

**ISDN DIRECT SERVICE**

Effective August 11, 1997, no new installations and changes to existing ISDN Direct Service will be accepted. Customers who are on a Term Payment Plan contract, longer than month to month, on the aforementioned date, will be permitted to expand their service until the expiration of their contract.

**A. General**

ISDN Direct is a telecommunications service that provides Business exchange customers an integrated voice/data communications capability for the transmission of Circuit Switched Voice and Data signals on an incoming and outgoing basis utilizing Integrated Services Digital Network (ISDN) architecture as recommended by the International Telegraph and Telephone Consultative Committee (CCITT).

**B. Provision of Service**

1. All ISDN Direct services require the use of an ISDN Direct Line (2B+D). The two 64 Kbps B Channels are used to carry user information. The 16 Kbps D Channel is used to carry signaling. The service is available from specially equipped digital switching equipment located in the Company's central offices and will be provided where facilities permit and where capacity is available. Where available, a maximum of 8 bearer services are permitted per ISDN Direct Line including a maximum of two B Channel services.
2. A variety of Standard and Optional Features and Capabilities is offered. The availability and functions of the Features and Capabilities may vary by serving central office.
3. All customer-provided equipment used to interface with ISDN Direct is required to conform with the Technical Reference Specifications as used by the Company and found in Technical Reference:

<u>Subject</u>	<u>Technical Reference</u>
Ameritech ISDN Interface Specifications	AM-TR-OAT-000068

The Technical Reference can be obtained from:

APEX Support Team  
(734) 523-7348

4. Distance Extension charges, as specified in paragraph F., will apply for customers served beyond the normal transmission range specified in the Ameritech ISDN Interface Specifications.
5. When the customer's premises and the central office providing ISDN Direct service are located in different Service Areas, Base Rate charges as specified in part 15, section 3 will apply. Customers provided this service arrangement will require three Interexchange Mileage component charges and six Channel Mileage Termination charges for each ISDN Direct line they purchase.

**ISDN DIRECT SERVICE (cont'd)****B. Provision of Service (cont'd)**

6. In cases where the customer's premises are in Independent Telephone Company (ITC) serving area, the Company will access Base Rate Interexchange Mileage charges only to the point of meet with the ITC or intermediate ITC. Charges for ITC services will be assessed by the ITC.
7. Rates and charges for other services normally applied on a per Line basis apply on a per Channel basis for this service.

**C. Optional Payment Plans**

## 1. General

ISDN Direct Service is offered under a Payment Plan which allows customers to pay for the service over a customer selected Payment Period (term). Customers may select a Month-to-Month, 36 Month, 60 Month or 84 Month term. Different monthly rates apply for the duration of each period. The minimum period is one month, unless otherwise specified.

2. In the event there is an increase in the rate levels specified in paragraph F., between the contract execution date and the service installation date, the customer's contract charges will be fixed at the rate level in effect on the contract execution date if the service is installed within 90 days thereof.
3. ISDN Direct lines provided to the customer's premises are also subject to End User Common Line (EUCL) charges as filed for the State of Illinois by the Ameritech Operating Companies in Tariff F.C.C. No. 2. During the term of the contract, the customer shall be liable for all increases in the EUCL charge per connection per month as authorized by the Federal Communications Commission

ISDN Direct Lines also include charges for a Business Direct Line as shown in Part 4, Section 2 when the service is provided to the customer's premises, or a Business Basic exchange port as shown in Part 19, Section 1 when the service is provided from a cross-connection point in the Company's central office. During the term of the contract, the customer shall be liable for all increases in these charges.

4. The rates shown for ISDN Direct are exclusive of local and toll charges and associated Customer Premises Equipment.

**ISDN DIRECT SERVICE (cont'd)****D. Termination, Changes and Renewals**

## 1. Termination

## a. Full Termination

If a customer discontinues the entire ISDN Direct service within the Payment Period currently in effect, Termination Charges will apply. Such charges will be calculated as follows:

1. The difference between the amount the customer would have paid had the entire service been subscribed to on a Month-to-Month basis and what was paid under its contract from the date the service was installed; or
2. The present value of the remainder of the contractual obligation, whichever is less.

Present value shall be calculated at the rate specified in Part 15, Section 3. These charges shall be due and payable in their entirety immediately upon such termination.

## b. Partial Termination

Customers who fail to maintain the number of Lines established by the contract will be liable for that number of Lines at the contract line rate for the remainder of the Term.

- c. Termination Charges are not applicable to changes in the physical location of any of the customer's ISDN Direct Services when the move is within the same central office area. Service Charges, as appropriate, will apply to all changes in the physical location of the customer's service.

## 2. Changes

- a. Change in responsibility for payment of service, as provided in Part 2, Section 3 is permissible.
- b. At any time during their contract period customers may change to a new ISDN Direct contract as long as the new contract is for a term equal to or greater than the time period remaining on their current ISDN Direct Contract. The new contract becomes effective upon execution.
- c. Additions to a customer's ISDN Direct Contract will be billed at the current rate, subject to the terms of the ISDN Direct Contract in effect.
- d. Service Ordering Charges for ISDN Direct will not apply when customers extend the length of their contract period, or change from the Month-to-Month Rate Plan to a 3-, 5-, or 7-year contract. The rates applicable for any such contract shall be those currently in effect for new customers. A Service Ordering Charge-Record Work Only for Business Service applies for any of these changes.

**ISDN DIRECT SERVICE (cont'd)****D. Termination, Changes and Renewals (cont'd)**

## 3. Renewal Options

- a. Prior to completion of the customer contract period, any ISDN Direct Contract period then available may be selected at the rates currently in effect for new customers at the time of the renewal. The renewed contract becomes effective upon execution and the customer will be charged the then current rate for the renewal term.
- b. Upon expiration of a contract term, service may be continued on the Month-to-Month Rate Plan at the rates currently in effect for new customers for month-to-month rates for ISDN Direct pursuant to the Terms and Conditions herein. The customer has no additional service commitment and, consequently, when service is terminated will not be subject to any Termination Charge. Month-to-Month rates will be subject to Company initiated rate adjustments. At a later date, the customer may elect any contract option currently in effect for new customers.
- c. Service Charges for ISDN Direct do not apply to renewals. The monthly Contract rates applicable for the new period are those currently in effect for new customers. A Service Ordering charge – Record Work Only for Business service applies for renewals.

**E. Service Descriptions**1. Circuit Switched Voice Service

Provides the ability to originate and receive voice switched calls, as well as an electronic key set capability over a 64 Kbps B Channel. Voice calls will be subject to the rates as specified in Part 4, Section 2.

- a. The following capabilities are standard:
  1. Analog Line Appearance  
Allows analog lines to have a line appearance on the ISDN CPE with Circuit Switched Voice service. This capability is limited to analog lines that exist in the same switching entity that provides the ISDN Direct service. This capability may result in the loss of some features and/or functionality on the analog line.
  2. Call Hold  
Allows the customer to place a call on hold at the central office, making the Channel available for another call (either incoming or outgoing). This can be done through software in the customer's equipment, or often by depressing a properly programmed button on the customer's telephone.
  3. Call Transfer  
Incoming and outgoing calls may be transferred to other Business lines. The customer initiating the transfer is responsible for any local or toll charges on transferred calls.
  4. Called Number Display  
The called number is displayed on compatible Customer Premises Equipment when an outgoing call is placed.

**ISDN DIRECT SERVICE (cont'd)****E. Service Descriptions (cont'd)**

## 1. Circuit Switched Voice Service (cont'd)

## a. The following capabilities are Standard: (cont'd)

5. Caller ID

The caller's number, if not blocked, is displayed on compatible Customer Premises Equipment when an incoming call is received. The Caller ID feature will forward the calling number from the appropriately equipped originating central office to the customer provided display device.

6. Conference Calling - 3 Way

Allows a user to hold incoming or outgoing calls, initiate another call, then return to the original call, adding on the last party.

7. Denied Origination

Allows call terminations, but prevents the origination of a call.

8. Denied Termination

Allows call originations, but prevents the termination of a call.

9. Hunting

Incoming calls to a busy line appearance are redirected to a pre-determined number to search for a line on which to complete the call. This may be another Circuit Switched Voice channel, another ISDN station or an analog line. The types of Hunting are limited to Series Completion, Multi-Line and Circular. This feature may impact the use of Shared Call Appearance and Multiple Call Appearance in certain servicing central offices.

10. Shared Call Appearance

Provides capability to terminate numbers from one ISDN station to another. These numbers will be configured in a Single Call Arrangement (SCA). SCA allows only one set to be active (either originating or terminating) on the Shared Call Appearance at any given time. Manual exclusion capabilities are available in this arrangement.

11. Multiple Call Appearance

Provides up to four appearances of station's primary Directory Number or secondary number on the same instrument. These appearances may provide additional access from the public network, and/or may originate unique dial tone for additional outgoing access (see Additional Multiple Call Appearance for applications that require more than four call appearances on the same device). This feature may impact the use of Shared Call Appearance in certain serving central offices.

**ISDN DIRECT SERVICE (cont'd)****E. Service Descriptions (cont'd)**

## 1. Circuit Switched Voice Service (cont'd)

## b. The following Voice Capabilities are Optional:

1. Additional Call Offering

Provides notification to an ISDN user that a call directed to that user is present at the service switch, even though no B Channel can be allocated for the call. Once notified, the user may free up a B Channel (by clearing another call or placing another call on hold) in order to accept the additional call. This feature provides similar functionality as that provided by Call Waiting for the analog telephone user.

2. Additional Multiple Call Appearances

Provides additional appearances, beyond the initial four appearances, of a station's primary Directory Number or secondary number on the same instrument. These appearances may provide additional access from the public network, and/or may originate unique dial tone for additional outgoing access.

3. Alternate Answer

This feature automatically forwards incoming calls to a pre-determined, dialable number in the event the called number is not answered within the Company designated parameters.<sup>/1/</sup>

4. Automatic Callback

The number associated with the last incoming call to the customer (called party) may be automatically redialed.<sup>/2/</sup>

5. Busy Line Transfer

This feature automatically forwards incoming calls to a pre-determined, dialable number in the event the called number is busy.<sup>/1/</sup>

6. Call Forwarding-Variable

Allows a customer to activate a feature that automatically transfers all incoming calls to the customer's number to another dialable number and until the customer deactivates the feature.<sup>/3/</sup>

7. Call Screening

Allows customers to designate up to ten numbers from which incoming calls will be automatically completed to a prerecorded announcement circuit which will indicate that calls are not being taken at this time.<sup>/2/</sup>

8. Distinctive Ring

Allows customers to designate up to ten numbers from which incoming calls will have a distinctive ring.<sup>/2/</sup>

/1/ Rates, Terms and Conditions are shown in Part 7, Section 3.

/2/ Rates, Terms and Conditions are shown in Part 7, Section 2.

/3/ Rates, Terms and Conditions are shown in Part 7, Section 1.

