rate Voice (8/16 Kbps) Termination enables analogue or digital 64 Kbps voice circuits terminating on an MTE to be compressed to either 8 Kbps or 16 Kbps data streams.

DIGITAL NETWORK SERVICES

9. NTL PRIVATE PLAN SERVICE (CONT'D)

9.04 NTL Private Stream Service (Cont'd)

- 2) Access permits a channel to connect customer premises located Private Stream station equipment to the Central Office. The three types of Access include:
 - a) Type 2 DNA access which connects a customer premises located MTE to the Central Office
 - b) Any Type 1, 2 or 3 DNA Access which connects a customer premises located MTU or DSU to the Central Office.
 - c) Access via other local channels (see Section N260) which connect the customer premises to the Service Extension Feature in the Central Office.
- 3) The Channel which is the digital network facility between Central Offices. Interexchange channel charges apply in increments of Type 1 DNA Channels.

9.05 Terms and Conditions:

Multi point and multi-drop configurations are available for circuit terminating on NTL Private Stream Terminating Units. One location is considered the "master" location; all others are "slave" locations.

NTL Private Service may be connected to customer-provided equipment (see Section N850) or to Company provided terminal equipment located at the customer premises. Channel Capacity may be required to accommodate signalling and supervision.

9.06 Rates and Charges

The NTL Private Stream Service rates are offered in the Customer Volume Pricing Plan (CVPP). See Item 13. An additional MTU Port charge applies for each MTE in a multi point configuration on which a slave terminates.

DIGITAL NETWORK SERVICES

9. NTL PRIVATE PLAN SERVICE (CONT'D)

9.06 Rates and Charges (Cont'd)

NTL Private Stream Service	MRC (Note 1)	S/C	USOC
a) MTE Station Equipment each	\$990.00 I	\$1300.00	XUJ8W
MTU each	\$ 55.00 I	\$ 175.00	XUK8W
b) MTE Analogue Terminations			
i) 2/4 wire E&M Signalling (24,32 or 64 Kbps)	\$ 55.00 I	Note 2	XUL8W
ii) Conditioning Circuit each	\$ 10.00	Note 2	XUM8W
iii) Low Bit Rate Voice (8/16 Kbps) each (Note 3)	\$ 55.00 I	Note 2	XUN8W
c) MTE Digital Terminations			
i) Low Speed Port (RS232) each	\$ 55.00 I	Note 2	XUO8W
ii) Synchronous Ports (RS422 and V.35) each	\$ 55.00 I	Note 2	XUP8W
iii) DDS Computable Ports each	\$ 75.00	Note 2	XUQ8W
iv) a) High Speed Port (Type 2 DNA) each	\$412.50 I	N/A	XUR8W
1) Activation of each Type 1 DNA time slot	N/A	Note 2	N/A
b) Echo Cancellation (Type 2 DNA) each	\$412.50 I	N/A	XUS8W
1) Activation of each Type 1 DNA time slot	N/A	Note 2	N/A
v) MTU Ports (Note 5)	\$ 55.00 I	Note 2	XUT8W
d) MTU Digital Terminations	\$ 44.00 I		
i) Low Speed Ports (RS232) each		Note 2,4	XUU8W
Synchronous Ports (RS422 and V.35) each	\$ 30.00	Note 2,4	XUV8W

Note 1: Per circuit, per end

Note 2: See service charge chart (see Item 9.07)

Note 3: The 2/4 wire E&M Monthly rate also applies

Note 4: Service charge does not apply if installed at the same time as the MTU

Note 5: An additional charge of one MTU port applies for each MTE in the multi-point configuration to which a slave MTU is connected.

9.07 Service Charge Chart (see Note 2 above)

Service Charges apply for the following:

- a) installation of analogue and digital terminations
- b) changing port configuration
- c) changing channel grouping
- d) any other activity at the customer's premises or at the request of the customer not outlined above.

DIGITAL NETWORK SERVICES

9. NTL PRIVATE PLAN SERVICES (CONT'D)

9.07 Service Charges (Cont'd)

	Service Charge (Note 2)	USOC
Initial five activities	\$140.00	XUW8W
Additional activities	\$35.00	XUX8W

e) applies per customer request per location on the same date.

f) The Service Charge is waived when the Low Bit rate Voice Termination is installed at the same time as at 2/4-wire E&M Termination on the High Speed Port Termination.

9.08 NTL Private Route Service

General

NTL Private Route Service provides for the digital transmission of information at:

- a) 64 Kbps is available between the Central Offices of different Exchanges (interexchange) C
- b) 1.544 Mbps and 44.736 Mbps is available between two points in the same Exchange (intraexchange) or between the Central Offices of different Exchanges. C
C
- c) There are two types of NTL Private Route Service:
 - 1) intraexchange (local) provides service between points within an Exchange. C
 - 2) Interexchange provides service between designated Central Offices. C

9.09 Service Description

The NTL Private Route Service is comprised of four components described below:

DIGITAL NETWORK SERVICES

9. NTL PRIVATE PLAN SERVICE (CONT'D)

9.09 Service Description (Cont'd)

- 1) Station is the multiplexer or terminal equipment provided on the customer's side of the demarcation point. Extension of service beyond the demarcation point may require additional equipment or facilities.

The customer is responsible to provide the station equipment pursuant to the terms and conditions contained in Section N850 or the customer may rent the unit from the Company.

- 2) Access is the DNA tariff (see Item 7.) which provides the customer with a jack-ended Type 2 DNA interface and a digital local loop from the customer's premises to the Central Office.

- 3) Network Connection is the Central Office equipment that connects an access to:

- a) the interexchange portion of NTL Private Route Service or
- b) another service provided by the Company (i.e., local link).

- 4) Channel is the digital facility that interconnects accesses between Central Offices. Intraexchange channels connect accesses in the same Exchange. Interexchange channels connect accesses in different Exchanges.

9.10 Terms and Conditions

- a) The Company determines the serving areas within which it will provide service. The service is provided at the Company's discretion within a serving area.
- b) Multi-point and multi-drop configurations are available as outlined in NTL Private Plan Service Extension Access Service (Item 12.).
- c) NTL Private Route Service may be connected to either customer or Company provided terminal equipment located at the customer's premises. (for terms and condition see Section N850).

DIGITAL NETWORK SERVICES

9. NTL PRIVATE PLAN SERVICE (Cont'd)

9.10 Terms and Conditions (Cont'd)

d). Access via other services from the customer's premises to the Service Extension Feature located in the Central Office may be provided further to NTL Private Plan Service Extension Features in Item 11.

e). Service is provided on a monthly and/or contract recurring charge basis. It may also be offered under a Customer Volume Pricing Plan (See Item 13).

9.11 Rates and Charges

The following rates and charges apply:

Station	see Item 9.06
Access	see Item 7.04
Network Connection (intraexchange link)	see Item 7.04
Channel (intraexchange link)	see Item 7.04

	MRC	S/C	USOC
Multi-point feature per access	\$24.20	N/A	XUH8W
Interexchange Access Extension Channel each mile	\$12.00	N/A	XUI8W

C
C
C

DIGITAL NETWORK SERVICES10. NTL PRIVATE PLAN INTER-OFFICE DIGITAL CHANNELS

10.01 General

Inter-Office Digital Channels are furnished between Central Offices of the Company.

10.02 Definitions

"Cross-section" refers to the Type 1, Type 2 and Type 3 DNA channels furnished between the Company's Central Offices.

