TDS TELECOM Wisconsin

Section 6 Second Revised Contents Sheet 1 Cancels First Revised Contents Sheet 1

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LOCAL DIGITAL SERVICES

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EFFECTIVE: February 1, 2016

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LOCAL DIGITAL SERVICES

6.1 <u>INTEGRATED SERVICES DIGITAL NETWORK (ISDN) SERVICE BASIC RATE INTERFACE (BRI) (1)</u>

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A. General

- Integrated Services Digital Network (ISDN) is a set of integrated digital telecommunication services provided over customers existing POTS line and the public switched telephone facilities. The ISDN network architecture provides the ability to transmit data and voice over the same telephone line simultaneously. This functionality is provided via channelized transport facilities.
- 2) The BRI arrangement usually consists of two "B" channels and one "D" channel (2B+D). In addition, BRI provides a single line Residence or Business customer with access to Circuit Switched Voice Service, Circuit Switched Data Service, and Packet Switched Data Service.
- 3) One primary directory listing and Caller ID Basic is included with this service.
- 4) All ISDN Service lines consist of central office facilities, including the outside plant facilities, extended form the Company's switching equipment to the customer's demarcation point.
- 5) ISDN Service is provided at the option of the Company, and is furnished subject to central office switching capacity and the availability of outside plant facilities. The availability, functionality and capabilities of the ISDN Service features may vary, or may not be available dependent upon type of serving central office switch, related software controlling that switch and associated outside plant.
- 6) The Company shall not be responsible if changes in any of the equipment, operations, or procedures of the Company utilized in the provision of ISDN Service render any facilities provided by the customer obsolete or require modification or alteration of such customer's equipment or systems, or otherwise affect its use or performance.

This service is grandfathered to existing customers effective September 1, 2015. This service will not be available to new customers after this date.

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LOCAL DIGITAL SERVICES

6.1 <u>INTEGRATED SERVICES DIGITAL NETWORK (ISDN) SERVICE BASIC RATE INTERFACE (BRI)</u> (1) (Cont'd)

(C)

B. <u>Service Description</u>

- "B" Channel: The "B" Channel is a bi-directional synchronous channel capable of supporting 64 kilobit per second (kbps) of digital transmission of information between users. The "B" Channel be configured to offer voice service, data service or voice/data service. One Primary Directory Number with one Primary Directory Listing for the first "B" Channel ISDN Service line is provided. Additional listings may be provided as specified for Additional Listing Service in the Directory Listings section of this Company's tariff.
- 2) "D" Channel: The "D" Channel is a 16 kbps digital signaling channel that carries signaling and control for the "B" channel and has maximum packet transmission throughput of 9.6 kbps.
- 3) Circuit Switching Circuit Switching is a switching technique in which an entire circuit or, in a digital switch equipped for ISDN, a specific selection of time slots is dedicated to a given call. Circuit Switched Service provides the ability to originate and receive circuit switched voice, data and voice/data calls over a 64 kbps "B" channel. The customer may choose among the features listed in this tariff based upon application needs.
- 4) Alternate Circuit Switched Voice Service/Circuit Switched Data Service-Alternate Circuit Switched Voice Service/Circuit Switched Data Service provides the ability to originate and receive either Circuit Switched Voice calls or Circuit Switched Data calls over a single "B" channel but not simultaneously. This arrangement is available where technology permits. The features applicable to Circuit Switching Service are also applicable to this service.
- Intraswitch Packet Switched Data "D" Channel Service: Packet Switching is a technique in which packets of data are individually addressed and combined on a transmission path with other addressed packets. Packet Switched Data "D" Channel Service provides the ability to originate and receive X.25 packet data calls on an intraswitch basis. This arrangement provides a maximum throughput of 9.6 kbps. Each "D" channel packet terminal will provide logical channel up to the technical capabilities of the serving central office. Multiple packet calls can be active simultaneously by a user on a single "D" channel. Up to eight data terminals can be supported per Basic Rate Interface. Service includes one data telephone number.
- This service is grandfathered to existing customers effective September 1, 2015. This service will not be available to new customers after this date.