**ISDN DIRECT SERVICE (cont'd)****E. Service Descriptions (cont'd)**

1. Circuit Switched Voice Service (cont'd)
  - b. The following voice capabilities are Optional: (cont'd)
    9. Intercom Calling

This Capability allows a voice user to be able to call another voice user within the Electronic Key Telephone Service (EKTS) intercom group without affecting the busy/idle status of any of the Directory Numbers (DNs) of the calling voice user. Intercom groups can consist of just one other voice user, requiring no intercom address, can consist of two to ten voice users, requiring a one digit intercom address, or can consist of two to one hundred voice users, requiring a two digit intercom address. This is a form of abbreviated dialing in that, one voice user can dial another by simply hitting the intercom button and then dialing no digits, one or two digits respectively.
    10. Message Waiting Indicator

Provides the ability to indicate to the ISDN station user that they have a voice or electronic message waiting at their Message Storage and Retrieval (MSR) System. The Message Waiting Indicator may be used to present either a visual or audible signal to the user as determined by the customer's equipment.
    11. Repeat Dialing

The number associated with the last outgoing call placed by the customer (calling party) may be automatically redialed.<sup>/1/</sup>
    12. Secondary Telephone Numbers

Provides an additional number and a call appearance which is not physically terminated, but exists in the programming of Circuit Switched Voice. The additional Directory Number, while not terminated on a dedicated facility, may be accessed from the network, and may originate unique outgoing dial tone from an instrument that has another Directory Number as its primary number.
    13. Station-Controlled Conference (6 Port)

Allows a station user to establish a conference call consisting of a maximum of six conferees, including the originator of the call.
    14. Speed Calling-8<sup>/2/</sup>

Permits a customer to call other numbers by dialing a code rather than the complete number - available in an 8 number capacity.<sup>/2/</sup>
    15. Speed Calling-30<sup>/3/</sup>

Permits a customer to call other numbers by dialing a code rather than the complete number - available in a 30 number capacity.<sup>/2/</sup>

/1/ Rates, Terms and Conditions are shown in Part 7, Section 2.

/2/ Speed Calling 8 is withdrawn for Business customers effective October 31, 2013.

/3/ Speed Calling 30 is withdrawn for Residence customers effective June 1, 2013.

**ISDN DIRECT SERVICE (cont'd)****E. Service Descriptions (cont'd)**

## 2. Circuit Switched Data

Provides the ability to originate and receive switched data calls over the 64 Kbps B Channel. Data Line speeds up to 64 Kbps are permitted. Circuit Switched Data calls are subject to the rates shown in Part 4, Section 2.

## a. The following Capabilities are Standard:

1. Caller ID

The caller's number, if not blocked, is displayed on compatible Customer Premises Equipment when an incoming call is received. The Caller ID feature will forward the calling number from the appropriately equipped originating central office to the customer provided display device.

2. Clear Channel Capability

Clear Channel Capability is provided since all signaling and control functions are handled by the D Channel. This allows all 64 Kbps on each B Channel to be used for customer information over ISDN Direct. Calls may either be 56 Kbps or 64 Kbps depending on the network capabilities in place between ISDN Direct and the distant end of the call.

3. Denied Origination

Allows call terminations, but prevents the origination of a call.

4. Denied Termination

Allows call originations, but prevents the termination of a call.

5. Hunt Group for Shared Data Access

Provides for the automatic search of a group of shared ports to find an available port in response to a connection request. The types of hunting are limited to Series Completion, Multi-Line and Circuit.



**ISDN DIRECT SERVICE (cont'd)****E. Service Descriptions (cont'd)**

## 2. Circuit Switched Data (cont'd)

## b. The following Data Capabilities are Optional:

1. Additional Call Offering

Provides notification to an ISDN user that a call directed to that user is present at the service switch, even though no B Channel can be allocated for the call. Once notified, the user may free up a B Channel (by clearing another call or placing another call on hold) in order to accept the additional call. This feature provides similar functionality as that provided by Call Waiting for the analog telephone user.

2. Alternate Answer

This feature automatically forwards incoming calls to a predetermined dialable number in the event the called number is not answered within the Company's designated parameters.<sup>/1/</sup>

3. Busy Line Transfer

This feature automatically forwards incoming calls to a predetermined dialable number in the event the called number is busy.<sup>/1/</sup>

4. Call Forwarding-Variable

A customer activated Feature that automatically transfers all incoming calls to the customer's number to another dialable number until the customer deactivates the Feature. If transferred to a number served by the same or a different central office switch, multiple calls will be transferred simultaneously provided that there are sufficient facilities to accept the calls.<sup>/2/</sup>

## 3. Alternate Circuit Switched Voice Service/Circuit Switched Data

## a. Where technology permits, provides the ability to originate and receive either Circuit Switched Voice or Circuit Switched Data calls over a single B Channel, but not simultaneously.

## b. The Standard Capabilities and Features are provided as shown in paragraphs E.1 and E.2.

/1/ Rates, Terms and Conditions are shown in Part 7, Section 3.

/2/ Rates, Terms and Conditions are shown in Part 7, Section 1.

**ISDN DIRECT SERVICE<sup>/1/</sup> (cont'd)****F. Rates and Charges**

<u>Description /Billing Code/</u>	<u>Non-recurring Charge</u>	<u>Per Month</u>	<u>Monthly Payment Term Payment Plans</u>		
			<u>36 Months</u>	<u>60 Months</u>	<u>84 Months</u>
ISDN Direct Line /N2Q/	\$50.00	\$ 9.41	\$9.21	\$9.01	\$8.81
ISDN Direct Line National /P2B/	50.00	9.41	9.21	9.01	8.81
Distance extension charge for beyond normal transmission range per ISDN Line /XTN/		22.50			
Circuit Switched Voice Service Element Standard capabilities and features as described in paragraph E, per B Channel equipped /LTQ5X/	15.00	3.00	2.80	2.60	2.40
Additional Multiple Call Appearances, each /ACSPB/	5.00	2.00	-	-	-
Secondary Telephone Numbers, each /D06/	5.00	2.00	-	-	-
Circuit Switched Data Service Element Standard capabilities and features as described in paragraph E, per "B" channel equipped /LTQ6X/	15.00	8.00	7.80	7.60	7.40
Alternate Circuit Switched Voice Service/Circuit Switched Data Service Element Charge Standard capabilities and features as described in paragraph E, per B Channel equipped /LTQ1X/	15.00	9.00	8.80	8.60	8.40
Subsequent changes for Circuit Voice and/or Circuit Switched Data rearrangements to add line appearances or move line or feature appearances, per line per occasion /PRCC/		7.50			
Additional Call Offering /NCO/	5.00	2.50			
Intercom Calling /NZV/	5.00	2.50			
Message Waiting Indicator, each /MCN/	5.00	2.50			
Station Controlled Conference - 6 Port /EQ6/	15.00	14.00			

/1/ Effective August 11, 1997, no new installations and changes to existing ISDN Direct Service will be accepted. Customers who are on a Term Payment Plan contract, longer than month to month, on the aforementioned date, will be permitted to expand their service until the expiration of their contract.

**ISDN DIRECT SERVICE<sup>/1/</sup> (cont'd)****F. Rates and Charges (cont'd)**

2. Service Ordering Charges as specified in Part 3, Section 1 are also applicable for the establishment of ISDN Direct Line.
3. In addition to the above rates, End User Common Line Charges as filed for the State of Illinois with the F.C.C in the Ameritech Operating Companies Tariff F.C.C. No. 2 are applicable.
4. The rate structure for ISDN Direct service shall include charges for an ISDN Direct Line rate element, individual Service Elements (Circuit Switched Voice, Circuit Switched Data and Alternate Circuit Switched Voice/Circuit Switched Data on the B Channel) and Optional Features. End User Common Line (EUCL) Charges as filed for the State of Illinois with the F.C.C. in Ameritech Operating Companies Tariff F.C.C. No. 2 are applicable when provided to the customer's premises or a Basic Business Exchange port as found in Part 19, Section 1 tariff when provided from a cross-connection point in the Company's central office.

/1/ Effective August 11, 1997, no new installations and changes to existing ISDN Direct Service will be accepted. Customers who are on a Term Payment Plan contract, longer than month to month, on the aforementioned date, will be permitted to expand their service until the expiration of their contract.

**NATIONAL INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT**

Effective August 11, 1997, no new installations and changes to existing National Integrated Services Digital Network (ISDN) Direct will be accepted.

**A. Description**

1. National Integrated Services Digital Network (ISDN) Direct is a telecommunications service that provides an integrated voice/data communications capability for the transmission of Circuit Switched Voice and Data signals on an incoming and outgoing basis utilizing Integrated Services Digital Network architecture as recommended by the International Telephone and Telegraph Consultative Committee (CCITT) and the American National Standards Institute (ANSI), as defined by Bellcore Technical References, and consistent with the North American ISDN Users Forum (NIUF) Implementation Agreements (specifically, Implementation Agreements NIU.301 and NIU.302).
2. National ISDN Direct provides the customer with the ability to combine Circuit Switched Voice and Circuit Switched Data services over a single National ISDN Direct line.
3. The two 64 Kbps B Channels are used to transmit any combination of Circuit Switched Voice or Circuit Switched Data services.
4. The D Channel is used to carry network signaling.
5. National ISDN Direct service is available as a Residence service.
6. The service is available from specially equipped digital switching equipment located in the Company's central offices and will be provided where facilities permit and where capacity is available.

**B. Regulations**

1. Where available, a maximum of eight devices may be connected directly to the National ISDN Direct line. Only two of these devices are permitted to access the two B Channels at the same time.
2. A variety of Standard and Optional Features and Capabilities are offered. The availability and functions of the Features may vary by serving central office.
3. National ISDN Direct lines are also subject to End User Common Line (EUCL) charges as filed by the Ameritech Operating Companies in Tariff F.C.C. No. 2. The customer shall be liable for all adjustments to the EUCL charge per National ISDN Direct line, per month, as authorized or mandated by the Federal Communications Commission (or by any regulatory body or commission or court of competent jurisdiction).
4. The rates shown for National ISDN Direct are exclusive of local and toll charges and associated Customer Premises Equipment.
5. Distance Extension charges will apply for customers served beyond the normal transmission range specified in the Ameritech ISDN Interface Specifications.

**NATIONAL INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT (cont'd)****B. Regulations (cont'd)**

6. When the customer's premises and the central office providing National ISDN Direct service are located in different Service Areas, Base Rate charges as specified in Part 15, Section 3 will apply. Customers provided this service arrangement will require three Interexchange Mileage component charges and six Channel Mileage Termination charges for each National ISDN Direct Line they purchase.
7. In cases where the customer's premises are in Independent Telephone Company (ITC) serving areas, the Company will assess Base Rate Interexchange Mileage charges only to the point of meet with the ITC or intermediate ITC. Charges for ITC services will be assessed by the ITC.
8. Rates and charges for other services normally applied on a per Line basis apply on a per Channel basis for this service.
9. All customer provided equipment used to interface with National ISDN Direct service is required to conform with the Technical Reference Specifications as used by the Company and found in the following publication:

<u>Subject</u>	<u>Technical Reference</u>
Ameritech ISDN Interface Specification	AM-TR-OAT-000068

The Technical Reference can be obtained from:

APEX Support Team  
(734) 523-7348

10. Residential ISDN Customer Premises Equipment must be Class B compliant as set forth by the Code of Federal Regulations 47 CFR Part 15, Subpart A, Section 15.3, Paragraph 1.
11. A National ISDN CO Termination is required for each National ISDN Direct Line. This enables the subscriber to configure Circuit Switched service elements on the 2B+D National ISDN Direct line.