"Interexchange Channels" refers to the digital facilities required to connect Central Offices of different Exchanges.

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C

10.03 Terms and Conditions

- a) The Company determines the serving areas within which it will provide service. The service is provided at the Company's discretion within a serving area.
- b) Digital channels may be connected to other Company services or with the services and/or facilities of other carriers.
- c) Inter-office digital channels are available under a Customer Volume Pricing Plan (CVPP) as specified in Item 13. Discounts are based on the term and the minimum monthly billing commitment. Inter-office digital channels are also available on a one-month non-contracted basis.
- d) Channel distance is calculated as defined in Item 10.04.
- e) Total distance charges per interexchange channel are calculated by multiplying the mileage by the charge per mile for the appropriate distance band and adding the base charge for that band.

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10.04 Rates and Charges

The following monthly recurring rates and service charges apply between:

- a) Central Offices of adjoining Exchanges
- b) A Central Office of the Company and point of connection with an independent telephone company.

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DIGITAL NETWORK SERVICES

10. NTL Private Plan Inter-Office Digital Channels (CONT'D)

10.04 Rates and Charges (Cont'd)

1) Interexchange Type 1 DNA Channels

Distance (miles)	Base Charge MRC		USOC	Charge per Mile MRC		USOC	Service Charge (see Note 1)
	Minimum	Maximum		Minimum	Maximum		
0-25	#	\$ 0.00	XQD8W	#	\$ 13.20	XQE8W	\$ 80.00
26-50	#	\$ 165.00	XQF8W	#	\$ 6.60	XQG8W	\$ 80.00
51-100	#	\$ 264.00	XQH8W	#	\$ 4.62	XQI8W	\$ 80.00
101-200	#	\$ 451.00	XQJ8W	#	\$ 2.75	XQK8W	\$ 80.00
201-500	#	\$ 726.00	XQL8W	#	\$ 1.37	XQM8W	\$ 80.00
501-1000	#	\$ 946.00	XQN8W	#	\$.93	XQO8W	\$ 80.00
Over 1000	#	\$1606.00	XQP8W	#	\$.27	XQQ8W	\$ 80.00

2) Interexchange Type 2 DNA Channels at 1.544 Mbps.

Distance (miles)	Base Charge MRC		USOC	Charge per Mile MRC		USOC	Service Charge (see Note 1)
	Minimum	Maximum		Minimum	Maximum		
0-25	#	\$ 0.00	XQR8W	#	\$ 158.40	XQS8W	\$ 1100.00
26-50	#	\$1980.00	XQT8W	#	\$ 79.20	XQU8W	\$ 1100.00
51-100	#	\$3168.00	XQV8W	#	\$ 55.44	XQW8W	\$ 1100.00
101-200	#	\$5412.00	XQX8W	#	\$ 33.00	XQY8W	\$ 1100.00
201-500	#	\$8712.00	XQZ8W	#	\$ 16.44	XSA8W	\$ 1100.00
501-1000	#	\$11352.00	XSB8W	#	\$ 11.16	XSC8W	\$ 1100.00
Over 1000	#	\$19272.00	XSD8W	#	\$ 3.24	XSE8W	\$ 1100.00

3) Interexchange Type 2 DNA Channels at 6.17 Mbps.

Distance (miles)	Base Charge MRC		USOC	Charge per Mile MRC		USOC	Service Charge (see Note 1)
	Minimum	Maximum		Minimum	Maximum		
0-25	#	\$ 0.00	XSF8W	#	\$ 462.00	XSG8W	\$4400.00
26-50	#	\$ 5775.00	XSH8W	#	\$ 231.00	XSI8W	\$4400.00
51-100	#	\$ 9240.00	XSJ8W	#	\$ 161.70	XSK8W	\$4400.00
101-200	#	\$15785.00	XSL8W	#	\$ 96.25	XSM8W	\$4400.00
201-500	#	\$25410.00	XSN8W	#	\$ 47.95	XSO8W	\$4400.00
501-1000	#	\$33110.00	XSP8W	#	\$ 32.55	XSQ8W	\$4400.00
Over 1000	#	\$56210.00	XSR8W	#	\$ 9.45	XSS8W	\$4400.00

Note 1: The service charge applies to the discrete channels, not to the occupied capacity used for rating purposes.

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DIGITAL NETWORK SERVICES

10. NTL PRIVATE PLAN INTER-OFFICE DIGITAL CHANNELS (CONT'D)

10.04 Rates and Charges (Cont'd)

1) Interexchange Type 3 DNA channels

Distance (miles)	Base Charge MRC		USOC	Charge per Mile MRC		USOC	Service Charge (Note 1)
	Minimum	Maximum		Minimum	Maximum		
0-25	#	\$ 0.00	XST8W	#	\$1425.60	XSU8W	\$ 3000.00
26-50	#	\$ 17820.00	XSV8W	#	\$ 712.80	XSW8W	\$ 3000.00
51-100	#	\$ 28512.00	XSX8W	#	\$ 498.96	XSX8W	\$ 3000.00
101-200	#	\$ 48708.00	XSZ8W	#	\$ 297.00	XUA8W	\$ 3000.00
201-500	#	\$ 78408.00	XUB8W	#	\$ 147.96	XUC8W	\$3000.00
501-1000	#	\$102168.00	XUD8W	#	\$ 100.44	XUE8W	\$3000.00
Over 1000	#	\$173448.00	XUF8W	#	\$ 29.16	XUG8W	\$3000.00

Note 1: The Service Charge applies to the discrete channels, not to the occupied capacity used for rating purposes.

11. NTL Private Plan Service Extension Features

11.01 General

NTL Private Plan Service Extension Features are provided at suitably equipped Central Offices to connect NTL Private Plan (See Item 9.) equipment with a Digital Network Access (See Item 7.) or with other services provided by the Company. The connections consist of a Basic Service Extension Feature.

11.02 Definitions

"Basic Service Extension Feature (BSEF)" is provided at Central Offices to enable shared access to multiplexing and Type 2 DNA channelizing equipment. It provides 64 Kbps Pulse Code Modulation (PCM) voice encoding, Dataphone Digital Service (DDS) compatible data encoding in addition to Drop-and-Insert capabilities. The standard DDS format also allows Sub-Rate Digital Multiplexing (SRDM) of 2.4 Kbps, 4.8 Kbps and 9.6 Kbps circuits onto a single Type 1 DNA interexchange channel.

"Drop-and-Insert" provides the ability to demultiplex (or drop) lower speed channels from a Type 1 DNA line and multiplex (or insert) sub-rated lines onto the same line.

"Circuit Termination" connects the circuit to the NTL Private Plan Service Extension Feature.

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DIGITAL NETWORK SERVICES

11. NTL PRIVATE PLAN SERVICE EXTENSION FEATURES (Cont'd)

11.03 Terms and Conditions

- a) The Company shall determine the Central Office locations where Service Extension Features will be provided.
- b) NTL Private Plan Service Extension Features shall be provided subject to the availability of suitable equipment and facilities.
- c) For NTL Private Plan Service Extension Features, the customer shall pay a circuit termination charge in addition to the charge for the service extension feature.
- d) NTL Private Plan Service Extension Features, at the distant end, may terminate on customer or Company provided multiplex equipment located on the customer's premises, or on service extension equipment provided by the Company and located in the distant end Central Office.
- e) Sub-Rate Digital Multiplexing of similar and mixed sub-rate speeds is provided subject to the availability of suitable equipment and facilities.
- f) Terms and conditions stated in NTL Private Plan Services (Item 9.) may apply.