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LOCAL DIGITAL SERVICES

6.1 INTEGRATED SERVICES DIGITAL NETWORK (ISDN) SERVICEBASIC RATE INTERFACE (BRI) (1) (Cont'd)

(C)

C. Features

- 1) Electronic Key Telephone Service (EKTS) Features: <u>:</u> Electronic Key Features provide the customer with the ability to access the following features where available:
 - a) Multiple Call Appearances of a Directory Number An arrangement that allows the user to have appearances of the directory number assigned to the customer-provided set, providing the capability of multiple incoming or outgoing calls associated with that directory number. Multiple incoming calls to this directory number or secondary telephone number (if purchased) can be terminated to the telephone if one or more idle calls appearances are available to accept the calls. In certain central offices, this arrangement may impact the use of the Shared Call Appearance feature.
 - b) Shared Call Appearances of a Directory Number An arrangement that allows a directory number(s) from one customer-provided set to appear as a call appearance(s) on the customer-provided sets of other users. Bridging, an arrangement that allows the user to connect onto a currently active call, is included.
 - c) Analog Line Pickups An arrangement that allows an ISDN set to provide coverage for an analog number(s). This arrangement is limited to analog numbers that are terminated in the same central office switch. This feature may limit the use of other features and/or functionality on the analog line. Bridging, an arrangement that allows the analog user to connect onto a currently active call, is included.
 - d) Privacy Release (Automatic Exclusion) An arrangement that allows a customer to specify that no other user can bridge onto an existing call(s). On a call by call basis, this feature can be disabled to allow bridging to occur.
 - e) **Manual Exclusion (Privacy)** An arrangement (opposite of Privacy Release) that allows the customer to restrict other stations from picking up an existing call on hold or bridging onto an existing call that is active at that station.
- This service is grandfathered to existing customers effective September 1, 2015. This service will not be available to new customers after this date.

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LOCAL DIGITAL SERVICES

6.1 <u>INTEGRATED SERVICES DIGITAL NETWORK (ISDN) SERVICE BASIC RATE INTERFACE (BRI)</u> (1) (Cont'd)

(C)

- C. <u>Features</u> (cont'd)
 - 1) Electronic Key Telephone Service (EKTS) Features: (Contd)
 -) **Intercom Calling** An arrangement that allows for ISDN station-to-station calls.
 - g) Bridging An arrangement that allows the user to join an active call by pressing the active call appearance button. Bridging is inhibited if Manual Exclusion is activated on the terminal engaged in the active call.
 - 2) Secondary Telephone Numbers An arrangement that allows a customer-provided set to have access to an additional telephone number(s). The additional telephone number(s), or Secondary Telephone Number(s), may originate or receive calls independent of the customer-provided set's Primary Directory Telephone Number.
 - 3) Clear Channel Capability A characteristic of the transmission paths on the "B" channel that allows the full bandwidth on the "B" channel, 64 kbps, to be available to the customer. However, ISDN interconnection to non-ISDN equipped central offices will be potentially subjected to analog transmission or sub-rated to 56 kbps.
 - 4) Custom Calling Services Available at rates and charges specified elsewhere in the Custom Calling Services section of this tariff. Custom Calling Service features found specifically in this ISDN tariff will be charged for at rates found on the ISDN Rate Schedule.
 - a) **Call Hold** Allows the user to place a call on hold by pressing a programmed button on a customer-provided set.
 - b) **Call Drop** -This central office based feature allows the user to disconnect the last party added to a conference call.
 - c) Call Transfer This feature allows the user to transfer a call to another directory number. This feature is for use with Circuit Switched voice only.

This service is grandfathered to existing customers effective September 1, 2015. This service will not be available to new customers after this date.

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LOCAL DIGITAL SERVICES

6.1 INTEGRATED SERVICES DIGITAL NETWORK (ISDN) SERVICE BASIC RATE INTERFACE (BRI) (1) (Cont'd)

(C)

- C. Features (Cont'd)
 - 5) Advanced Calling Services Available at rates and charges specified elsewhere in the Advanced Calling Services section of this tariff. Advanced Calling Service features found specifically in this ISDN tariff will be charged for at rates found on the ISDN Rate Schedule.
 - a) Caller Identification Deluxe An Advanced Calling Service feature that provides the caller's name and number to be displayed on properly equipped customer-provided equipment (where available).
 - b) Caller Identification Basic An Advanced Calling Service feature that provides the caller's telephone number to be displayed on properly equipped customer-provided equipment (where available).
 - 6) Intraswitch Packet Switched Data "D" Channel Service
 - a) Flow Control Parameter Negotiation An arrangement that permits negotiation on per call basis of the flow control parameters. This feature automatically negotiates the maximum packet size and window size for each direction of data transmission. This can be presubscribed (fixed) or it can be established on a per call basis.
 - b) **Throughput Class Negotiation** An arrangement that allows the calling data terminal to request specific throughput classes (bits/second) in the call request packet for both directions of data transmission.
 - c) Logical Channels An arrangement that is a virtual circuit, offering multiple logical connections at the packet level of X.25. ISDN packet data service offers the ability to send and/or receive packet data calls on separate logical channels within one ISDN "D" channel. The logical channels can be assigned as permanent virtual circuits, incoming only, outgoing only, or two-way (incoming and outgoing).
 - d) **Incoming Calls Barred** An arrangement that prohibits a data terminal from terminating an incoming call.
 - e) **Outgoing Calls Barred** An arrangement that prohibits a data terminal from originating outgoing calls.
- This service is grandfathered to existing customers effective September 1, 2015. This service will not be available to new customers after this date.