**NATIONAL INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT (cont'd)****C. General**

1. Term Payment Plan (TPP)
  - a. National ISDN Direct service is offered under a payment plan which allows the customer to pay for the service over a customer selected Term Payment Plan (TPP). Customers may select a Month-to-Month, 36 Month, 60 Month or 84 Month term. The minimum period is one month. Signing a contract for a term allows customers to secure the then current rate for the duration of the contract.
  - b. In the event there is an increase in the rate levels during the period between the contract execution date and the service installation date, the customer's contract will be fixed at the rate level in effect on the service execution date if the service is installed within 90 days of the contract execution date.
  - c. Month-to-Month rates will be subject to Company initiated rate adjustments.
  - d. National ISDN Direct customers on a Month-to-Month rate plan have no additional service commitments and, consequently, will not be subject to any termination charges upon service termination.
2. Terminations
  - a. If a customer discontinues the entire National ISDN Direct service within the payment plan currently in effect, the customer will be liable for full payment of the service through the end of the current bill period.
  - b. Termination charges are not applicable to changes in the physical location of any of the customer's National ISDN Direct services when the move is within the same central office.
  - c. Service charges may apply to changes in the physical location of the customer's service.
3. Changes
  - a. Customers may change to a new National ISDN Direct contract at any time during the contract period as long as the new contract is equal to or greater in length than the time remaining on the current National ISDN Direct contract being charged. The new contract becomes effective upon execution.
  - b. Additions to a customer's National ISDN Direct contract will be billed at the current rates subject to the terms of the National ISDN Direct contract in effect.
  - c. Service Ordering charges for National ISDN Direct service will not apply when customers extend the length of their contract period.
  - d. Change in responsibility for payment of service, as provided in Part 2, Section 3 is permissible.

**NATIONAL INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT (cont'd)****C. General (cont'd)**

## 4. Renewals

- a. The renewed contract becomes effective upon execution and the customer will be charged the then current rate for the renewal term.
- b. Upon expiration of a contract term, service may be continued on a Month-to-Month plan at the rates currently in effect for new customers for Month-to-Month rates for National ISDN Direct pursuant to the Terms and Conditions herein. The customer has no additional service commitment and, consequently, when service is terminated, will not be subject to any Termination Charges. Month-to-Month rates will be subject to Company initiated rate adjustments.
- c. Service charges for National ISDN Direct do not apply to Renewals. The monthly contract rates applicable for the new period are those currently in effect for new customers. A service ordering charge-Record Work Only applies for Renewals.

**D. Channel Services**

## 1. Circuit Switched Service (Voice Capabilities)

Provides the ability to originate and receive Circuit Switched Voice calls, as well as an Electronic Key Set capability over a 64 Kbps B Channel. Voice calls will be subject to Local and Toll Usage charges based upon the type of service selected, excluding call packs, by the customer. Local Usage charges are specified in Part 4, Section 2. Toll usage charges are specified in Part 9, Section 1.

- a. The following Voice Capabilities are Standard:
  1. Analog Line Appearance  
Allows analog lines to have a line appearance on the ISDN CPE with Circuit Switched Voice service. This Capability is limited to analog lines that exist in the same switching entity that provides the National ISDN Direct service. This Capability may result in the loss of some Features and/or functionality on the analog line.
  2. Call Hold  
Allows the customer to place a call on hold at the central office, making the Channel available for another call (either incoming or outgoing). This can be done through software in the customer's equipment, or often by depressing a properly programmed button on the customer's equipment.
  3. Call Transfer  
Incoming and outgoing calls may be transferred to other lines. The customer initiating the transfer is responsible for any Local or Toll charges on transferred calls.

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**NATIONAL INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT (cont'd)****D. Channel Services (cont'd)**

1. Circuit Switched Service (Voice Capabilities) (cont'd)
  - a. (cont'd)
    4. Called Number Display  
The called number is displayed on compatible Customer Premises Equipment when an outgoing call is placed.
    5. Caller ID  
The caller's number, if not blocked, is displayed on compatible Customer Premises Equipment when an incoming call is received. The Caller ID Feature will forward the calling number from the appropriately equipped originating central office to the customer provided display device.
    6. Conference Calling—3 Way  
Allows a user to hold incoming or outgoing calls, initiate another call, then return to the original call, adding on the last party.
    7. Denied Origination  
Allows call terminations, but prevents the origination of a call.
    8. Denied Termination  
Allows call originations, but prevents the termination of a call.
    9. Hunting  
Incoming calls to a busy line appearance are redirected to a pre-determined number to search for a line on which to complete the call. This may be another Circuit Switched Voice Channel, another ISDN station or an analog line. The types of Hunting are limited to Series Completion, Multi-Line and Circular. This Feature may impact the use of Shared Call Appearance and Multiple Call Appearance in certain serving central offices.
    10. Multiple Call Appearance  
Provides up to four (4) appearances of the station's primary Directory Number or secondary number on the same instrument. These Appearances may provide additional access from the public network, and/or may originate unique dial tone for additional outgoing access (see Additional Multiple Call Appearance for applications that require more than four call appearances on the same device). This Feature may impact the use of Shared Call Appearance in certain serving central offices.
    11. Shared Call Appearance  
Provides the Capability to terminate numbers from one ISDN station to another. These numbers will be configured in a Single Call Arrangement (SCA). SCA allows only one set to be active (either originating or terminating) on the Shared Call Appearance at any given time. Manual Exclusion Capabilities are available in this arrangement.



**NATIONAL INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT (cont'd)****D. Channel Services (cont'd)**

1. Circuit Switched Service (Voice Capabilities) (cont'd)
  - b. The following Voice Capabilities are Optional:
    1. Additional Call Offering

Provides notification to an ISDN user that a call directed to that user is present at the service switch, even though no B Channel can be allocated for the call. Once notified, the user may free up a B Channel (by clearing another call or placing another call on hold) in order to accept the additional call. This Feature provides similar functionality as that provided by Call Waiting for the analog telephone user.
    2. Additional Multiple Call Appearances

Provides Additional Call Appearances, beyond the initial four appearances, of a station's primary Directory Number or secondary number on the same instrument. These Appearances may provide additional access from the public network, and/or may originate unique dial tone for additional outgoing access.
    3. Alternate Answer

This Feature automatically forwards incoming calls to a pre-determined dialable -number in the event the called -number is not answered within the Company designated parameters.<sup>/1/</sup>
    4. Automatic Callback

The number associated with the last incoming call to the customer (called party) may be automatically redialed.<sup>/1/</sup>
    5. Busy Line Transfer

This Feature automatically forwards incoming calls to a pre-determined, dialable number in the event the called number is busy.<sup>/1/</sup>
    6. Call Forwarding-Variable

Allows a customer to activate a Feature that automatically transfers all incoming calls to the customer's number to another dialable number until the customer deactivates the Feature.
    7. Call Screening

Allows customers to designate up to ten numbers from which incoming calls will be automatically completed to a pre-recorded announcement circuit which will indicate that calls are not being taken at this time.<sup>/2/</sup>
    8. Distinctive Ringing

Allows customers to designate up to ten numbers from which incoming calls will have a distinctive ring.<sup>/2/</sup>

/1/ Rates, Terms and Conditions are shown in Part 7, Section 3.

/2/ Rates, Terms and Conditions are shown in Part 7, Section 2.

**NATIONAL INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT (cont'd)****D. Channel Services (cont'd)**

## 1. Circuit Switched Service (Voice Capabilities) (cont'd)

## b. (cont'd)

9. Intercom Calling

This Capability allows a voice user to be able to call another voice user within the Electronic Key Telephone Service (EKTS) intercom group without affecting the busy/idle status of any of the Directory Numbers (DNs) of the calling voice user. Intercom groups can consist of just one other voice user, requiring no intercom address, can consist of two to ten voice users, requiring a one-digit intercom address, or can consist of two to one hundred voice users, requiring a two-digit intercom address. This is a form of abbreviated dialing in that, one voice user can dial another by simply hitting the intercom button and then dialing no digits, one or two digits respectively.

10. Message Waiting Indicator

Provides the ability to indicate to the ISDN station user that they have a voice or electronic message waiting at their Message Storage and Retrieval (MSR) System. The Message Waiting Indicator may be used to present either a visual or audible signal to the user as determined by the customer's equipment.

11. Repeat Dialing

The number associated with the last outgoing call placed by the customer (calling party) may be automatically redialed.<sup>/1/</sup>

12. Secondary Telephone Numbers

Provides an additional number and a call appearance which is not physically terminated, but exists in the programming of Circuit Switched Voice. The additional Directory Number, while not terminated on a dedicated facility, may be accessed from the network, and may originate unique outgoing dial tone from one instrument that has another Directory Number as its primary Directory Number.

13. Station-Controlled Conference (6 Port)

Allows a station user to establish a conference call consisting of a maximum of six conferees, including the originator of the call.

14. Speed Calling-8<sup>/2/</sup>

Permits a customer to call other numbers by dialing a code rather than the complete number; available in an 8 number capacity.<sup>/3/</sup>

15. Speed Calling-30

Permits a customer to call other numbers by dialing a code rather than the complete number; available in a 30 number capacity.<sup>/3/</sup>

/1/ Rates, Terms and Conditions are shown in Part 7, Section 2.

/2/ Speed Calling 8 is withdrawn for Business customers, effective October 31, 2013.

/3/ Rates, Terms and Conditions are shown in Part 7, Section 1.

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**NATIONAL INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT (cont'd)****D. Channel Services (cont'd)**

## 2. Circuit Switched Service (Data Capabilities)

Provides the ability to originate and receive Circuit Switched Data calls over the 64 Kbps B Channel. Data line speeds up to 64 Kbps are permitted. Circuit Switched Data calls are subject to the Residence Usage rates in Part 4, Section 2.

## a. The following Data Capabilities are Standard:

1. Caller ID

The caller's number, if not blocked, is displayed on compatible Customer Premises Equipment when an incoming call is received. The Caller ID Feature will forward the calling number from the appropriately equipped originating central office to the customer provided display device.

2. Clear Channel Capability

Clear Channel Capability is provided since all signaling and control functions are handled by the D Channel. This allows all 64 Kbps on each B Channel to be used for customer information over the National ISDN Direct line. Calls may be either 56 or 64 Kbps depending on the network capabilities in place between the National ISDN Direct line and the distant end of the call.

3. Denied Origination

Allows call terminations, but prevents the origination of a call.

4. Denied Termination

Allows call originations, but prevents the termination of a call.

5. Hunt Group for Shared Data Access

Provides for the automatic search of a group of shared ports to find an available port in response to a connection request. The types of Hunting are limited to Series Completion, Multi-Line and Circular.

**NATIONAL INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT<sup>/1/</sup> (cont'd)****D. Channel Services (cont'd)**

## 2. Circuit Switched Service (Data Capabilities) (cont'd)

## c. The following Data Capabilities are Optional:

1. Additional Call Offering

Provides notification to an ISDN user that a call directed to that user is present at the service switch, even though no B Channel can be allocated for the call. Once notified, the user may free up a B Channel (by clearing another call or placing another call on hold) in order to accept the additional call. This feature provides similar functionality as that provided by Call Waiting for the analog telephone user.