11.04 Rates and Charges

The customer shall pay the following rates and charges for each service item required for NTL Private Plan Service Extension Features, such rates and charges being in addition to other rates and charges that may be applicable.

Basic Service Extension Feature

	MRC	S/C	USOC
1) Basic Service Extension Feature, each Central Office, each customer	\$200.00	N/A	XQA8W
2) Circuit Termination, each circuit, each Central Office	\$ 78.65 I	\$ 80.00	XQB8W
3) Drop-and-Insert Feature, each Type 1 DNA, each Central Office	\$121.00 I	\$100.00	XQC8W

DIGITAL NETWORK SERVICES

12. NTL PRIVATE PLAN SERVICE EXTENSION ACCESS SERVICE

12.01 General

NTL Private Plan Service Extension Access Service provides for a local extension connecting a customer premise to NTL Private Plan Service Extension Features(See Item 11.)

12.02 Definitions

"Data Serving Unit (DSU)" means a device which provides the digital interface between customer station equipment and the Access. The DSU is compatible with Dataphone Digital Service (DDS).

"Interexchange Access Extension Channel" provides the digital facility between the customer's Central Office location and the NTL Private Plan Service Extension Feature or other designated network services located in the Central Office centre in an adjoining Exchange or NTL Private Plan Serving Area.

"Link" is the Central Office equipment which connects the customer's DSU through an Access, to an NTL Private Plan Service Extension Feature.

12.03 Terms and Conditions

- a) NTL Private Plan Service Extension Access Service is provided subject to the availability of suitable facilities and equipment.
- b) The Company shall determine the serving areas within which it will provide service.
- c) When it is necessary for the Company to install special equipment or to incur an unusual expense to establish NTL Private Plan Service Extension Access Service, the customer shall pay an additional charge based on the equipment installed or the unusual expense incurred.
- d) A DSU is required for NTL Private Plan Service Extension Access Service and must conform to the Dataphone Digital Service (DDS) transmission standard. The DSU may be provided by the Company or the customer. (See Section N850).

DIGITAL NETWORK SERVICES

12. NTL PRIVATE PLAN SERVICE EXTENSION ACCESS SERVICE (CONT'D)

12.03 Terms and Conditions (Cont'd)

- e) NTL Private Plan Service Extension Access Service may use either Company or customer provided station equipment located at the customer's premises. (See Section N850).
- f) Multi-point or multi-drop configurations are available using DSUs. An additional charge of one multi-point feature, as specified in below, applies for each Digital Network Access in the multi-point configuration.
- g) Terms and Conditions stated in NTL Private Plan Service Extension Features shall apply in addition to this tariff item, if applicable.

12.04 Rates and Charges

The customer shall pay the following rates and charges for NTL Private Plan Service Extension Access Service, such rates and charges being in addition to other rates and charges that may be applicable.

Access	See Item 7.04
Link	See Item 7.04
Multi-point Feature Per Access	See Item 9.11
Interexchange Access Extension Channel Each mile	See Item 9.11

C

DIGITAL NETWORK SERVICES

N 13. CUSTOMER VOLUME PRICING PLAN (CVPP)

13.01 General

The Customer Volume Pricing Plan (CVPP) allows a customer to contract for a Minimum Monthly Billing Commitment (MMBC) for their services in return for a discount based on the term and the amount of the commitment.

a) Definitions

"Cumulative Usage Billing" is the then current total billing for usage of the service with a start date coincident with the cancellation of NTL Private Stream or Private Route contract and the signing of a contract for the reduction of termination charges.

13.02 Terms and Conditions

- a) Services may be added to, or subtracted from the customer's network at any time within the contract term without penalty, provided that the MMBC is maintained.
- b) The actual billing in each month will be the sum of all the eligible charges less the appropriate discount. If the sum of all the eligible charges falls below the MMBC, the actual billing will be the MMBC less the appropriate discount.
- c) The customer may commit to a higher MMBC during the contract term and obtain the increased CVPP discount for the remainder of the contract.
- d) Should the Company alter the rates or policies for the eligible services such that the sum of all the customer's eligible charges fall below the contracted MMBC, the customer may decrease the MMBC to the next lower MMBC level without liability, with the same contract term.
- e) Termination of the CVPP contract for circumstances other than those in f) prior to the expiry of the contract term will result in termination charges equal to one half of the discounted MMBC for the unexpired portion of the contract payable in a single payment at the termination of the contract.

DIGITAL NETWORK SERVICES

13. CUSTOMER VOLUME PRICING PLAN (CVPP) (CONT'D)

13.02 Terms and Conditions (Cont'd)

- f) For the purposes of termination charges for contracted NTL Private Stream or NTL Private Route service, committed revenues are the Minimum Monthly Billing Commitment less the applicable discount for the remaining portion of the contract period.

Termination charges equal to one half of the remaining committed revenues, will be reduced or waived as 1), 2) or 3) following if the customer:

- i) Revises the current contract for NTL Private Stream or NTL Private Route Service (See Items 9.04 and 9.08).
 - ii) Replaces a contracted NTL Private Stream or NTL Private Route service in whole or in part with a contract for another NTL interexchange service, if appropriate, under condition 3) below.
- 1) If the committed revenues under the contract(s) are equal to or greater than those remaining under the original contract, the termination charges for the original contract will be waived.
 - 2) If the committed revenues under the new contract(s) are less than those remaining under the original contract, the termination charges for the original contract will be reduced by half the committed revenues under the new contract.
 - 3) If the customer subscribes to NTL Frame Relay Service (See Item 8.) the cumulative usage billing of the service will be used to reduce all or part of the termination charges for the original contract.

The tracking of the cumulative usage billing begins with the cancellation of the original NTL Private Stream or NTL Private Route contract and the signing of contract for reduction of termination charges associated with cumulative usage billing for NTL Private Stream services.

DIGITAL NETWORK SERVICES

13. CUSTOMER VOLUME PRICING PLAN (CVPP) (CONT'D)

13.02 Terms and Conditions (Cont'd)

The tracking of the cumulative usage billing ends:

- a) when the customer no longer subscribes to the new service NTL Frame Relay;
- b) when the remaining committed revenues under the original contract are met;
- c) with a time period equal to the larger of three years or the original contract period for NTL Private Stream or NTL Private Route.

At the end of the tracking period, termination charges for the original contract, payable to the Company in a single lump payment, will be reduced by half the cumulative usage billing of the new service(s). The requirements of 3) continue to apply if the customer no longer subscribes to NTL Private Stream or NTL Private Route service.

C 13.03 Rates and Charges

Services eligible for discounts under a CVPP contract are the monthly recurring charges associated with:

- a) NTL Private Stream Service, Item 9.04, with exception of Item 2.
- b) NTL Private Route Service, Item 9.09, with the exception of Access, Item 2.
- c) NTL Private Plan Service Extension Features, Item 11.
- d) NTL Private Plan Inter-office Digital Channels, Item 10.
- e) ATM Service Item 14.