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LOCAL DIGITAL SERVICES

6.1 INTEGRATED SERVICES DIGITAL NETWORK (ISDN) SERVICE BASIC RATE INTERFACE (BRI) (1) (Cont'd)

(C)

- C. <u>Features</u> (cont'd)
 - 7) Closed User Groups An arrangement that allows ISDN users to establish subnetworks of ISDN packet switching data users from which members can communicate with each other. The Closed User Group is established on a per line basis. The first member of a Closed User Group is included. Additional members are charged at the rate established in the rate schedule. Each data terminal in a Closed User Group can be arranged in one of the following modes:
 - a) Closed User Group with Outgoing Access The data terminal makes outgoing calls only.
 - b) Closed User Group with Incoming Access The data terminal receives incoming calls only.
 - c) Incoming Calls Barred Within a Closed User Group The data terminal makes outgoing calls only to the data terminal in the Closed User Group with which it is associated.
 - d) Outgoing Calls Barred Within a Closed User Group The data terminal receives incoming calls only to the data terminals in the Closed User Group with which it is associated.
 - e) **Unrestricted Access** The data terminal receives and makes both incoming and outgoing calls.
 - 7) **Fast Select** An arrangement that allows a sending data terminal to forward up to 128 bytes of data along with the call setup and clearing packets.
 - 8) Fast Select Acceptance An arrangement that allows the switch to transmit incoming call packets with the Fast Select facility to a destination terminal that has this feature.

This service is grandfathered to existing customers effective September 1, 2015. This service will not be available to new customers after this date.

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LOCAL DIGITAL SERVICES

6.1 INTEGRATED SERVICES DIGITAL NETWORK (ISDN) SERVICE BASIC RATE INTERFACE (BRI) (1) (Cont'd)

(C)

D. Transmission Specifications

The Standard Transmission parameters for an ISDN Service line utilizing an ISDN Basic Rate Interface (BRI) consists of: a maximum of 38.5db loop loss at a 40Kz test tone terminate into a 135 ohm impedance. The 38.5db loss includes all central office facilities, outside plant facilities and inside wiring.

E. <u>Customer Premise Equipment and Facilities</u>:

The customer is responsible for providing compatible premises equipment in order to utilize the ISDN offering. All customer-provided equipment used to interface with ISDN Service is required to conform with the Technical Reference Specification as used by the Company and is found in the following Technical References:

SubjectTechnical ReferenceAvailableBasic Rate InterfaceAT&T 235-900-3411-800-432-6600Customer Premises Planning GuideAT&T 533-700-1001-800-432-6600

The Company shall not be responsible if changes in any of the equipment, operations, or procedures of the Company utilized in the provision of ISDN Service render any facilities provided by the customer obsolete or require modification or alternation of such equipment or system, or otherwise affect its use or performance.

F. Special Construction

An average amount of entrance and distribution facilities may be furnished by the Company provided the facilities are of the standard type normally furnished for the particular location or kind of service. If additional entrance or distribution facilities are required; if the conditions are such as to require special equipment; if the installation is for temporary or semi-permanent purpose or if for any other reason the construction costs are excessive, the applicant shall be required to pay the costs over and above those applicable for a normal installation. Each special construction situation will be evaluated on an individual case basis.

This service is grandfathered to existing customers effective September 1, 2015. This service will not be available to new customers after this date.

EFFECTIVE: November 1, 2015

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LOCAL DIGITAL SERVICES

6.2 INTEGRATED SERVICES DIGITAL NETWORK (ISDN) BASIC RATE INTERFACE (BRI) and CENTREX SERVICE (1)

(C)

A. General

Integrated Services Digital Network (ISDN) Basic Rate Interface (BRI) Centrex Service is a digital telecommunications network architecture provided over Centrex Service.

B. Service Description

- 1) ISDN is an end-to-end digital telecommunications network architecture that provides simultaneous access, transmission and switching of voice, data and video services via channelized transport. The ISDN architecture consists of digital switching systems which connect Basic Rate Interface (BRI) lines, an optional service arrangement which can be used in conjunction with a customer's Centrex service, to their serving central office. ISDN-BRI provides the customer with access to Circuit-Switched Voice Services, Circuit-Switched Data Services and Packet Switched Data Service.
- 2) Centrex is a central office-based business communications service that provides capabilities similar to those offered on a Private Branch Exchange (PABX), but without requiring switching equipment on the customer's premise. Centrex integrates all of a business customer's lines into a single telecommunications system.