2. Alternate Answer

This Feature automatically forwards incoming calls to a pre-determined dialable number in the event the called number is not answered within the Company designated parameters.<sup>/2/</sup>

3. Busy Line Transfer

This Feature automatically forwards incoming calls to a pre-determined, dialable number in the event the called number is busy.<sup>/2/</sup>

4. Call Forwarding-Variable

A customer activated Feature that automatically transfers all incoming calls to the customer's number to another dialable number until the customer deactivates the Feature. If transferred to a number served by the same or a different central office switch, multiple calls will be transferred simultaneously provided that there are sufficient facilities to accept the calls.<sup>/3/</sup>

**E. Rates and Charges**

1. National ISDN Direct is available as a Residence exchange service. Rates charged for the network access line, EUCL, Usage and Optional Features such as Custom Calling services are based upon the customer's class of service.
2. Service Ordering and Line Connection Charges as specified Part 3, Section 1 are also applicable for the establishment of National ISDN Direct.
3. For subsequent changes for Circuit Switched rearrangements to add line appearances, move line or feature appearance.

/1/ Effective August 11, 1997, no new installations and changes to existing National Integrated Services Digital Network (ISDN) Direct will be accepted.

/2/ Rates, Terms and Conditions are shown in Part 7, Section 3.

/3/ Rates, Terms and Conditions are shown in Part 7, Section 1.

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT<sup>/1/</sup> (cont'd)****E. Rates and Charges (cont'd)**

## 4. Service Elements and Optional Features:

<u>Description /Billing Code/</u>	<u>Nonrecurring Charge</u>	<u>Per Month</u>
National ISDN C.O. Termination	\$50.00	\$14.00
National ISDN Direct Line /P2L/	/2/	/2/
Circuit Switched Service Element, per B Channel /LTF1D/	15.00	4.00
Additional Call Offering /NCO/	5.00	2.50
Additional Multiple Call Appearances, each /ACSPB/	5.00	2.00
Intercom Calling /NZV/	5.00	2.50
Secondary Telephone Numbers, each /DO6/	5.00	2.00
Station Controlled Conference-6 Port /EQ6/	15.00	14.00
Message Waiting Indicator, each /MLN/	5.00	2.50

/1/ Effective August 11, 1997, no new installations and changes to existing National Integrated Services Digital Network (ISDN) Direct will be accepted.

/2/ Apply Network Access Line charges for Residence exchange rates as specified in Part 4, Section 2.

**ISDN RESIDENTIAL SERVICE**

Effective November 1, 2012, no further installations, moves, rearrangements, or changes of any type will be made to ISDN Residential Service. Customers of record on November 1, 2012 may continue their service as long as such service remains at the location at which it was being furnished on the aforementioned date. In the event that these services are discontinued at their present location for any reason, they will not be reestablished. The preceding supersedes all of the rules, terms and conditions that follow.

**A. Description**

Integrated Services Digital Network (ISDN) Residential Service is a telecommunications service that provides an integrated voice/data communications capability for the transmission of Circuit Switched Voice and Data signals on an incoming and outgoing basis utilizing Integrated Services Digital Network architecture as recommended by the International Telecommunications Union (ITU) and the American National Standards Institute (ANSI), as defined by Telcordia Technical References, and consistent with the North American ISDN Users Forum (NIUF) Implementation Agreements. ISDN Residential Service provides the customer with the ability to combine Circuit Switched Voice and Circuit Switched Data services over a single ISDN Residential Service line. All ISDN Residential services require the use of an ISDN line (2B+D). The two 64 Kbps B Channels are used to transmit any combination of Circuit Switched Voice and/or Circuit Switched Data. The D Channel is used to carry signaling only.

**B. Definitions**Circuit Switched Capability (Alternate Voice/Circuit Switched Data)

Where technology permits, this Capability provides the ability to originate and receive either Circuit Switched Voice or Circuit Switched Data calls over a single B Channel, but not simultaneously. Circuit Switched Voice and Data calls are subject to additional charges (See Other Applicable Charges and Payments).

Circuit Switched Capability (Data)

Provides the ability to originate and receive Circuit Switched Data calls over the 64 Kbps B Channel. Data line speeds up to 64 Kbps are permitted. Circuit Switched Data calls are subject to additional charges (see Other Applicable Charges and Payments).

Circuit Switched Capability (Voice)

Provides the ability to originate and receive Circuit Switched Voice calls, as well as an Electronic Key Set capability over the 64 Kbps B Channel. Circuit Switched Voice calls are subject to additional charges. (See Other Applicable Charges and Payments.)

B Channel

A 64 Kbps portion of an ISDN Residential Service line used for information transfer (voice/data) from user to user.

D Channel

A 16 Kbps portion of an ISDN Residential Service line used for out of band signaling and control of the B Channels.

**ISDN RESIDENTIAL SERVICE (cont'd)****B. Definitions (cont'd)**ISDN Line

The physical connection between and including the customer Network Interface and the ISDN CO Termination.

ISDN CO Termination

Terminates the ISDN Line in the serving central office.

ISDN Ordering Codes (IOC)

Refers to a very specific combination of National ISDN Services and Features. Each IOC includes information about the Features, number of Directory Numbers (DNs), DN appearances, number of Call Appearances, number of Terminal Endpoint Identifiers (TEIs) and number of Service Profile Identifiers (SPIDs).

**C. Terms and Conditions**

1. Each device with Circuit Switched services will have a unique identifier, known as a Service Profile Identifier (SPID), and a unique primary Directory Number (DN). For Customer Premises Terminal Equipment employing multiple SPIDs, each assigned SPID counts as a device.
2. Unique sets of Standard and Optional Features and Capabilities are specified for each IOC. The availability and functions of the Features may vary by serving central office.
3. ISDN Residential Service is available as a Residence service.
4. The service is available from specially equipped digital switching equipment located in the Company's central offices and will be provided where facilities permit and where capacity is available.
5. Residential ISDN Customer Premises Equipment must be Class B compliant as set forth by the Code of Federal Regulations 47 CFR Part 15, Subpart A, Section 15.3 Paragraph I.
6. An ISDN line and an ISDN CO Termination are required for each IOC ordered.
7. This service only supports National compliant Customer Premises Equipment.
8. ISDN services, Features and functionality are only available via defined ISDN Ordering Codes (IOCs) with this service.
9. Charges for Features associated with an IOC may not be applicable, based on the technology of the serving central office.
10. A minimum service period of one (1) month is required for each ISDN line.

**ISDN RESIDENTIAL SERVICE (cont'd)**

**D. Features**

1. ISDN Ordering Codes (IOCs)

The following table describes each ISDN Ordering Code, channel configurations and available Features:

<u>Code</u>	<u>Description</u>	<u>Features</u>
B	Circuit switched data on one B Channel	Circuit Data Features Calling Number Identification Redirecting Number Delivery
C	Alternate Voice/ Circuit Switched Data on one B Channel	Voice and Circuit Data Features Calling Number Identification Redirecting Number Delivery
G <sup>/1/</sup>	Voice on one B Channel and Circuit Switched Data on the other B Channel	Voice Features Additional Call Offering Call Hold Calling Number Identification Flexible Calling Redirecting Number Delivery Circuit Data Features Calling Number Identification Redirecting Number Delivery
I	Circuit Switched Data on two B Channels	Circuit Data Features Calling Number Identification Redirecting Number Delivery
J	Alternate Voice/ Circuit Switched Data on one B Channel and Circuit Switched Data on the other B Channel	Voice and Circuit Data Features Calling Number Identification Redirecting Number Delivery
K	Alternate Voice/Circuit Switched Data on one B Channel and Circuit Switched Data on the other B Channel	Voice Features Additional Call Offering Call Hold Calling Number Identification Flexible Calling Redirecting Number Delivery Circuit Data Features Calling Number Identification Redirecting Number Delivery

/1/ Effective August 31, 1998, no new installations and changes to existing will be accepted.



**ISDN RESIDENTIAL SERVICE (cont'd)**

**D. Features (cont'd)**

1. ISDN Ordering Codes (IOCs) (cont'd)

<u>Code</u>	<u>Description</u>	<u>Features</u>
M	Alternate Voice/ Circuit Switched Data on two B Channels	Voice and Circuit Data Features Calling Number Identification Redirecting Number Delivery
R	Circuit Switched Data on two B Channels	Circuit Data Features Calling Number Identification Redirecting Number Delivery
S	Alternate Voice/Circuit Switched Data on two B Channels	Voice and Circuit Data Features Calling Number Identification Redirecting Number Delivery
U (EZ ISDN1)	Alternate Voice/Circuit Switched Data on two B Channels	Voice Features Additional Call Offering Call Hold Call Forwarding Variable Calling Number Identification Flexible Calling Redirecting Number Delivery Circuit Data Features Calling Number Identification Redirecting Number Delivery
V (EZ ISDN1A)	Alternate Voice/Circuit Switched Data on two B Channels	Voice Features Additional Call Offering Advanced Call Forwarding Call Hold Calling Number Identification Flexible Calling Redirecting Number Delivery Circuit Data Features Calling Number Identification Redirecting Number Delivery
B1 <sup>/1/</sup> B2 <sup>/1/</sup> B3 <sup>/1/</sup>	Circuit Switched Data on one B Channel	Circuit Data Features Calling Number Identification Redirecting Number Delivery

/1/ Effective August 31, 1998, no new installations and changes to existing will be accepted.

**ISDN RESIDENTIAL SERVICE (cont'd)****D. Features (cont'd)**

## 1. ISDN Ordering Codes (IOCs) (cont'd)

<u>Code</u>	<u>Description</u>	<u>Features</u>
C1 <sup>/1/</sup> C2 <sup>/1/</sup> C3 <sup>/1/</sup>	Alternate Voice/Circuit Switched Data on one B Channel	Voice and Circuit Data Features Calling Number Identification Redirecting Number Delivery
G1 <sup>/1/</sup>	Voice Capabilities on one B Channel and Circuit Switched Data Capabilities on the other B Channel	Voice Features Call Hold Circuit Data Features None
G2 <sup>/1/</sup>	Voice Capabilities on one B Channel and Circuit Switched Data Capabilities on the other B Channel	Voice Features Additional Call Offering Call Hold Calling Number Identification Flexible Calling Redirecting Number Delivery Circuit Data Features Calling Number Identification Redirecting Number Delivery
G3 <sup>/1/</sup> G4 <sup>/1/</sup>	Voice Capabilities on one B Channel and Circuit Switched Data Capabilities on the other B Channel	Voice and Circuit Data Features Additional Call Offering Call Appearance Call Handling Call Forwarding Busy Line Call Forwarding Don't Answer Call Forwarding Variable Call Hold Calling Number Identification Flexible Calling Message Service Redirecting Number Delivery Circuit Data Features Calling Number Identification Redirecting Number Delivery
G5 <sup>/1/</sup>	Voice Capabilities on one B Channel and Circuit Switched Data Capabilities on the other B Channel	Voice Features Additional Call Offering Call Hold Calling Number Identification Flexible Calling Redirecting Number Delivery Circuit Data Features Calling Number Identification Redirecting Number Delivery

/1/ Effective August 31, 1998, no new installations and changes to existing will be accepted.