DISCOUNT SCHEDULE					
	DISCOUNTS				
MMBC	1 Year	2 Years	3 Years	4 Years	5 Years
\$ 500.00	5%	7%	9%	11%	13%
3,000.00	7%	9%	11%	13%	15%
6,000.00	9%	11%	13%	15%	17%
10,000.00	11%	13%	15%	17%	19%
16,000.00	13%	15%	17%	19%	21%
33,000.00	15%	17%	19%	21%	23%
50,000.00	16%	18%	20%	22%	24%
70,000.00	17%	19%	21%	23%	25%
100,000.00	18%	20%	22%	24%	26%
135,000.00	19%	21%	23%	25%	27%
200,000.00	20%	22%	24%	26%	28%
350,000.00	21%	23%	25%	27%	29%
650,000.00	22%	24%	26%	28%	30%

DIGITAL NETWORK SERVICES

14. ASYNCHRONOUS TRANSFER MODE (ATM) SERVICE

14.01 General

The ATM service provides for the digital transmission of voice, data and image information, using a multi-protocol based format. The service supports the transmission of data at rates between 56Kbs and 45Mbs.

14.02 The ATM Service offering consists of access, network ports, and committed bit rate components.

- a) Access - provides the customer with a digital access facility to connect the customer's station equipment to the ATM network. Digital Network Access (item 7) applies to the access component of the service.
- b) Network Ports - Network connections are available at the various transmission speeds identified in Table 1 and provide for available bit rate subscriptions. ATM and frame protocols are supported.
- c) Committed Bit Rates - Additional levels of guaranteed transmission rate can be purchased, as set out in Table 2 and minimum subscriptions may be required for constant bit rate applications.

14.03 Transmission Rate - All network port offerings provide for a minimum bit rate of 16KBPS. Maximum transmission rate is limited to the network port rate subscribed to in Table 1.

14.04 Terms and Conditions

The Company determines the serving areas within which it will provide service. The service is provided at the Company's discretion within a serving area where suitable facilities are available. Where suitable facilities do not exist, construction charges may apply at the Company's discretion.

DIGITAL NETWORK SERVICESN 14. ASYNCHRONOUS TRANSFER MODE (ATM) SERVICE (CONT'D)

14.04 Rates and Charges

Table 1 Network Ports - Available Bit Rate (ABR)

Rate	MRC	S/C	USOC
56 KBPS	\$ 225.00	\$ 350.00	XAA8W
128 KBPS	\$ 350.00	\$ 550.00	XAB8W
384 KBPS	\$ 700.00	\$ 550.00	XAC8W
768 KBPS	\$ 1,200.00	\$ 550.00	XAD8W
1.54 MBPS	\$ 2,000.00	\$ 550.00	XAE8W
3.00 MBPS	\$ 3,000.00	\$ 550.00	XAF8W
10.00 MBPS	\$ 5,000.00	\$1,275.00	XAG8W
45.00 MBPS (DS3)	\$18,000.00	\$1,850.00	XAH8W

Table 2 Committed Bit Rates (CBR)

KBPS	RATE	USOC
32	\$ 42.70	XAI8W
48	\$ 49.70	XAJ8W
64	\$ 56.70	XAK8W
128	\$ 99.40	XAL8W
192	\$156.10	XAN8W
256	\$212.80	XAO8W
320	\$269.50	XAP8W
384	\$326.20	XAQ8W
448	\$382.90	XAR8W
512	\$439.60	XAS8W
576	\$496.30	XAU8W
640	\$553.00	XAV8W
704	\$609.70	XAW8W
768	\$666.40	XAX8W
832	\$723.10	XAY8W
896	\$779.80	XWA8W
960	\$836.50	XWB8W
1,024	\$893.20	XWC8W

Note: CBR rates above 1,024Kbps will be charged at an additional \$56.70 in increments of 64Kbps.

Item 13. Customer Volume Pricing Plan terms and conditions apply.

DIGITAL NETWORK SERVICES

15. INTEGRATED SERVICES DIGITAL NETWORK 23 B+D (ISDN 23 B+D) SERVICE

Note: The business service elements of this item are forborne from regulation in certain Exchanges, as identified in Section 100, Item 4.02. C

15.01 General

ISDN 23 B+D 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.

The Company determines the Exchanges where the ISDN 23 B+D services will be provided and this is subject to the availability of suitable facilities. C

- (a) ISDN 23 B + D is provided for the digital transmission of information at 1.544 Mbps between the Company's serving Wire Centre and ISDN-compatible terminal equipment located at the customer's premises or other service point. ISDN 23 B+D service is based on the Integrated Services Digital Network (ISDN) Primary Rate Interface Standard as developed by the International Telegraph and Telephone Consultative Committee (CCITT). C
C
- (b) An ISDN 23 B+D System Group (MSG) is defined as a number of B-channels in one or more DS-1 accesses, under the control of a single D-channel or of multiple D-channels, served by the same Central Office switch and operating together as one large system terminating at the same address with a minimum of one working telephone number and billed to a single billing telephone number. C
- (c) The Company determines the Exchanges where ISDN 23 B+D service will be provided. The service is provided at the Company's discretion within an Exchange, subject to the availability of suitable facilities. Multi-point and multi-drop configurations are not available. C
C
- (d) ISDN 23 B+D service is offered on a non-contracted monthly basis and on a one, two, three, four or five-year minimum contract period (MCP) basis.
- (e) ISDN 23 B+D service may be connected to customer-provided or Company-provided terminal equipment, subject to the terms and conditions of Sections N850. It may also be connected to services as specified in 15.02(4).

DIGITAL NETWORK SERVICES

15. INTEGRATED SERVICES DIGITAL NETWORK 23 B+D (ISDN 23 B+D) SERVICE
(Cont'd) t¹15.01 General (Cont'd)

- (f) Resale and sharing of ISDN 23 B+D service is not permitted.
- (g) The contract may be transferred and reconfigured conditional upon:
 - 1) the name of the contract holders are the same or;
 - 2) the name of the customer on the contract is an affiliate of the customer on the contract.
- (h) Further to g) above, should the names on each of the contracts be different or, one is not financially liable for the other, termination charges will apply. t¹

t¹ - Transferred from Page 43.

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15. INTEGRATED SERVICES DIGITAL NETWORK 23 B+D (ISDN 23 B+D) SERVICE

- (i) Termination charges apply as specified in Section N80, Item 20 of the Terms of Service. However, customers may terminate their existing contract so long as the customer contracts for an alternative access arrangement using either DEA, or interconnecting circuits with trunk-side access, where permitted. The charges under the new contract must exceed or equal those remaining under the customer's existing contract for the termination charges to be completely waived. 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 would be one-half of the difference between the charges remaining on the original contract and the charges of the new contract.
- (j) For all additional service(s) request a minimum of six months must remain on the current contract. If the remaining duration is less than six months a new contract must be negotiated and signed prior to the implementation of the additional service(s) requested.