C. Conditions and Limitations

- 1) ISDN-BRI Centrex Service is provided at the option of the telephone company and is furnished subject to central office switching capacity and the availability of outside plant facilities. The availability, functionality and capabilities of the ISDN-BRI Centrex Service features may vary, or may not be available, dependent upon type of serving central office switch, related software controlling that switch and associated outside plant.
- 2) The conditions, regulations and specifications which apply to ISDN-BRI and Centrex Services, individually, also apply to ISDN-BRI Centrex Service. Refer to the approved ISDN-BRI and Centrex Service sections of this Company's tariff for specific conditions, regulations and specifications.
- This service is grandfathered to existing customers effective September 1, 2015. This service will not be available to new customers after this date.

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LOCAL DIGITAL SERVICES

6.2 INTEGRATED SERVICES DIGITAL NETWORK (ISDN) BASIC RATE INTERFACE (BRI) and CENTREX SERVICE (1) (Cont'd)

(C)

D. Rate Application

The rates and charges for ISDN-BRI Centrex Service will be the combined rates and charges for ISDN-BRI Service and Centrex Service. The rates for ISDN-BRI Service include access facility, channel rates, optional features and nonrecurring charges. Refer to the approved ISDN-BRI Service section of the Company's tariff for specific rates and charges. The rates for Centrex Service include Centrex line rates, optional features and nonrecurring charges. Refer to the approved Centrex Service section of the Company's tariff for specific rates and charges.

⁽¹⁾ This service is grandfathered to existing customers effective September 1, 2015. This service will not be available to new customers after this date.

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LOCAL DIGITAL SERVICES

6.3 INTEGRATED SERVICES DIGITAL NETWORK (ISDN)PRIMARY RATE INTERFACE (PRI) (I)

(C)

A. General

- Integrated Services Digital Network (ISDN) is a set of integrated digital telecommunication services provided over customers existing POTS line and the public switched telephone facilities. The ISDN network architecture provides the ability to transmit data and voice over the same telephone line simultaneously. This functionality is provided via channelized transport facilities.
- The PRI arrangement uses a T-1 to provide a total of twenty-four digital communications channels within a single physical facility. Twenty-three of these channels are called Bearer, or B Channels and they carry the actual voice or data. Another channel, called the Delta or D Channel, is used to transport signaling for the other 23 channels. This configuration is known as 23B+DPRI and provides the customer with access to Circuit-Switched Voice Services and Circuit-Switched Data Services.

B. <u>Service Arrangement Description</u>

- B Channel The B Channel is a bi-directional synchronous channel capable of supporting digital transmission speeds of 64 kilobits per second (kbps). Each B Channel of a PRI may carry:
 - a) Circuit-Switched Voice
 - b) Circuit-Switched Data
- 2) **D Channel** The D Channel is a 64 kbps digital signaling channel that carries signaling and control for the B Channels.
- 2) Primary Rate Access Facility The Primary Rate Access Facility provides a high capacity digital link over which the Primary Rate services are delivered. This facility is based on a 1.544 mbps DS1 carrier (T1 facility).

This service is grandfathered to existing customers effective May 1, 2018. This service will not be available to new customers after this date.

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LOCAL DIGITAL SERVICES

6.3 INTEGRATED SERVICES DIGITAL NETWORK (ISDN) PRIMARY RATE INTERFACE (PRI) (1) (Cont'd)

(C)

- B. <u>Service Arrangement Description</u> (Cont'd)
 - 3) **Multiple PRI Arrangement** There may be situations where more than 23 B Channels are needed at a particular customer premise. In those situations, multiple PRI facilities can be assigned to a PRI arrangement. With the multiple PRI arrangement, the D Channel in the first PRI facility is used to transport signaling for additional PRI facilities. The first PRI would be configured as 23B+D and the other PRIs would be configured as 24B. This use of Non-Facility Associated Signaling (NFAS) allows the overhead of the D Channel to be distributed over multiple PRI facilities, thereby increasing channel efficiency.
 - 4) D Channel Backup In Multiple PRI Arrangements, a second D Channel can be assigned (where available) as an automatic backup to the primary D Channel. This can be offered when more than one PRI is provided to the same customer in order to provide redundancy of the signaling channel.
 - 5) **ISDN-PRI Failover Solution** Allows a customer's incoming ISDN-PRI traffic to overflow to a predetermined alternate route in an out-of-service situation. The incoming traffic is forwarded to a remote call forward number and then forwarded to one or more basic access lines in a hunt group.