**ISDN RESIDENTIAL SERVICE (cont'd)**

**D. Features (cont'd)**

1. ISDN Ordering Codes (IOCs) (cont'd)

<u>Code</u>	<u>Description</u>	<u>Features</u>
H1 <sup>/1/</sup> H2 <sup>/1/</sup>	Voice Capabilities on one B Channel and Circuit Switched Data Capabilities on the other B Channel	Voice Features Automatic Recall Automatic Callback Call Appearance Call Handling Call Forwarding Busy Line Call Forwarding Don't Answer Call Forwarding Variable Call Hold Calling Number Identification Flexible Calling Message Service Redirecting Number Delivery Secondary Telephone Number Circuit Data Features Calling Number Identification Redirecting Number Delivery
H6 <sup>/1/</sup>	Voice Capabilities on one B Channel and Circuit Switched Data Capabilities on the other B Channel	Voice Features Call Appearance Call Handling Call Hold Calling Number Identification Flexible Calling Redirecting Number Delivery Secondary Telephone Number Circuit Data Features Calling Number Identification Redirecting Number Delivery
I1 <sup>/1/</sup> I2 <sup>/1/</sup> I3 <sup>/1/</sup>	Circuit Switched Data on two B Channels	Circuit Data Features Calling Number Identification Redirecting Number Delivery

/1/ Effective August 31, 1998, no new installations and changes to existing will be accepted.

**ISDN RESIDENTIAL SERVICE (cont'd)**

**D. Features (cont'd)**

1. ISDN Ordering Codes (IOCs) (cont'd)

<u>Code</u>	<u>Description</u>	<u>Features</u>
J1 <sup>/1/</sup> J2 <sup>/1/</sup> J3 <sup>/1/</sup> J4 <sup>/1/</sup> J5 <sup>/1/</sup> J6 <sup>/1/</sup>	Alternate Voice/Circuit Switched Data on one B Channel and Circuit Switched Data on other B Channel	Voice and Circuit Data Features Calling Number Identification Redirecting Number Delivery
K1 <sup>/1/</sup>	Alternate Voice/Circuit Switched Data on one B Channel and Circuit Switched Data on other B Channel	Voice Features Additional Call Offering Call Hold Calling Number Identification Flexible Calling Redirecting Number Delivery Circuit Data Features Calling Number Identification Redirecting Number Delivery
K2 <sup>/1/</sup>	Alternate Voice/Circuit Switched Data on two B Channels	Voice Features Additional Call Offering Call Hold Calling Number Identification Flexible Calling Redirecting Number Delivery Circuit Data Features Calling Number Identification Redirecting Number Delivery
K3 <sup>/1/</sup>	Alternate Voice/Circuit Switched Data on one B Channel and Circuit Switched Data on the other B Channel	Voice Features Additional Call Offering Call Hold Calling Number Identification Flexible Calling Redirecting Number Delivery Circuit Data Features Calling Number Identification Redirecting Number Delivery
M1 <sup>/1/</sup> M2 <sup>/1/</sup> M4 <sup>/1/</sup> M5 <sup>/1/</sup>	Alternate Voice/Circuit Switched Data on two B Channels	Voice and Circuit Data Features Calling Number Identification Redirecting Number Delivery

/1/ Effective August 31, 1998, no new installations and changes to existing will be accepted.

**ISDN RESIDENTIAL SERVICE (cont'd)****D. Features (cont'd)**

## 1. ISDN Ordering Codes (IOCs) (cont'd)

<u>Code</u>	<u>Description</u>	<u>Features</u>
M3 <sup>/1/</sup>	Alternate Voice/Circuit Switched Data on two B Channels	Voice Features Additional Call Offering Call Hold Calling Number Identification Flexible Calling Redirecting Number Delivery Circuit Data Features Calling Number Identification Redirecting Number Delivery
M6 <sup>/1/</sup>	Alternate Voice/Circuit Switched Data on two B Channels	Voice and Circuit Data Features Calling Number Identification Redirecting Number Delivery
R1 <sup>/1/</sup>	Circuit Switched Data on two B Channels	Circuit Data Features Calling Number Identification Redirecting Number Delivery
S1	Alternate Voice/Circuit Switched Data on two B Channels	Voice Features Additional Call Offering Call Hold Calling Number Identification Redirecting Number Delivery Circuit Data Features Calling Number Identification Redirecting Number Delivery
S2 <sup>/1/</sup>	Alternate Voice/Circuit Switched Data on two B Channels	Voice Features Basic EKTS Busy Line Transfer Call Hold Calling Number Identification Flexible Calling Redirecting Number Delivery Secondary Telephone Number Shared Call Appearance Circuit Data Features Calling Number Identification Redirecting Number Delivery

/1/ Effective August 31, 1998, no new installations and changes to existing will be accepted.

**ISDN RESIDENTIAL SERVICE (cont'd)****D. Features (cont'd)**

## 2. Features and Capabilities

Additional Call Offering

Provides notification to an ISDN user that a call directed to that user is present at the service switch, even though no B Channel can be allocated for the call. Once notified, the user may free up a B Channel (by clearing another call or placing another call on hold) in order to accept the additional call. This Feature provides similar functionality as that provided by Call Waiting for the analog telephone user.

Advanced Call Forwarding

Provides for the assignment of the following features:

- Call Forwarding Variable (See Custom Calling Features.)
- Call Forwarding Don't Answer (See Complementary Network Services.)
- Call Forwarding Busy Line (See Complementary Network Services.)
- Message Waiting Indicator

Advanced Custom Calling Features<sup>/1/</sup>

(See Other Applicable Charges and Payments.)

- Automatic Callback
- Repeat Dialing (Automatic Recall)

Automatic Recall<sup>/1/</sup>

(See Advanced Custom Calling Features.)

Basic Electronic Key Telephone Service (EKTS)<sup>/1/</sup>

Basic EKTS supports multiple Directory Numbers (DNs) and the sharing of DNs between other EKTS users or terminals, in an EKTS group. Basic EKTS allows only one Call Appearance for a DN, so only one call may be associated with a given DN. Basic EKTS and Call Appearance Call Handling (CACH) EKTS terminals may be members of the same EKTS group, however a DN which is shared across Basic EKTS and CACH EKTS terminals may only be assigned one Call Appearance. EKTS is only used to manage voice calls. An EKTS primary DN can be an Alternate Voice/Data DN.

Call Appearance Call Handling<sup>/1/</sup> (CACH)

Call Appearance Call Handling (CACH) supports multiple Directory Numbers (DNs), Multiple Call Appearances of each DN, and the sharing of one or more Call Appearances of one or more DN with other users or terminals, within the same EKTS group. The quantity of calls which may be associated with a given DN is the number of Call Appearances assigned to the DN. Up to four (4) Call Appearances may be assigned as standard provisioning. Basic EKTS and CACH EKTS terminals may be members of the same EKTS group; however, a DN which is shared across Basic EKTS and CACH EKTS terminals may only be assigned one Call Appearance. EKTS is only used to manage voice calls. An EKTS primary DN can be an Alternate Voice/Data DN.

/1/ Effective August 31, 1998, no new installations and changes to existing will be accepted.

**ISDN RESIDENTIAL SERVICE (cont'd)****D. Features (cont'd)**

## 2. Features and Capabilities (cont'd)

Call Hold

Allows the customer to place a call on hold at the central office, making the Channel available for another call (either incoming or outgoing). This can be done through software in the customer's equipment or, often, by depressing a properly programmed button on the customer's equipment.

Call Transfer

(See Flexible Calling.)

Called Number Display

Displays the Called Number on compatible Customer Premises Equipment when an outgoing call is placed.

Caller ID

(See Calling Number Identification.)

Calling Number Identification

Displays the caller's number, if not blocked, on compatible Customer Premises Equipment when an incoming call is received. This feature will forward the Calling Number from the appropriately equipped originating central office to the customer-provided display device.

Clear Channel Capability

Allows all 64 Kbps on each B Channel to be used for customer information, since all signaling and control functions are handled by the D Channel, over the ISDN Residential line. Calls may be either 56 or 64 Kbps depending on the network capabilities in place between the ISDN Residential line and the distant end of the call.

Complementary Network Services

(See Other Applicable Charges and Payments.)

Alternate Answering (Call Forwarding Don't Answer)

Busy Line Transfer (Call Forwarding Busy Line)

Conference Calling - 3 Way

(See Flexible Calling.)

Custom Calling Features

(See Other Applicable Charges and Payments.)

Call Forwarding Busy Line (See Complementary Network Services.)

Call Forwarding Don't Answer (See Complementary Network Services.)

Call Forwarding Variable

/1/ Effective August 31, 1998, no new installations and changes to existing will be accepted.

**ISDN RESIDENTIAL SERVICE (cont'd)****D. Features (cont'd)**

## 2. Features and Capabilities (cont'd)

Flexible Calling

Flexible Calling is a set of Capabilities that allows an ISDN user to establish and control two concurrent calls using a single B Channel. Conference allows a user to hold incoming or outgoing calls, initiate another call, then return to the original call, adding on the last party. Transfer allows incoming and outgoing calls to be transferred to other lines. The customer initiating the transfer is responsible for any local or toll charges on transferred calls. Drop allows the user to drop the last party added to a conference call.

Message Service

(See Message Waiting Indicator.)

Message Waiting Indicator

Provides the ability to indicate to the ISDN station user that they have a voice or electronic message waiting at their Message Storage and Retrieval (MSR) System. The Message Waiting Indicator may be used to present either a visual or audible signal, for the specified IOC or CPE, to the user as determined by the customer's equipment and central office capability.

Redirecting Number Delivery

For incoming calls forwarded to an ISDN user, Redirecting Number Delivery delivers to the ISDN user's compatible Customer Premises Equipment the Directory Number (if not blocked), associated with the forwarding party and the reason why the call was forwarded.

Secondary Telephone Number<sup>/1/</sup>

Provides an additional number and one Call Appearance which is not physically terminated, but exists in the programming of Circuit Switched Voice. The additional Directory Number, while not terminated on a dedicated facility, may be accessed from the network, and may originate unique outgoing dial tone from one instrument that has another Directory Number as its primary Directory Number.

Shared Call Appearance<sup>/1/</sup>

Provides the capability for a Directory Number Appearance to be shared by two or more ISDN stations. A user may bridge onto an active call on the shared appearance. For call privacy, manual bridge exclusion capabilities are available to prevent other stations from bridging on to selected calls.

/1/ Effective August 31, 1998, no new installations and changes to existing will be accepted.