15.02 Service Components, Rates and Charges

The service consists of the following components at the rates and charges specified:

(1) Access

- (a) This provides the customer with a jack-ended digital local loop from the customer's premises or other service point to the serving Wire Centre within an Exchange. When a DS-1 access is ordered primarily for ISDN 23 B+D service, the initial access is provided as a minimum 23B+D configuration. Additional accesses are available in either 23B+D or 24B configurations. As an option, the customer may use some of these B-channels (DS-0 time slots) to connect to data services such as Frame Relay and Digital Private Line Solutions. In such cases, the rates and charges for DS-1 Links and Channelizing Features specified in Section N900 apply in addition to the rates and charges for the access.
- (b) The Company will normally provide service to a point at a location mutually acceptable to both the customer and the Company. Provision of service at other points within the same building may require special facilities or the establishment of a separate group of access facilities.
- (c) Rates and Charges

	MRC	S/C See Note 2
DS-1 Access, each, at each service point (see Note 1)	See Digital Network Services N900	See Digital Network Services N900

Note 1: Both DS-1 and DS-3 accesses are available, however, DS-3 is only offered with Central Office based DS-1 channelization. For the purpose of determining contracted DS-1 rates, ISDN 23 B+D DS-1 or DS-3 accesses may be combined with DS-1 or DS-3 accesses used for other services in accordance with the provisions of Section N900 Item 7.03 (e).

Note 2: Any moves or rearrangements of access terminations within a building will be charged on the basis of the expenses incurred by the Company.

DIGITAL NETWORK SERVICES

15. INTEGRATED SERVICES DIGITAL NETWORK 23 B+D (ISDN 23 B+D) SERVICE

15.02 Service Components, Rates and Charges (Cont'd)

(2) ISDN Digital Trunk Controller ISDN (DTCI) Port

- (a) The ISDN DTCI Port provides the connecting port, call control and signalling between a DS-1 access or equivalent and the switch. One termination is required for each DS-1 access or equivalent. The port is available on a monthly basis and under the terms of a Minimum Contract Period (MCP). In the latter case, the MCP must be of the same duration as the MCP for the associated access.
- (b) Rates and Charges in the Exchanges of Cobalt, Earlington, Haileybury, Latchford and New Liskeard. C

	MRC	S/C
ISDN DTCI Port, each DS-1 Access Monthly option	\$336.00	-
MCP Options		
1 year	\$170.00	-
2 years	\$160.00	-
3 years	\$140.00	-
4 years	\$130.00	-
5 years	\$120.00	-

(c) Rates and Charges for the other Exchanges C

	MRC	S/C
ISDN DTCI Port, each DS-1 Access Monthly option	\$336.00	-
MCP Options		
1 year	\$240.00	-
2 years	\$230.00	-
3 years	\$220.00	-
4 years	\$210.00	-
5 years	\$197.00	-

(3) D-Channels

(a) Rates and Charges

	MRC	S/C
Initial Order:		
Initial D-channel Installation (see Note 3)	-	\$830.00(i)
Additional Active D-channel Installation	-	\$320.00(ii)(iii)
Back-up D-channel (see Note 4)	\$27.50	\$320.00(ii)(iii)
Subsequent Order(s):		
First Additional Active D-channel Installation		\$320.00(ii)(iii)
Other Additional Active D-channel Installation		\$320.00(ii)(iii)
Back-up D-channel (see Note 4)	\$27.50	\$320.00(ii)(iii)

See page 45a for (i) (ii) and (iii).

DIGITAL NETWORK SERVICES

15. INTEGRATED SERVICES DIGITAL NETWORK 23 B+D (ISDN 23 B+D) SERVICE

15.02 Service Components, Rates and Charges (Cont'd)

(3) D-Channels (Cont'd)

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- (i) This service charge does not apply if the ISDN DTCI Port is provided under the terms of a 3, 4 or 5 year MCP.
- (ii) See Translation Changes, paragraph (5) on page 47.
- (iii) This service charge does not apply if the ISDN DTCI Port is provided under the terms of any of the MCP options.

Note 3: Initial installation service charge includes two consecutive days (normal work hours) of testing, rearrangements and required translations assistance time following the completion date, if required. Thereafter, time and charges apply based on the expenses incurred by the Company.

Note 4: Back-up D-channels are only available in a single D-channel controlled, multi-DS-1 configuration.

DIGITAL NETWORK SERVICES

15. INTEGRATED SERVICES DIGITAL NETWORK 23 B+D (ISDN 23 B+D) SERVICE

15.02 Service Components, Rates and Charges (Cont'd)

(4) Public Switched Telephone Network (PSTN)Connectivity and Links to Other Services

(a) These provide for the Central Office equipment required to connect access B-channels to local Exchange or interexchange services. The PSTN Connectivities are available on a monthly basis and under the terms of a Minimum Contract Period (MCP). In the latter case, the MCP must be of the same duration as the MCP for the associated DTCI Port and coterminous with it. The rates and charges for PSTN Connectivities and Links to Other Services are applied as appropriate to the customer's individual network requirements. They are in addition to the rates and charges for the access and DTCI components and other existing tariff rates and charges, including other link charges, associated with the connecting services.

(b) The maximum number of PSTN connectivities, for which a customer will be charged, regardless of how they are configured, will be limited to the total number of B-channels in the ISDN 23 B+D System Group (MSG). Similarly, the chargeable number of links to each service will be subject to the same maximum.

(c) Rates and Charges in the Exchanges of Cobalt, Earlton, Haileybury, Latchford and New Liskeard (see Note 5 on page 47)

	MRC	S/C
PSTN Connectivities		
Monthly option, each	\$29.00	
MCP Options		
1 year	26.00	
2 years	25.00	
3 years	24.00	
4 years	23.00	
5 years	22.50	
Links to Other Services	Forborne service	
Business Savings Plan, each link	rate	see
Toll-free Service, each link (see Note 6)	4.00	translation
Type A Link, each link (see Note 7)	4.00	charges
		Item
		15.02 (5)

Notes 5, 6 and 7 are on Page 47.

DIGITAL NETWORK SERVICES

15. INTEGRATED SERVICES DIGITAL NETWORK 23 B+D (ISDN 23 B+D) SERVICE

15.02 Service Components, Rates and Charges (Cont'd)

(2) ISDN Digital Trunk Controller ISDN (DTCI) Port (Cont'd)

(d) Rates and Charges for the other Exchanges (see Note 5 on page 47)

	MRC	S/C
PSTN Connectivities		
Monthly option, each (Note 1)	\$61.88	
MCP Options		
1 year	10%	
2 years	15%	
3 years	20%	
4 years	22%	
5 years	25%	
Links to Other Services	Forborne	see
Business Savings Plan, each link	Service rate	translation
		charges
Toll-free Service, each link (see Note 6)	\$4.00	Item 15.02 (5)
Type A Link, each link (see Note 7)	\$4.00	

Note 1: Rates include Touch Tone and Bell Relay Service.

Notes 5, 6 and 7 are on Page 47.

DIGITAL NETWORK SERVICES

15. INTEGRATED SERVICES DIGITAL NETWORK 23 B+D (ISDN 23 B+D) SERVICE

15.02 Service Components, Rates and Charges (Cont'd)

(4) Public Switched Telephone Network (PSTN)Connectivity and Links to Other Services (Cont'd)

Note 5: ISDN 23 B+D customers likely to trigger a mass calling event capable of exhausting the processing capabilities of the DTCI switch peripheral, must comply with the provisions outlined Item 15.03.

Note 6: Link charges also apply for connections to competitors' Toll-free services.

Note 7: Type A Links provide the software, translations and other switched resources needed to route calls in both directions between a ISDN 23 B+D access and one or more DS-0 channels associated with the dedicated network service to which the channels are connected. The DS-0 channels must be equipped with Common Channel Signalling #7.

(5) Translation Changes

(a) A service charge for translation changes applies for all translation work performed by the Company, other than that performed at the time of installation of the initial access and D-channel.