C. <u>Circuit Switched Feature Descriptions</u>

Circuit Switching is a switching arrangement in which an entire circuit or B Channel is dedicated to a given call. The circuit is connected on a per call basis and can carry circuit-switched voice or circuit-switched data. Circuit switched related services include:

- Clear Channel Capability A characteristic of the transmission paths on the "B" channel that allows the full bandwidth on the "B" channel, 64 kbps, to be available to the customer. However, ISDN interconnection to non-ISDN equipped central offices will be potentially subjected to analog transmission or sub-rated to 56 kbps.
- 2) **Dedicated Trunk Groups** The B Channels of a PRI can be dedicated for calls to and from the public network: Incoming, Outgoing, 2-way, Direct Outward Dialing (DOD) or Direct Inward Dialing (DID).

This service is grandfathered to existing customers effective May 1, 2018. This service will not be available to new customers after this date.

(C) (C)

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LOCAL DIGITAL SERVICES

- 6.3 INTEGRATED SERVICES DIGITAL NETWORK (ISDN) PRIMARY RATE INTERFACE (PRI) (1) (Cont'd)
- (C)

- C. <u>Circuit Switched Feature Descriptions</u> (cont'd)
 - 3) **Primary Rate Call-By-Call Service** The Primary Rate Call-By-Call (CBC) feature offers access to additional services such as:
 - a) Foreign Exchange,
 - b) Tie Trunk,
 - c) InWATS,
 - d) and OutWATS

via the B Channels of an ISDN-PRI. With this feature, any B Channel on the PRI can be used to offer the above services on a per-call basis in addition to trunk calls to/from the public network (i.e., DOD/DID).

- 4) Multiple Directory Numbers Each PRI includes an individual directory number. Additional directory numbers, a range of directory numbers, or several ranges of directory numbers can be optionally added.
- 5) Advanced Calling Services ISDN-PRI can support access to the following Advanced Calling Services (also called CLASS services) from suitably equipped CPE:
 - a) Caller ID Number This feature allows the central office and the customer's equipment to communicate the calling party's directory number on calls carried by the Primary Rate service. The number can then be made available to be displayed on a properly equipped telephone set or adjunct equipment.
 - b) Caller ID Deluxe This feature allows the central office and the customer's equipment to communicate the calling party's name and number on calls carried by the Primary Rate service. The name and number can then be displayed on a properly equipped telephone set or adjunct equipment. If a calling party has activated blocking, the name and number will not be transmitted to the display equipment of a Caller ID-Deluxe subscriber.
- 6) Network Name Display

Allows the name of a station user calling over ISDN PRI service to be forwarded for display on a properly equipped customer-provided set. The terminating system may be in the same or a different Central Office.

This service is grandfathered to existing customers effective May 1, 2018. This service will not be available to new customers after this date.

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LOCAL DIGITAL SERVICES

6.3 INTEGRATED SERVICES DIGITAL NETWORK (ISDN) PRIMARY RATE INTERFACE (PRI) (1) (Cont'd)

(C)

D. Technical Specifications

1) **Transmission Specifications** - The Primary Rate Access Facility provides a high capacity digital link over which the Primary Rate services are delivered. This facility is based on a 1.544 Mbps DS1 carrier (T1 facility) whose characteristics are as follows:

Line Code = Bipolar 8 Zero Substitution (B8ZS)
 Framing Format = Extended Super Frame (ESF)

Signaling = Q.931 Signaling

Data Rate = 64 kbps clear or kbps restricted
 D Channel = 24th channel on the T1 facility

2) Customer Premise Equipment (CPE) and Facilities - Compatible CPE is required to utilize ISDN-PRI. All equipment used to interface with these services is required to conform with ISDN guidelines as referenced in the following Bellcore specifications:

Document Number	<u>Description</u>
TR-NWT-001268	ISDN Primary Rate Interface Call Control Switching and Signaling Generic Requirements for Class II Equipment
SR-NWT-002343	ISDN Primary Rate Interface Generic Guidelines for Customer Premises Equipment

The Telephone Company shall not be responsible if changes in any of the equipment, operations, or procedures of the Company utilized in the provisioning of ISDN services render any facilities provided by the customer obsolete or require modification of such equipment or system, or otherwise affect its use or performance.

(C)

This service is grandfathered to existing customers effective May 1, 2018. This service will not be available to new customers after this date.