**ISDN RESIDENTIAL SERVICE (cont'd)**

**E. Technical References**

All Customer Premises Equipment used to interface with ISDN Residential Service is required to conform with the Technical Reference Specifications used by the Company

<u>Subject</u>	<u>Technical Reference</u>
ISDN Interface Specification	AM-TR-NIS-000068

The Technical Reference can be obtained from:

APEX Support Team  
(734) 523-7348

**F. Prices**

The prices shown for ISDN Residential Service are exclusive of Local and Toll charges and associated Customer Premises Equipment. Charges for other services or features normally applied on a per line basis apply on a per number basis for this service. ISDN Residential Service lines are also subject to End User Common Line (EUCL) charges. (See Other Applicable Charges and Payments.) The customer shall be liable for all adjustments to the EUCL charge per ISDN Residential Service line, per month, as authorized or mandated by the Federal Communications Commission (or by any regulatory body or commission or court of competent jurisdiction). Charges for the loop, EUCL, Usage and Optional Features are based upon the customer's class of service. Charges for Usage and Optional Features will be applied on a per Channel service capability basis. When the customer's premises and the central office providing ISDN Residential Service are located in different Service Areas, Base Rate charges will apply. (See Other Applicable Charges and Payments.) Customers provided this service arrangement will require three Interexchange Mileage component charges and six Channel Mileage Termination charges for each ISDN Residential Service line they purchase. In cases where the customer's premises are in Independent Telephone Company (ITC) serving areas, the Company will assess Base Rate Interexchange Mileage charges only to the point of meet with the ITC or intermediate ITC. Charges for ITC services will be assessed by the ITC.

**ISDN RESIDENTIAL SERVICE<sup>/1/</sup> (cont'd)**

**F. Prices (cont'd)**

1. Service Elements

<u>Description /Billing Code/</u>	<u>Nonrecurring Charge</u>	<u>Monthly Price</u>	
ISDN CO Termination /P2B/	\$50.00	\$16.00	
ISDN Line /P2L/			(l)
Access Area A		18.00	
Access Area B		18.00	
Access Area C		18.00	(l)
Circuit Switched Capability, per B Channel /BSB1D/	15.00	4.00	
Additional Call Offering, each /NCO/	5.00	2.50	
Advanced Custom Calling Features <sup>/2/</sup>			
Automatic Callback			
Repeat Dialing			
(See Other Applicable Charges and Payments.)			
Complementary Network Services			
Alternate Answering			
Busy Line Transfer			
(See Other Applicable Charges and Payments.)			
Custom Calling Features			
Call Forwarding Variable			
(See Other Applicable Charges and Payments.)			
Message Waiting Indicator, each /MLN/	5.00	2.50	
Secondary Telephone Number, each /DO6 <sup>/2/</sup>	5.00	2.00	

/1/ Effective November 1, 2012, no further installations, moves, rearrangements, or changes of any type will be made to ISDN Residential Service. Customers of record on November 1, 2012 may continue their service as long as such service remains at the location at which it was being furnished on the aforementioned date. In the event that these services are discontinued at their present location for any reason, they will not be reestablished. The preceding supersedes all of the rules, terms and conditions contained herein.

/2/ Effective August 31, 1998, no new installations and changes to existing will be accepted.

**ISDN RESIDENTIAL SERVICE (cont'd)**

**F. Prices (cont'd)**

2. Other Applicable Charges and Payments

Service Ordering and Line Connection charges are also applicable for the establishment of ISDN Residential service.

References:

<u>Service</u>	<u>Reference</u>
Advanced Custom Calling Features <sup>/1/</sup>	Part 7, Section 2
Base Rate Service	Part 15, Section 3
Complementary Network Services	Part 7, Section 3
Custom Calling Features	Part 7, Section 1
End User Common Line (EUCL)	Ameritech Operating Companies Tariff F.C.C. No. 2, Section 4
	(C)
	(D)
Service Ordering and Line Connection	Part 3, Section 1
Usage; Minutes of Use	Part 4, Section 2

/1/ Effective August 31, 1998, no new installations and changes to existing will be accepted.

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE**

/1/

Effective September 1, 2021, Integrated Services Digital Network (ISDN) Direct Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. The Company will continue to provide existing service to existing customers until the expiration of a customer's term agreement. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly Extension rates until the service is discontinued. The Company currently plans to discontinue this service on or after September 1, 2023. The Company will make customer-specific accommodations to the extent required by 220 ILCS 5/13-406.1.

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**A. Description**

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Integrated Services Digital Network (ISDN) Direct Service provides an integrated voice/data communications capability for the transmission of Circuit Switched Voice and Data signals on an incoming and outgoing basis utilizing Integrated Services Digital Network architecture as recommended by the International Telecommunications Union (ITU) and the American National Standards Institute (ANSI), as defined by Telcordia Technical References, and consistent with the North American ISDN Users Forum (NIUF) Implementation Agreements.

ISDN Direct Service provides the customer with the ability to combine Circuit Switched Voice and Circuit Switched Data services over a single ISDN Direct Service Line.

All ISDN Direct services require the use of an ISDN Line (2B+D). The two 64 Kbps "B" channels are used to transmit any combination of Circuit Switched Voice or Circuit Switched Data Services. The "D" channel is used to carry signaling only.

Circuit Switched Capability (Alternate Voice/Circuit Switched Data)

Where technology permits, this capability provides the ability to originate and receive either Circuit Switched Voice or Circuit Switched Data calls over a single "B" channel, but not simultaneously. Circuit Switched Voice and Data calls are subject to additional charges. (See Other Applicable Charges and Payments.)

Circuit Switched Capability (Data)

Provides the ability to originate and receive Circuit Switched Data calls over the 64 Kbps "B" channel. Data line speeds up to 64 Kbps are permitted. Circuit Switched Data calls are subject to additional charges. (See Other Applicable Charges and Payments.)

Circuit Switched Capability (Voice)

Provides the ability to originate and receive Circuit Switched Voice calls, as well as an electronic key set capability over the 64 Kbps "B" channel. Circuit Switched Voice calls are subject to additional charges. (See Other Applicable Charges and Payments.)

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/1/ Material formerly appeared in Part 17, Section 1.

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE (cont'd)**

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**B. Definitions**B Channel

A 64 Kbps portion of an ISDN Direct Service Line used for information transfer (voice/data) from user to user.

D Channel

A 16 Kbps portion of an ISDN Direct Service Line used for out of band signaling and control of the "B" channels.

Flat Rate ISDN

A plan that provides a flat monthly rate for unlimited local usage (Band A and B) on Circuit Switched Voice and Circuit Switched Data traffic. Flat Rate ISDN is provided using the same technology, network and switching architecture as non-Flat Rate ISDN Direct.

ISDN Direct Line

The physical connection between and including the customer Network Interface and the ISDN Direct CO Termination.

ISDN CO Termination

Terminates the ISDN Direct Line in the serving central office.

ISDN Ordering Codes (IOC)

Refers to a very specific combination of National ISDN services and features. Each IOC includes information about the Features, number of Directory Numbers (DNs), DN appearances, number of Call Appearances, number of Terminal Endpoint Identifiers (TEIs) and number of Service Profile Identifiers (SPIDs).

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/1/ Material formerly appeared in Part 17, Section 1.

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE (cont'd)**

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**C. Terms and Conditions**

1. Multiple Circuit Switched B Channel devices are allowed, where facilities permit, on an ISDN Direct Service Line. The Company supports up to four (4) devices to share the B channels, per ISDN Direct Service Line. Each device with Circuit Switched services will have a unique identifier, known as a Service Profile Identifier (SPID), and a unique primary directory number. For customer premises terminal equipment employing multiple SPIDs, each assigned SPID counts as a device.
2. A variety of standard and optional features and capabilities are offered. The availability and functions of the features may vary by serving central office.
3. An ISDN CO Termination is required for each ISDN Direct Line. This enables the subscriber to configure circuit switched service elements on the 2B+D ISDN Direct Line.
4. ISDN Direct Service is available as a Business service.
5. The service is available from specially equipped digital switching equipment located in the Company's central offices and will be provided where facilities permit and where capacity is available.
6. ISDN services, features and functionality are available via defined ISDN Ordering Codes (IOCs) with this service. ISDN services, features and functionality ordered, not specifying an IOC, will incur a Custom Ordering Charge per ISDN Direct Service Line.
7. This service only supports National compliant customer premises equipment.
8. An ISDN Line and an ISDN CO Termination are required for each IOC ordered.
9. Charges for features associated with an IOC may not be applicable, based on the technology of the serving central office.
10. A minimum service period of one (1) month is required for each ISDN Direct Line.
11. Unique sets of standard and optional features and capabilities are specified for each IOC. The availability and functions of the features may vary by serving central office.

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/1/ Material formerly appeared in Part 17, Section 1.

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE (cont'd)**

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**D. Features**

## 1. ISDN Ordering Codes (IOCs)

The following tables describe each ISDN Ordering Code, channel configurations and available features:

<b><u>Code</u></b>	<b><u>Description</u></b>	<b><u>Features</u></b>
B	Circuit Switched Data on one B Channel	Circuit Data Features Calling Number Identification Redirecting Number Delivery
C	Alternate Voice/ Circuit Switched Data on one B Channel	Voice and Circuit Data Features Calling Number Identification Redirecting Number Delivery
I	Circuit Switched Data on two B Channels	Circuit Data Features Calling Number Identification Redirecting Number Delivery
J	Alternate Voice/ Circuit Switched Data on one B Channel and Circuit Switched Data on the other B Channel	Voice and Circuit Data Features Calling Number Identification Redirecting Number Delivery
K	Alternate Voice/ Circuit Switched Data on one B channel and Circuit Switched Data on the other B channel	Voice Features Additional Call Offering Call Hold Calling Number Identification Flexible Calling Redirecting Number Delivery Circuit Data Features Calling Number Identification Redirecting Number Delivery
M	Alternate Voice/ Circuit Switched Data on two B Channels	Voice and Circuit Data Features Calling Number Identification Redirecting Number Delivery
R	Circuit Switched Data on two B Channels	Circuit Data Features Calling Number Identification Redirecting Number Delivery
S	Alternate Voice/ Circuit Switched Data on two B Channels	Voice and Circuit Data Features Calling Number Identification Redirecting Number Delivery

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/1/ Material formerly appeared in Part 17, Section 1.

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE (cont'd)**

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**D. Features (cont'd)**

1. ISDN Ordering Codes (IOCs) (cont'd)

<u>Code</u>	<u>Description</u>	<u>Features</u>
U (EZ ISDN1)	Alternate Voice/ Circuit Switched Data on two B Channels	Voice Features Additional Call Offering Call Hold Call Forwarding Variable Calling Number Identification Flexible Calling Redirecting Number Delivery Circuit Data Features Calling Number Identification Redirecting Number Delivery
V (EZ ISDN1A)	Alternate Voice/ Circuit Switched Data on two B Channels	Voice Features Additional Call Offering Advanced Call Forwarding Call Hold Calling Number Identification Flexible Calling Redirecting Number Delivery Circuit Data Features Calling Number Identification Redirecting Number Delivery
S1	Alternate Voice/ Circuit Switched Data on two B channels	Voice Features Additional Call Offering Call Hold Calling Number Identification Redirecting Number Delivery Circuit Data Features Calling Number Identification Redirecting Number Delivery

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/1/ Material formerly appeared in Part 17, Section 1.