(b) The translation service charge applies to the subsequent installation of additional accesses and/or D-channels, PSTN connectivities, links to other services and any optional features. See Items 15.02 (1)(a) (3)(a), 1(a)(4)(c) and (1)(a)(6)(b) for the specific elements.

(c) The translation service charge applies once per system group in addition to any service charge shown for the particular service component or feature, for all changes specified on the same order, each time the MSG configuration is modified to accommodate an addition, change or removal of a component or feature.

(d) Rates and Charges

	MRC	S/C
Translation changes	----	\$250.00

DIGITAL NETWORK SERVICES15. INTEGRATED SERVICES DIGITAL NETWORK 23 B+D (ISDN 23 B+D) SERVICE

15.02 Service Components, Rates and Charges (Cont'd)

(6) Other Features and Options

Charges apply for various ISDN 23 B+D features and capabilities. These provide customers with additional capabilities beyond the basic access arrangement, as detailed below.

(a) Definitions:

A Route Traffic Manager (RTM) is an entity in the switch translations that allows the ISDN 23 B+D customer to exercise call control based on the volume of calls.

An Inward Route Labeler (IRL) is an entity in the switch translations that allows the ISDN 23 B+D customer to exercise call control on inward and bidirectional calls based on Call Type, Service Identifier and digit manipulation.

An RTM or IRL may only be equipped with one of the call-redirection options described below at a time.

Overflow is an RTM and IRL option that allows the customer to have incoming calls redirected automatically, within the same line-serving switch, in the event that an RTM or IRL reaches capacity or there are no B-channels available. The overflow is limited to a single destination for each RTM or IRL. C

Controlled Overflow is an RTM and IRL option that allows the customer to enable or disable the Overflow option.

Reroute is an RTM and IRL option that enables the customer to redirect incoming calls to an alternate destination, within the same line-serving switch. The reroute is limited to one destination for each RTM or IRL. C C

Controlled Overflow and Reroute require a scan point offered via a Special Facilities Tariff. Actual configuration is subject to guidelines established by the Company. In addition, combinations of Overflow, Controlled Overflow and Reroute that are not part of the standard design offering will be provided based on the expenses incurred by the Company.

Extended Overflow, Controlled Overflow and Reroute are modified versions of the Overflow, Controlled Overflow and Reroute options in that they allow for call redirection to a telephone number outside of the customer's line-serving switch. C

DIGITAL NETWORK SERVICES

15. INTEGRATED SERVICES DIGITAL NETWORK 23 B+D (ISDN 23 B+D) SERVICE

15.02 Service Components, Rates and Charges (Cont'd)

(6) Other Features and Options (Cont'd)

(a) Definitions: (Cont'd)

When the extended options are used, the redirected calls to destinations outside of the customer's line-serving switch are routed through an outbound RTM to facilitate control and management of call volumes. The call-handling capacity of this RTM is limited to the number of activated B-channels in the customer's MSG, to a maximum of 500 B-channels. The rates and charges for this call-handling capacity are shown in (6)b. following and are based on the number of simultaneous calls that the outbound RTM has been programmed to handle. The rates and charges for the RTM itself also apply.

Note: The customer is responsible for all long distance charges incurred as a result of the extended options routing calls outside of the line-serving switch.

(b) Rates and Charges

	MRC	S/C
Optional Features, each PSTN Connectivity		
Calling Line Identification (see Note 8 on page 50)	--	-- (i)
Calling Name Identification (see Notes 8 and 9 on page 50)	--	-- (i)
Other Features		
Route Traffic Manager		
First 5, each	N/C	-- (i)
6 or more, each	\$50.00	\$150.00(i)
Inward Route Labelers		
First 5, each	N/C	-- (i)
6 or more, each	\$11.00	\$100.00
Overflow, Controlled Overflow, Reroute and the Extended Versions of these Options		
First 5, of these options, in any combination, each	N/C	-- (i)
6 or more, each	N/C	\$50.00 (i)
Call-Handling Capacity of Outbound RTM associated with Extended Overflow, Controlled Overflow and Reroute options (ii) each simultaneous call the outbound RTM is programmed to handle	15.00	-- (i)
Inward Numbers		
First 5, each	N/C (1 & 2)	-- (i)
6 or more, each	\$4.40(1 & 2)	-- (i)
Direct Inward Dialing	N190(1 & 2)	N190(1 & 2)

(1) Rates and charges in the Exchanges of Cobalt, Earlington, Haileybury, Latchford and New Liskeard

(2) Rates and charges in all other Exchanges

(i) See Translation Changes, Item 15.02(5)

(ii) The extended features require an RTM to control outbound call volumes. The RTM is free, if one of the customer's first five. Otherwise, rates and charges apply as shown above for RTMs.

DIGITAL NETWORK SERVICES

15. INTEGRATED SERVICES DIGITAL NETWORK 23 B+D (ISDN 23 B+D) SERVICE

15.02 Service Components, Rates and Charges (Cont'd)

- (6) Other Features and Options (Cont'd)
 - (b) Rates and Charges (Cont'd)

Note 8: Any persons wishing to protect their anonymity may place a call through the Company operator at the charge specified in Section N100 Item 7.02.

Note 9: Calling Line Identification is a prerequisite for the Calling Name Identification option.

15.03 Mass Calling Restrictions and Requirements

- (a) Links to services prone to triggering mass calling events are provided subject to the availability of suitable facilities.
- (b) The customer and the Company determine the number of PSTN connectivities and/or links and if a dedicated peripheral unit is required. A peripheral unit is designed to handle 18 DS-1s, each terminating on a unique DS-1 port.
- (c) When a dedicated peripheral unit is required, an additional charge applies for each idle ISDN DTCI Port on the DCTI peripheral.
- (d) Rates and Charges

	MRC	S/C
Idle ISDN DTCI Port on DTCI peripheral unit, each port	\$336.00	--

15.04 Service Extension

(a) The provision of ISDN 23 B+D service from a Wire Centre other than the customer's usual serving wire center is referred to as ISDN 23 B+D service extension. This may be provided either on an intraexchange basis or on a foreign-exchange basis.

(b) Service extension is provided at the Company's discretion, within or between Exchanges, depending on the availability of sufficient suitable facilities.

(c) Customers may subscribe to ISDN 23 B+D service from more than one Wire Centre. However, each ISDN 23 B+D service is distinct from the others both from a rating perspective and a service perspective. For each ISDN 23 B+D service, the customer's local calling area, telephone numbers, ISDN 23 B+D access rates, PSTN connectivity rates, and message toll rates are associated with the Wire Centre that provides the service.

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15. INTEGRATED SERVICES DIGITAL NETWORK 23 B+D (ISDN 23 B+D) SERVICE

15.04 Service Extension (cont'd)

- (d) In addition to the rates and charges for ISDN 23 B+D service, customers must lease, at tariffed rates, intraexchange and/or interexchange digital facilities between their serving Wire Centre and alternative Wire Centre or Rate Centre from which service is requested. The relevant rates consist of link charges, network connection charges, intraexchange and/or interexchange channel charges, as appropriate. As an exception to the usual rating of digital channels, the ISDN 23 B+D access rate includes the link charges at the originating end of the digital channel.