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LOCAL DIGITAL SERVICES

6.3 INTEGRATED SERVICES DIGITAL NETWORK (ISDN) PRIMARY RATE INTERFACE (PRI) (1) (Cont'd)

(C)

E. Conditions and Limitations

- 1) Unless specifically exempted, ISDN services shall be subject to all general regulations applicable to the provision of service by the Telephone Company as stated in the general tariff.
- 2) ISDN-PRI is provided at the option of the Company. These services are furnished subject to central office switching capacity, capability, and the availability of outside plant facilities.
 - a) Where facilities are not available, or unusual expenditures are involved in making them available, the customer may be required to pay additional charges to cover the unusual expenditure, or to contract for services beyond the normal service term, or both.
 - b) Mileage Charges: Provision of the underlying PRI Access facility (T1) is mileage sensitive. As such, additional mileage charges may apply.
- 3) Payment for Service:
 - a) The minimum charge period for services provided under this tariff is one month.
 - b) The customer may choose to pay for the service on a month-to-month basis.
 - c) Suspension of service is not allowed.
- 4) Directory Listings: One directory listing is provided without charge for each ISDN-PRI customer. Additional listings may be provided as specified for Additional Listing Service in the Rates & Charges section of this ISDN-PRI tariff.
- 5) Billable Call Treatment: Normal toll charges (including InWATS and OutWATS charges) shall apply to calls that are made outside of the Local Service Area.

This service is grandfathered to existing customers effective May 1, 2018. This service will not be available to new customers after this date.

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LOCAL DIGITAL SERVICES

6.3 INTEGRATED SERVICES DIGITAL NETWORK (ISDN) PRIMARY RATE INTERFACE (PRI) (1) (Cont'd)

(C)

- E. Regulations and Conditions (Cont'd)
 - 6) Customer Premise Equipment (CPE):
 - a) This tariff does not include terminal equipment on the customer's premises. Terminal equipment may be covered under a separate tariff, sold or leased separately by the Telephone Company (under a separate contract), or may be provided by the customer.
 - b) The customer is responsible for providing the power required for any and all CPE connected to an ISDN-PRI.
 - 7) The Telephone Company shall not be liable for any loss or damages arising out of error, interruptions, defects, failure, or malfunctions of ISDN services or associated equipment. Damages arising out of such interruptions, defects, failures, or malfunctions of the services after the Telephone Company has been notified, and has reasonable time for repair, shall in no event exceed an amount equivalent to the charges made for the service affected for the period following notice from the customer until service is restored.
 - 8) Service Establishment Charges do not apply for the establishment of the Communication Channels when the customer signs an agreement to subscribe to ISDN-PRI for a minimum of 3 years. If the customer discontinues service prior to the conclusion of the 3 year agreement, the customer will incur a disconnection charge equal to the Service Establishment Charges. The disconnection charge will not apply if the customer purchases other services from the Company which replace ISDN-PRI service.

This service is grandfathered to existing customers effective May 1, 2018. This service will not be available to new customers after this date.

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LOCAL DIGITAL SERVICES

6.4 (T)

(T) Service filed in error.

ISSUED: February 13, 2003

AMENDMENT NÓ.: 3

BY: Paul E. Pederson, Vice-President

EFFECTIVE: March 15, 2003

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LOCAL DIGITAL SERVICES

6.4

(T)

(T) Service filed in error.

ISSUED: February 13, 2003 AMENDMENT NÓ.: 3

BY: Paul E. Pederson, Vice-President

EFFECTIVE: March 15, 2003

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LOCAL DIGITAL SERVICES

6.5 INTEGRATED SERVICES DIGITAL NETWORK (ISDN) BASIC RATE INTERFACE (BRI) FOREIGN EXCHANGE SERVICE (1)

(C)

A. General

ISDN-BRI Foreign Exchange Service is ISDN-BRI exchange service furnished to a customer from a central office of an exchange other than the one that normally services the area in which the customer is located. The Company may either be the 1) Serving ISDN-BRI central office for another central office, or 2) Receiving ISDN-BRI central office from another central office.

B. Conditions and Limitations

- 1) ISDN-BRI Foreign Exchange Service, Serving or Receiving, does not come within the Company's general undertaking, nor does the Company obligate itself to furnish such service generally; but will do so at its option where facilities are available and the service is warranted by the circumstances involved.
- 2) The conditions, regulations and specifications which apply to ISDN-BRI within the exchange also apply to ISDN-BRI Foreign Exchange Service. Refer to the ISDN-BRI Service section of the providing company's tariff. The availability, functionality and capabilities of ISDN services may vary when a customer's serving central office is equipped to provide ISDN services.
- 3) This service offering is only applicable between TDS-owned facilities. If the service is not between TDS-owned facilities, the proper Interexchange Tariff would be used.