**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE (cont'd)**

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**D. Features (cont'd)**

2. Features and Capabilities

<u>Features</u>	<u>Capability</u>	
	<u>Voice</u>	<u>Data</u>
Additional Call Offering	Optional	Optional
Additional Multiple Call Appearances	Optional	N/A
Advanced Custom Calling Features	Optional	N/A
Basic Electronic Key Telephone Service (EKTS)	Standard	N/A
Call Hold	Standard	N/A
Call Transfer	Standard	N/A
Called Number Display	Standard	N/A
Caller ID	Standard	Standard
Calling Number Identification	Standard	N/A
Clear Channel Capability	N/A	Standard
Complementary Network Services	Optional	Optional
Conference Calling - 3 Way	Standard	N/A
Custom Calling Features	Optional	Optional
Denied Origination	Standard	Standard
Denied Termination	Standard	Standard
Flexible Calling	Standard	N/A
Hunt Group for Shared Data Access	N/A	Standard
Hunting	Standard	N/A
Intercom Calling	Optional	N/A
Message Waiting Indicator	Optional	N/A
Multiple Call Appearance	Standard	N/A
Redirecting Number Delivery	Standard	N/A
Secondary Telephone Number	Optional	N/A
Shared Call Appearance	Standard	N/A
Station-Controlled Conference (6 Port)	Optional	N/A

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/1/ Material formerly appeared in Part 17, Section 1.

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE (cont'd)**

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**D. Features (cont'd)**

## 2. Features and Capabilities (cont'd)

Additional Call Offering

Provides notification to an ISDN user that a call directed to that user is present at the service switch, even though no B Channel can be allocated for the call. Once notified, the user may free up a B Channel (by clearing another call or placing another call on hold) in order to accept the additional call. This feature provides similar functionality as that provided by Call Waiting for the analog telephone user.

Additional Multiple Call Appearances

Provides Additional Call Appearances, beyond the initial four appearances, of a station's primary directory number or secondary number on the same instrument. These appearances may provide additional access from the public network, and/or may originate unique dial tone for additional outgoing access.

Advanced Call Forwarding

Provides for the assignment of the following features:

- Call Forwarding Variable (See Custom Calling Features.)
- Call Forwarding Don't Answer (See Complementary Network Services.)
- Call Forwarding Busy Line (See Complementary Network Services.)
- Message Waiting Indicator

Advanced Custom Calling Features

(See Other Applicable Charges and Payments.)

- Automatic Callback
- Call Screening
- Repeat Dialing (Automatic Recall)

Automatic Recall

(See Advanced Custom Calling Features.)

Basic Electronic Key Telephone Service (EKTS)

Basic EKTS supports multiple Directory Numbers (DNs) and the sharing of DNs between other EKTS users or terminals, in an EKTS group. Basic EKTS allows only one call appearance for a DN, so only one call may be associated with a given DN.

Basic EKTS and Call Appearance Call Handling (CACH) EKTS terminals may be members of the same EKTS group; however, a DN which is shared across Basic EKTS and CACH EKTS terminals may only be assigned one call appearance. EKTS is only used to manage voice calls. An EKTS primary DN can be an alternate voice/data DN.

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/1/ Material formerly appeared in Part 17, Section 1.

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE (cont'd)**

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**D. Features (cont'd)**

## 2. Features and Capabilities (cont'd)

Call Appearance Call Handling (CACH)

CACH supports multiple directory numbers (DNs), multiple call appearances of each DN, and the sharing of one or more call appearances of one or more DNs with other users or terminals, within the same EKTS group. The quantity of calls which may be associated with a given DN is the number of call appearances assigned to the DN. Up to four call appearances may be assigned as standard provisioning.

Basic EKTS and CACH EKTS terminals may be members of the same EKTS group; however, a DN which is shared across Basic EKTS and CACH EKTS terminals may only be assigned one call appearance. EKTS is only used to manage voice calls. An EKTS primary DN can be an alternate voice/data DN.

Call Hold

Allows the customer to place a call on hold at the central office, making the channel available for another call (either incoming or outgoing). This can be done through software in the customer's equipment or by depressing a properly programmed button on the customer's equipment.

Call Transfer

(See Flexible Calling.)

Called Number Display

Displays the called number on compatible customer premises equipment when an outgoing call is placed.

Caller ID

(See Calling Number Identification.)

Calling Number Identification

Displays the caller's number, if not blocked, on compatible customer premises equipment when an incoming call is received. This feature will forward the calling number from the appropriately equipped originating central office to the customer provided display device.

Clear Channel Capability

Allows all 64 Kbps on each B Channel to be used for customer information, since all signaling and control functions are handled by the D Channel, over the ISDN Direct Line. Calls may be either 56 or 64 Kbps depending on the network capabilities in place between the ISDN Direct Line and the distant end of the call.

Complementary Network Services

(See Other Applicable Charges and Payments.)

- Alternate Answering (Call Forwarding Don't Answer)
- Busy Line Transfer (Call Forwarding Busy Line)

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/1/ Material formerly appeared in Part 17, Section 1.

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE (cont'd)**

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**D. Features (cont'd)**

## 2. Features and Capabilities (cont'd)

Conference Calling - 3 Way

(See Flexible Calling.)

Custom Calling Features

(See Other Applicable Charges and Payments.)

- Call Forwarding Busy Line (See Complementary Network Services.)
- Call Forwarding Don't Answer (See Complementary Network Services.)
- Call Forwarding Variable
- Speed Calling - 8 (Voice capability only)<sup>/1/</sup>
- Speed Calling - 30 (Voice capability only)

Denied Origination

Allows call terminations but prevents the origination of a call.

Denied Termination

Allows call originations but prevents the termination of a call.

Flexible Calling

Flexible Calling is a set of capabilities that allows an ISDN user to establish and control two or more concurrent calls using a single "B" channel.

- Conference allows a user to hold incoming or outgoing calls, initiate another call, then return to the original call, adding on the last party.
- Transfer allows incoming and outgoing calls to be transferred to other lines. The customer initiating the transfer is responsible for any local or toll charges on transferred calls.
- Drop allows the user to drop the last party added to a conference call.

Hunt Group for Shared Data Access

Provides for the automatic search of a group of shared ports to find an available port in response to a connection request. The types of Hunting are limited to Series Completion, Multi-Line and Circular.

Hunting<sup>/2/</sup>

Directs incoming calls to a busy line appearance to a predetermined number to search for a line on which to complete the call. This may be another Circuit Switched Voice Channel or another ISDN station. The types of Hunting are limited to Series Completion, Multi-Line and Circular. This feature may impact the use of Shared Call Appearance and Multiple Call Appearance in certain serving central offices.

/1/ Speed Calling 8 is withdrawn for business customers effective October 31, 2013.

/2/ This feature is not available for Alternate Voice and Data Channel service configurations.

/3/ Material formerly appeared in Part 17, Section 1.

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**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE (cont'd)**

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**D. Features (cont'd)**

## 2. Features and Capabilities (cont'd)

Intercom Calling

Allows a voice user to be able to call another voice user within the Electronic Key Telephone Service (EKTS) intercom group without affecting the busy/idle status of any of the Directory Numbers (DNs) of the calling voice user. Intercom groups can consist of just one other voice user, requiring no intercom address, can consist of two to ten voice users, requiring a one-digit intercom address, or can consist of two to one hundred voice users, requiring a two-digit intercom address. This is a form of abbreviated dialing in that, one voice user can dial another by simply hitting the intercom button and then dialing no digits, one or two digits respectively.

Message Service

(See Message Waiting Indicator.)

Message Waiting Indicator

Provides the ability to indicate to the ISDN station user that they have a voice or electronic message waiting at their Message Storage and Retrieval (MSR) System. The Message Waiting Indicator may be used to present either a visual or audible signal, for the specified ISDN Ordering Code or Customer Premises Equipment (CPE), to the user as determined by the customer's equipment and central office capability.

Multiple Call Appearance

Provides up to four appearances of the station's primary Directory Number or secondary number on the same instrument. These appearances may provide additional access from the public network, and/or may originate unique dial tone for additional outgoing access. (See Additional Multiple Call Appearance for applications that require more than four call appearances on the same device.) This feature may impact the use of Shared Call Appearance in certain serving central offices.

Redirecting Number Delivery

For incoming calls forwarded to an ISDN user, Redirecting Number Delivery delivers to the ISDN user's compatible CPE the Directory Number (if not blocked), associated with the forwarding party and the reason why the call was forwarded.

Secondary Telephone Number

Provides an additional number and one call appearance which is not physically terminated, but exists in the programming of Circuit Switched Voice. The additional Directory Number, while not terminated on a dedicated facility, may be accessed from the network, and may originate unique outgoing dial tone from one instrument that has another directory number as its primary Directory Number.

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/1/ Material formerly appeared in Part 17, Section 1.

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE (cont'd)**

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**D. Features (cont'd)**

2. Features and Capabilities (cont'd)

Shared Call Appearance

Provides the capability for a Directory Number appearance to be shared by two or more ISDN stations. A user may bridge onto an active call on the shared appearance. For call privacy, manual bridge exclusion capabilities are available to prevent other stations from bridging on to selected calls.

Station-Controlled Conference (6 Port)

Provides an additional number and one call appearance which is not physically terminated but exists in the programming of Circuit Switched Voice. The additional Directory Number, while not terminated on a dedicated facility, may be accessed from the network, and may originate unique outgoing dial tone from one instrument that has another Directory Number as its primary Directory Number.

**E. Technical References**

All Customer Premises Equipment used to interface with ISDN Direct Service is required to conform with the Technical Reference Specifications used by the Company.

**Subject**

**Technical Reference**

Ameritech ISDN Interface Specification

AM-TR-NIS-000068

The Technical Reference can be obtained from:

APEX Support Team  
(734) 523-7348

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/1/ Material formerly appeared in Part 17, Section 1.

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE (cont'd)**

**F. Prices**

The prices shown for ISDN Direct are exclusive of local and toll charges and associated customer premises equipment. Charges for other services or features normally applied on a per line basis apply on a per number basis for this service. ISDN Direct Lines are also subject to End User Common Line (EUCL) charges. (See Other Applicable Charges and Payments.) The customer shall be liable for all adjustments to the EUCL charge per ISDN Direct Line, per month, as authorized or mandated by the Federal Communications Commission (or by any regulatory body or commission or court of competent jurisdiction). Charges for the loop, EUCL, usage and optional features are based upon the customer's class of service. Charges for usage and optional features will be applied on a per channel service capability basis. When the customer's premises and the central office providing ISDN Direct are located in different Service Areas, Base Rate charges will apply. (See Other Applicable Charges and Payments.) Customers provided this service arrangement will require three Interexchange Mileage component charges and six Channel Mileage Termination charges for each ISDN Direct Line they purchase. In cases where the customer's premises are in Independent Telephone Company (ITC) serving areas, the Company will assess Base Rate Interexchange Mileage charges only to the point of meet with the ITC or intermediate ITC. Charges for ITC services will be assessed by the ITC.