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19. GATEWAY ACCESS SERVICE19.01 Definitions

For the purposes of this tariff item, the following definitions apply:

- a) A Customer Cutover or Access Upgrade encompasses the case where a customer requires a larger bandwidth access at its Point of Presence (PoP) site to accommodate growth in end user traffic. The customer may also be relocating its PoP site access or transferring all of its existing subscribers to a different access which does not necessarily require an upgrade in bandwidth.
- b) A Customer Name Change is defined as when one customer is requesting its billing or company name to be changed to a different billing or official company name.
- c) A Digital Subscriber Line Service Provider (DSLSP) is a provider of Digital Subscriber Line based applications, such as high speed internet access and Local Area Network (LAN) extensions, to the public for compensation. A DSLSP is not operating as a Competitive Local Exchange Carrier (CLEC).
- d) An end-user is defined as being the service provider's customer.
- e) Mergers and Acquisitions are defined as when one customer is transferring a portion or all of its subscriber base to another customer. This is also applicable when two different customers are merging in order to become only one new company, or when a single company divides to become multiple companies.
- f) A service provider includes either a CLEC or a DSLSP.

19.02 General

- a) Gateway Access Service (GAS) is a broadband access service based on Asymmetric Digital Subscriber Line (ADSL) technology. This service will enable a service provider to establish a high speed data access path between its end-user's premises and a Company serving Wire Centre. End-user login and password authentication are established via a "network selection gateway" or a Broadband Remote Access Server ("BRAS") which can enable access to multiple destination networks.

DIGITAL NETWORK SERVICES19. GATEWAY ACCESS SERVICE19.02 General (cont'd)

- b) GAS uses available bandwidth above the voice-band on the same local loop as the end-user's Company or CLEC provided residential or business individual line, primary exchange service including message rate lines and Centrex voice locals terminating on other than EBS sets. The service is limited to lines terminating on single line station equipment. GAS allows for the simultaneous use of the end-user's telephone line for voice-band applications such as voice transmission, permissive data or facsimile. For the purpose of this Item, such services are defined as "voice service".
- c) Gateway Access Service:
- 1) includes an ADSL Aggregated High Speed Service Provider Interface (AHSSPI) which provides for the aggregation of end-user traffic associated with a single service provider, from every ADSL enabled Wire Centre in the Company's operating territory, and C
 - 2) provides GAS Access over end-user loops that qualify for ADSL service where the ADSL 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. In the case of a remote location, the GAS Access includes the umbilical facilities required to transport ADSL traffic to/from the host Wire Centre serving the remote location. C
 - i) includes all Virtual Circuits (VC) needed to provide Ethernet network connectivity between end users and an ADSL AHSSPI by aggregating traffic associated with each end user from groups of Wire Centres to a BRAS and subsequently aggregating such traffic from all Company provided BRAS to the ADSL AHSSPI. C
 - ii) does not include a dedicated Virtual Circuit (VC, VLAN or PVC) per end user from the end user's location to the ADSL AHSSPI.
- d) Connectivity between the ADSL AHSSPI point of demarcation located in a company Wire Centre and the service provider's PoP can be established via appropriate Company or third party provided facilities or via Central Office links that terminate on the service provider's collocated transmission equipment. C

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19. GATEWAY ACCESS SERVICE (Cont'd)19.02 General (Cont'd)

- e) GAS supports Point to Point Protocol over Ethernet (PPPoE) across the Company's backbone network.
- f) GAS provides for a single domain name. Additional domain names are available upon request in accordance with the rates, terms and conditions below.
- g) 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:
 - (1) 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;
 - (2) abide by the disclosure requirements described in TRP 2009-657; and
 - (3) not use for other purposes personal information collected for the purposes of traffic management or disclose such information.

19.03 Terms and Conditions

- a) The Company determines those serving Wire Centres, which will support Gateway Access Service. The company also determines the ADSL AHSSPI location. C
- b) The end-user's loop facility must qualify for Gateway Access Service.
- c) An ADSL AHSSPI provides Ethernet 100 Base T (FE interface) or a 400 Mbps (GE interface) service demarcation interface, subject to a contract period of 1, 2, or 3 years.

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19. GATEWAY ACCESS SERVICE (Cont'd)19.03 Terms and Conditions (Cont'd)

- d) The ADSL AHSSPI for 100/400 Mbps is limited to 256 Virtual Local Area Network connections (VLANs) per ADSL AHSSPI.
- e) GAS Access consists of the ADSL serving equipment in the serving Wire Centre, and remote location as appropriate, and cross connection of such equipment to Company or CLEC provided voice service. One GAS Access is required for each end-user and each location. C
- f) The rates for GAS Access are based on a contract period selected by the service provider for 1, 2 or 3 years and will be differentiated between residential and business end-users. Different rates will apply for different residence/business speeds, for down stream speeds e.g. 512 kbps and 5 Mbps. The customer is billed one (1) month in advance and is charged based on the number of end users.
- g) The point of demarcation for ADSL AHSSPI is defined as follows:

Ethernet 100 Base T and Ethernet 400 Mbps, the point of demarcation is the patch panel associated with the Ethernet switch determined by the Company.

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19. GATEWAY ACCESS SERVICE19.03 Terms and Conditions (cont'd)

- h) GAS Access will only be provisioned over Company provided primary exchange service or unbundled local loops used to provide CLEC primary exchange service.
- i) The ADSL equipment is subject to operational constraints related to the characteristics of the underlying loop facility. Service providers may use Gateway Access Service to establish high-speed connections to only those end-user premises located within the operational range of the ADSL serving equipment associated with particular Company serving Wire Centres and suitably equipped remote locations. Service providers may not use Gateway Access Service to establish high-speed connections to end-user premises located beyond the range of the ADSL serving equipment or served by NorthernTel or CLEC voice service having excessive bridge taps, equipped with load coils or which is not capable of supporting metallic continuity. C
- j) GAS Access service is offered on a minimum contract period (MCP) of either 1, 2 or 3 years. The contract period for GAS Access and ADSL AHSSPI may vary from each other. All service providers will be notified, either on their monthly bill or by letter, at least 60 days before the end of the current MCP, as to when automatic renewal will take place, absent any indication by the service provider to the contrary. Service providers will be informed that automatic renewal has occurred, within 35 days following renewal, and customers will be advised, either on their monthly bill or by letter, that they may cancel any automatic renewal contract without penalty within 30 days of the date of the notice of automatic renewal.
- k) The service provider is required to provide at least one month's notice, in writing, of early termination of the GAS Access Service contract. Termination charges will be paid as liquidated damages and not as a penalty. In the case of a 1-year contract period, termination charges equal to the total remaining monthly payments for the contract period apply. In the case of a 2 or 3-year contract, termination charges equal to 50% of the remaining monthly payments will apply. Payments will be calculated based on the average volume of end users in the 12 month period prior to notice of termination. If a service provider migrates to a comparable service, the termination charges may be waived by the Company. A "comparable service" is one offered by the Company, contracted for by the service provider for at least as long as the original contract period and to which the applicable fees are no lower than those in the original agreement.