C. Rate Application

- All rates and charges for telephone service in a foreign exchange will be the combined rates and charges of each Company providing the facilities for such service.
- 2) The rates for ISDN-BRI Foreign Exchange Service for the Serving ISDN-BRI central office include an ISDN-BRI line charge, mileage, termination, optional features and non-recurring charges. The rates for ISDN-BRI Foreign Exchange Service for the Receiving ISDN-BRI central office include an ISDN-BRI line charge, mileage, termination and non-recurring charges.
- This service is grandfathered to existing customers effective September 1, 2015. This service will not be available to new customers after this date.

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LOCAL DIGITAL SERVICES

6.6 DEDICATED DS1 SERVICE (1)

(C)

A. General

Dedicated DS1 Service is a point-to-point intraexchange service that provides for simultaneous two-way transmission at 1.544 Megabits per second (Mbps). This service only transmits digital signals and uses only digital transmission facilities. Dedicated DS1 service and its features are offered subject to the availability of central office equipment and appropriate outside plant facilities. This service is specifically designed for customers that require dedicated DS1 facilities from a TDS TELECOM Central Office to their location.

B. Definitions

<u>Clear Channel Capability</u> - An optional feature of DTS that allows a customer to transport 1.536 Mbps on a 1.544 Mbps line with no constraint on quantity or bit sequence.

<u>DS1</u> - Digital facility that is equivalent to 24 DS0s. Total transmission speed is 1.544 Mbps.

<u>Digital Local Channel</u> - A transmission path for Dedicated DS1 Service furnished from the Central Office to the demarcation point on the customer's premises.

C. Conditions and Limitations

- Dedicated DS1 Service is available for a minimum service period of one month.
- Dedicated DS1 Service is available on a month-to month basis or under variable rate periods, with rates based on lengths of 12 months, 36 months and 60 months.
- 3) Rates for Dedicated DS1 under contract will not be increased by Company initiative until the contract period expires. Rates in effect at the time the service is installed will be applicable until the contract expires. Upon expiration of the customer's current payment period option, the customer may select a new payment period option at current rates or revert to current rates on a month-to-month basis.
- 4) For channelization of Dedicated DS1 Service, please see Digital Transport Service found elsewhere in this tariff.
- This service is grandfathered to existing customers effective May 1, 2018. This service will not be available to new customers after this date.

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LOCAL DIGITAL SERVICES

DEDICATED DS1 SERVICE (1) (Cont'd)

(C)

- Conditions and Limitations (Cont'd)
 - 5) If the service is canceled by the customer prior to the completion of the service period, the customer will be obligated to pay a termination charge. The applicable termination charge will be equal to the number of months remaining in the contract times the monthly rate provided under the contract. Termination charges will not apply, however, if the customer replaces the service with comparable service and a contract length that is equal to or greater than the original contract period.
 - 6) The rates listed in each Company's Rates and Exceptions, assume the provision of a digital quality facility that uses existing exchange cable facilities compatible with this service. If such equipment, new facilities or changes to existing facilities are required for the provision of this service, a special construction charge based on the cost incurred to make the changes will apply in addition to the rates for Dedicated DS1 Service.
 - 7) The two types of non-recurring charges associated with Dedicated DS1 Service include a Design Order Charge and an Installation Charge. The Design Order Charge applies once per order while the Installation Charge will apply for each Digital Local Channel installed.
 - 8) The Installation Charge and Design Order Charge will not apply for the establishment of Dedicated DS1 Service when the customer signs an agreement to subscribe to the service for a minimum of 3 years. If the customer discontinues service prior to the conclusion of the 3-year agreement, the customer will incur a disconnection charge equal to the Design Order Charge and applicable Installation Charges. The disconnection charge will not apply if the customer purchases other services from the Company which replace Dedicated DS1 Service.

(1) This service is grandfathered to existing customers effective May 1, 2018. This service will not be available to new customers after this date.

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LOCAL DIGITAL SERVICES

DIGITAL TRANSPORT SERVICE (1) 6.7

(C)

A. General

Digital Transport Service (DTS) provides customers with a more cost-effective option to deliver voice grade service from the serving Central Office to a customer's premises. DTS is only provided with a DS1 Channel (1.544 Mbps) as provisioned elsewhere. DTS supports Direct Inward Dialing (DID) Service, Dedicated 800 Service, and Local Exchange Business Trunks. The primary users of this service include Internet Service Providers and owners of PBX Systems.

B. Definitions

DS0 - One voice grade circuit. This circuit generally has a 64 Kbps transmission speed.