DIGITAL NETWORK SERVICES19. GATEWAY ACCESS SERVICE

19.03 Terms and Conditions (cont'd)

- C 1) If an end-user cancels their Company or CLEC provided voice service or if it is otherwise removed from service, billing for Gateway Access Service will continue until the Company has been notified by the service provider that Gateway Access Service is to be terminated. The end user will lose its ADSL connectivity at the same time the voice service is terminated.
- C m) Where the end-user's Company or CLEC provided voice service currently meets the Company's technical requirements for Gateway Access Service, in particular metallic continuity, the Company will provide the service provider with a minimum of one year's advance notice of any facility change that would eliminate metallic continuity on that end-user's loop.
- n) Serving Area Activation is associated with the BRAS. The BRAS is a network device which aggregates GAS Accesses to a single point within a given broadband serving area, and provides the capability to 'switch' an individual access between multiple networks. The BRAS supports Point to Point Protocol over Ethernet (PPPoE).
- o) The Serving Area Activation is the element within the BRAS that communicates with the end-user PC client's connection software. It logically connects the network destination with the appropriate logon network name. Serving Area Activation is a one-time activity only.
- p) Service providers subscribing to GAS will be responsible for obtaining the following elements required to make the service operational:
- RADIUS Server
 - Class C Address Block - Aggregated reserved for ADSL use and distribution by NorthernTel activated by end-user login
 - ADSL or other compatible high-speed modem, subject to the Company's acceptance
 - Filters - In some circumstances, end-users may detect audible noise on their telephonenumber following the installation of the modem, necessitating the use of voice/data filters installed directly in the telephone jack
 - Any PPPoE software that could be needed in the end user's PCs
 - Ethernet connectivity between NorthernTel's broadband network (location determined by the company) and service provider's PoP.

DIGITAL NETWORK SERVICES19. GATEWAY ACCESS SERVICE

19.03 Terms and Conditions (cont'd)

q) The Maximum Line Speeds available under GAS:

512 kbps Residential
Up to 512 kbps downstream
Up to 128 kbps upstream

5.0 Mb/s Residential
Up to 5000 kbps downstream
Up to 800 kbps upstream

5.0 Mbps Business
Up to 5000 kbps downstream
Up to 800 kbps upstream

r) Customers who subscribe to both GAS and High Speed Access (HSA) services (Section N900) can share a common ADSL AHSSPI for both services.

s) When transferring and/or acquiring existing Domain names, the transfer of end-users associated with these Domain names is required. The Service Provider is responsible for the transfer of the end-users to the Service Provider's profile.

t) The Company does not make any representation that its equipment, facilities and services are, or will remain, adapted for use in connection with DSLSP equipment, facilities and services.

u) The Company 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 as the Company, in its sole discretion, considers necessary. The Company shall not be responsible to the DSLSP or the customers of the DSLSP for their equipment, apparatus, lines, switches, circuits, devices, in whole or in part, which cease to be compatible with Company facilities or which become inoperative because of such changes to the Company's equipment, apparatus, lines, switches, circuits, devices or other components.

v) A Diagnostic Maintenance Charge or Maintenance of Service Charge applies for each test made in response to each DSLSP's request for repair or testing of a trouble when no trouble is found in the Local Loop, including the Company's equipment, apparatus, lines, switches, circuits, devices or other components.

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19. GATEWAY ACCESS SERVICE (Cont'd)

19.03 Terms and Conditions (Cont'd)

- w) When an equipment upgrade is needed by the Company, it should send a notice at least one-month prior the up grade unless the Company faces a situation that would need an immediate action. The company will not do any interoperability tests with the provider's equipment prior to the up grade.
- x) The service provider is responsible for informing the end-users of the connectivity requirements of the service. This includes:
- Ethernet Card requirement if not included in service providers service to its end-users.
 - Protocol (TCP/ IP) configurations.
 - Application configuration details (router, web browser, etc).
- y) 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:
- (1) 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;
 - (2) abide by the disclosure requirements described in TRP 2009-657; and
 - (3) not use for other purposes personal information collected for the purposes of traffic management or disclose such information.

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19. GATEWAY ACCESS SERVICE (Cont'd)

19.04 Rates and Charges

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- a) Two alternate Serving Area Manager Fees are applicable. The first fee option is used to activate the first serving area and each subsequent area in NorthernTel's territory. The second fee option provides for the activation of all serving areas in the Company's territory.
 - b) Multiple Domain Names: i) One time rates apply for programming the BRAS, on the same VLAN, with the first additional domain name and subsequent additional domain names on the same order ii) Multiple domain names are limited to a maximum of fifteen (15).
 - c) Administration Fees: Administration Fees provide for business office work that is required to perform the following functions: Customer Name Change, Mergers and Acquisitions and Customer Cutover or Access upgrades, including Access speed changes for end-users.
 - d) Gateway VLAN Administration Fee: The Gateway VC Administration Fee addresses the work required to remap VCs from each of NorthernTel's BRASs to the customer's PoP site allowing for end user authentication. The number of VCs is dependent upon the number and specific location of the serving areas the customer has chosen to offer service. As larger urban centres require more BRASs, this translates into higher numbers of VLANs that may be impacted by mergers and acquisitions, customer cutover or access upgrades and potentially name changes.
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DIGITAL NETWORK SERVICES

19. GATEWAY ACCESS SERVICE

19.04 Rates and Charges (cont'd)

e) The following rates and charges apply to the various components of the service:

ADSL Agregated High-Speed Provider Interface (AHSSPI)	Contract Period			Service Charge \$
	Rate per month \$			
	1 Year	2 Years	3 Years	
100 Mbps (Burstable up to 100 Mbps) per service provider)	775.00	725.00	675.00	600.00
400 Mbps (Burstable up to 400 Mbps) per service provider)	1,850.00	1,800.00	1,750.00	600.00

GAS Access - Residence each	Contract Period			Service Charge \$
	Rate per month \$			
	1 Year	2 Years	3 Years	
Speed 512 Kbps				
<500	20.50	20.00	19.50	50.00
501-1000	20.00	19.50	19.00	50.00
>1001	19.50	19.00	18.50	50.00
Speed 5.0 Mbps				
<500	30.00	29.00	28.00	50.00
501-1000	29.00	28.00	27.00	50.00
1001-2000	28.00	27.00	26.00	50.00
2001-2500	27.00	26.00	25.00	50.00
>2501	26.00	25.00	24.00	50.00

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DIGITAL NETWORK SERVICES

19. GATEWAY ACCESS SERVICE

19.04 Rates and Charges (cont'd)

e) The following rates and charges apply to the various components of the service: (cont'd)

GAS Access - Business each	Contract Period Rate per month \$			Service Charge \$
	1 Year	2 Years	3 Years	
Speed 5.0 Mbps				
<500	36.00	35.00	34.00	50.00
501-1000	35.00	34.00	33.00	50.00
1001-2000	34.00	33.00	32.00	50.00
2001-2500	33.00	32.00	31.00	50.00
>2501	32.00	31.00	30.00	50.00

DIGITAL NETWORK SERVICES19. GATEWAY ACCESS SERVICE

19.04 Rates and Charges (cont'd)

- e) The following rates and charges apply to the various components of the service: (cont'd)

	Contract Period Rate per Month \$			Service Charge \$
	1 Year	2 Years	3 Years	
Serving Area Manager Fees For the first and each subsequent serving area activation	N/A	N/A	N/A	3,000.00
To activate all serving areas in NorthernTel's Territory	N/A	N/A	N/A	10,000.00
Multiple Domain Names A one-time charge will apply on the same VC for the first additional domain name	N/A	N/A	N/A	1,500.00
For subsequent domain names requested on the same order, a one-time charge per domain name will apply	N/A	N/A	N/A	200.00
Administration Fee per end user	N/A	N/A	N/A	25.00
Gateway VC Administration Fee per VC	N/A	N/A	N/A	50.00

N/A = Not Applicable