DS1 - Digital facility that is equivalent to 24 DS0s. Total transmission speed is 1.544 Mbps.

C. **Conditions and Limitations**

- 1) DTS is subject to the availability of central office equipment and appropriate outside plant facilities.
- 2) The rate structure for DTS requires charges for Trunk Terminations, DS1 facility, Digital Interface Termination and Subscriber Line Charges (SLC). The Digital Interface Termination rate is available on a month to month basis or under variable rate periods with rates based on lengths of 12 months. 36 months, and 60 months.
- 3) The total number of Trunk Terminations activated by the customer may not exceed the capacity of each DS1 facility.
- 4) Applicable F.C.C. charges will be assessed for the Subscriber Line Charge, per the NECA F.C.C. Access Tariff No. 5.

(1) This service is grandfathered to existing customers effective May 1, 2018. This service will not be available to new customers after this date.

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LOCAL DIGITAL SERVICES

6.7 DIGITAL TRANSPORT SERVICE (1) (Cont'd)

(C)

- C. Conditions and Limitations (Cont'd)
 - 5) Additional charges for Central Office services and features such as Direct Inward Dialing (DID) Service are applicable when appropriate, as specified elsewhere in this tariff.
 - 6) Calls will be subject to any applicable usage charges for services provisioned on the DTS channels. Extended Community Calling (ECC) charges and Message Telecommunications charges will apply to calls outside the Local Service Area.
 - 7) Touch-tone signaling is required for DTS.
 - 8) Unless specifically exempted, DTS is subject to all general regulations applicable to the provision of service by the Company as stated in the general tariff.
 - 9) As a result of any interface or technical changes required of the Company due to the possible future adoption of FCC rules under Part 68, the Company shall not be responsible if changes in any of the equipment, operations or procedures of the Company utilized in the provision of DTS render any customer premises equipment provided by a customer obsolete or require modification or alteration of such equipment or systems or otherwise affect its use or performance.

This service is grandfathered to existing customers effective May 1, 2018. This service will not be available to new customers after this date.

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LOCAL DIGITAL SERVICES

6.8 SWITCHED DIGITAL SERVICE

A. General

- 1) Switched Digital Service (SDS) is a digital, switched telecommunications service that provides full duplex, synchronous 56 Kilobit per second (Kbps) information transport using a specially equipped Network Access line.
- 2) SDS service allows customers to originate and complete switched digital 56 Kbps calls by dialing the telephone number of another SDS arranged network access line.

B. Conditions and Limitations

- 1) This service is not provided in conjunction with Paystation or with Centrex services.
- 2) Calls placed from a SDS Network Access Line to a SDS Network Access Line or to non-SDS Network Access Lines will be billed the appropriate Local Service Area Usage rates as provided elsewhere in this Tariff or Message Telecommunications Service charges.
- 3) Digital information transport of less than 56 Kbps may be accomplished as a function of the particular customer premises equipment connected to a SDS specially equipped Network Access line.
- 4) As a result of any interface or technical changes required of the Company due to the possible future adoption of FCC rules under Part 68, the Company shall not be responsible if changes in any of the equipment, operations or procedures of the Company utilized in the provision of SDS service render any customer premises equipment provided by a customer obsolete or require modification or alteration of such equipment or systems or otherwise affect its use or performance.
- 5) SDS service is subject to the availability of appropriate facilities, equipment, and software.

EFFECTIVE: January 13, 2003

ISSUED: November 15, 2002

AMENDMENT NO.: 1

BY: Paul E. Pederson, Vice-President

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LOCAL DIGITAL SERVICES

6.8 SWITCHED DIGITAL SERVICE (Cont'd)

- B. Conditions and Limitations (Cont'd)
 - 6) Until such time as the FCC adopts rules and regulations for the service under Part 68 of the Rules and Regulations, customer premises equipment associated with SDS is subject to the limitations specified in the Bell Communications Research, Inc., Technical Reference, Circuit Switched Digital Capability Network Access Interface Specifications TR-NPL-000457. This Technical Reference and any subsequent changes are available from

Bell communications Research, Inc. Information Operations Center 600 New England Avenue Piscataway, NJ 09854

6.9 RESERVED FOR FUTURE USE

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EFFECTIVE: November 30, 2007

ISSUED: October 31. 2007 AMENDMENT NO.: 715 BY: Jeff Jung, Vice-President

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LOCAL DIGITAL SERVICES

6.9 RESERVED FOR FUTURE USE

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ISSUED: October 31,. 2007 AMENDMENT NO.: 715 BY: Jeff Jung, Vice-President