1. Service Elements

<u>Description /Billing Code/</u>	<u>Nonrecurring Charge</u>	<u>1-Month</u>	<u>Monthly Payment Term Payment Plans<sup>/1/</sup></u>	
			<u>36-Month</u>	<u>60-Month</u>
ISDN CO Termination /P2B/	\$50.00	\$2,564.00 (I)	-	-
ISDN Direct Line /P2L/				
Access Area A	-	1,950.00	-	-
Access Area B	-	1,036.00	-	-
Access Area C	-	402.00	-	-
Circuit Switched Capability, per B Channel /BSB1D/	15.00	289.00 (I)	\$3.75	\$3.50

/1/ Effective August 31, 2011, Term Payment Plans are no longer available for new installations or renewals of ISDN Direct Service. ISDN Direct customers currently on a Term Payment Plan may continue service at their existing TPP rate until the contract term expires. Upon completion of the current contract term, customers may continue receiving the service at the then current month-to-month rates. If the customer does not request discontinuance of the service, the month-to-month rates in effect at such time will automatically apply.

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE (cont'd)**

/2/

**F. Prices (cont'd)**

1. Service Elements (cont'd)

<u>Description /Billing Code/</u>	<u>Nonrecurring Charge</u>	<u>1 Month</u>	<u>Monthly Payment Term Payment Plans<sup>/1/</sup></u>	
			<u>36-Month</u>	<u>60-Month</u>
Additional Call Offering, each /NCO/	\$5.00	\$3.00	-	-
Additional Multiple Call Appearances, each /ACSPB/	5.00	2.00	-	-
Advanced Custom Calling Features - Automatic Callback - Call Screening - Repeat Dialing (See Other Applicable Charges and Payments)				
Complementary Network Services - Alternate Answering - Busy Line Transfer (See Other Applicable Charges and Payments)				
Custom Calling Features - Call Forwarding Variable (See Other Applicable Charges and Payments)				
Intercom Calling /NZV/	5.00	2.50	-	-
Message Waiting Indicator, each /MLN/	5.00	2.00	-	-
Secondary Telephone Numbers, each /DO6/	5.00	2.50	-	-

/1/ Effective August 31, 2011, Term Payment Plans are no longer available for new installations or renewals of ISDN Direct Service. ISDN Direct customers currently on a Term Payment Plan may continue service at their existing TPP rate until the contract term expires. Upon completion of the current contract term, customers may continue receiving the service at the then current month-to-month rates. If the customer does not request discontinuance of the service, the month-to-month rates in effect at such time will automatically apply.

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/2/ Material formerly appeared in Part 17, Section 1.



**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE (cont'd)**

/4/

**F. Prices (cont'd)**

1. Service Elements (cont'd)

<u>Description /Billing Code/</u>	<u>Nonrecurring Charge</u>	<u>1 Month</u>	<u>Monthly Payment Term Payment Plans<sup>/3/</sup></u>	
			<u>36-Month</u>	<u>60-Month</u>
Station Controlled Conference - 6 Port /EQ6/	\$15.00	\$14.00	-	-
Subsequent charges for Circuit Switched rearrangements to add, change or move line appearances or feature appearances, per line, per occasion /REA16/				
Custom Ordering Charge, per ISDN Direct Line /NR91Z/	15.00		-	-
Flat Rate Access <sup>/1/</sup>	75.00			
Access Area A <sup>/2/</sup> /UXG1X/		74.80	-	-
Access Area B <sup>/2/</sup> /UXG1X/		74.80	-	-
Access Area C <sup>/2/</sup> /UXG1X/		74.80	-	-

/1/ Available only with IOCs S1, U, V, EZISDN1 and EZISDN1A

/2/ Access Areas as specified in Part 4, Section 2.

/3/ Effective August 31, 2011, Term Payment Plans are no longer available for new installations or renewals of ISDN Direct Service. ISDN Direct customers currently on a Term Payment Plan may continue service at their existing TPP rate until the contract term expires. Upon completion of the current contract term, customers may continue receiving the service at the then current month-to-month rates. If the customer does not request discontinuance of the service, the month-to-month rates in effect at such time will automatically apply.

/4/ Material formerly appeared in Part 17, Section 1.

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**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE (cont'd)**

/2/

**F. Prices (cont'd)**

## 2. Other Applicable Charges and Payments

Service Ordering and Line Connection charges are also applicable for the establishment of ISDN Direct Service.

References:

<u>Service</u>	<u>Reference</u>
Advanced Custom Calling Features Automatic Callback Call Screening Repeat Dialing	Part 7, Section 2
Base Rate Service	Part 15, Section 3
Complementary Network Services Alternate Answering Busy Line Transfer	Part 7, Section 3
Custom Calling Features Call Forwarding Variable Speed Calling – 8 <sup>/1/</sup> Speed Calling – 30	Part 7, Section 1
End User Common Line (EUCL)	Ameritech Operating Companies Tariff F.C.C. No. 2, Section 4
ITAC Supplemental Charge	Part 8, Section 9
Service ordering and line connection	Part 3, Section 1
Usage Flat <sup>/1/</sup> Message Minutes of Use	Part 4, Section 2

/1/ Speed Calling 8 is withdrawn for Business customers, effective October 31, 2013.

/2/ Material formerly appeared in Part 17, Section 1.

/2/

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE (cont'd)**

/2/

**F. Prices (cont'd)**

## 3. Payment Plans

Month to Month

Integrated Services Digital Network (ISDN) Direct Service is offered on a Month-to-Month basis. Month-to-Month prices will be subject to Company initiated price adjustments.

Term Payment Plans<sup>/1/</sup>

ISDN Direct Service is offered under the Term Payment Plan (TPP) which allows the customer to pay for the service over a customer selected Term Payment Plan. Customers may elect to subscribe to ISDN Direct Service for an extended period under a TPP option which allows the customer to select a 36- or 60-month payment plan. During the length of the selected TPP, monthly prices for service ordered under the plan will automatically change (increase or decrease) as Company initiated price changes become effective. However, under no circumstances will any price change cause the monthly price for the service to exceed the price that was in effect at the beginning of the selected TPP term.

In addition to other regulations of this Guidebook, the following terms and conditions apply to TPPs:

a. Changes

With the written permission of the Company, the obligation to pay the TPP<sup>/1/</sup> charges may be assumed by another customer if the service has not been terminated and if the other customer intends to continue using the service at the present location and actually continues such use. Such assumption of service does not relieve or discharge the original customer from remaining jointly or severally liable with the transferee for any and all obligations existing at the time of the transfer.

b. Renewal Options

If the customer does not request discontinuance of service, service will be continued at the Month-to-Month price then currently in effect for the Month-to-Month Payment Plan.

/1/ Effective August 31, 2011, Term Payment Plans are no longer available for new installations or renewals of ISDN Direct Service. ISDN Direct customers currently on a Term Payment Plan may continue service at their existing TPP rate until the contract term expires. Upon completion of the current contract term, customers may continue receiving the service at the then current month-to-month rates. If the customer does not request discontinuance of the service, the month-to-month rates in effect at such time will automatically apply.

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/2/ Material formerly appeared in Part 17, Section 1.

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE (cont'd)**

/2/

**F. Prices (cont'd)**4. Termination Charges<sup>/1/</sup>

In the event of termination of the service provided under the Term Payment Plan (TPP) during the TPP term, the customer will remain liable for payment of a percentage of the monthly TPP charges for the remainder of the term as indicated below, which shall upon any such termination immediately become due and payable in its entirety. Customers requesting termination of service prior to the expiration date of the TPP term will be liable for a termination charge. The termination charge for all TPP terms will be, in addition to any unpaid Special Construction or Nonrecurring Charges (excluding waived charges), equal to fifty percent (50%) of all recurring charges for the remaining months of the customer's TPP term. All termination charges will be based on the TPP prices in effect at the time of termination. Termination charges are not applicable to changes in the physical location of the customer's ISDN Direct Services as long as the service originates in the same serving central office area.

/1/ Effective August 31, 2011, Term Payment Plans are no longer available for new installations or renewals of ISDN Direct Service. ISDN Direct customers currently on a Term Payment Plan may continue service at their existing TPP rate until the contract term expires. Upon completion of the current contract term, customers may continue receiving the service at the then current month-to-month rates. If the customer does not request discontinuance of the service, the month-to-month rates in effect at such time will automatically apply.

/2/

/2/ Material formerly appeared in Part 17, Section 1.

**ISDN BASIC RATE INTERFACE (BRI) SINGLE B CHANNEL PACKET SERVICE**

/1/

Effective September 1, 2021, ISDN Base Rate Interface (BRI) Single B Channel Packet Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. The Company will continue to provide existing service to existing customers until the expiration of a customer's term agreement. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly Extension rates until the service is discontinued. The Company currently plans to discontinue this service on or after September 1, 2023. The Company will make customer-specific accommodations to the extent required by 220 ILCS 5/13-406.1.

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**A. Description**

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ISDN Basic Rate Interface (BRI) Single B Channel Packet Service provides data communications capability for the transmission of Packet Switched Data signals utilizing Integrated Services Digital Network architecture as recommended by the International Telecommunications Union (ITU) and the American National Standards Institute (ANSI), as defined by Telcordia Technical References, and consistent with the North American ISDN Users Forum (NIUF) Implementation Agreements. Packet switching is designed to provide economical, usage-sensitive data transport for interactive (or bursty) data. ISDN BRI Single B Channel Packet Service only provides high speed Packet Switched Data service that does not connect to the Digital Packet Network (DPN) switch. This service is provided over one 64 Kbps "B" Channel of a single ISDN BRI service Line. No other Packet Network services are provided.

**B. Definitions**ISDN CO Termination

Terminates the ISDN Direct Line in the serving central office.

ISDN Direct Line

The physical connection between and including the customer Network Interface and the ISDN CO Termination.

Kilosegment

One thousand (1,000) segments.

Packet

Continuous sequence of binary digits of information which is switched through the network as an integral unit. Consists of customer data, facilities and addressing/signaling information.

Packet Switched Data - B Channel

Provides the ability to originate and receive X.25 Packet Switched Data calls over a single 64 Kbps B Channel. Provides up to three (3) logical channels and throughput of up to 9.6 Kbps per individual logical channel.

Permanent Virtual Circuit (PVC)

A Virtual Circuit that is established and available on a permanent basis. No call establishment or call termination is associated with a Permanent Virtual Circuit.

Segment

A portion of a packet defined by the Company as a sixteen byte portion.

Single "B" Channel

A 64 Kbps portion of an ISDN BRI Service Line used for transmission of Packet Switched Data.

Virtual Circuit

A communications connection that allows transmission of sequenced data packets through the network. Transmission bandwidth is only allocated when packets are actually being transmitted.

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/1/ Material formerly appeared in Part 17, Section 3.

**ISDN BASIC RATE INTERFACE (BRI) SINGLE B CHANNEL PACKET SERVICE (cont'd)**

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**C. Terms and Conditions**

1. A single device or terminal may be connected directly to an ISDN BRI Single B Channel Packet Service Line. This device will have a unique identifier, known as a Service Profile Identifier (SPID), and a unique primary directory number.
2. An ISDN CO Termination and an ISDN Direct Line are required for each ISDN BRI Single B Channel Packet Service Line.
3. Packet switching usage charges apply. Applicable charges are:
  - Data Transport Minutes of Use, or
  - Kilosegments
4. Customers who transmit an average of 2.0 kilosegments or less of data per logical session per minute can choose between minutes of use (MOU) and kilosegment billing. Customers who transmit greater than an average of 2.0 kilosegments per minute per logical session per minute will be billed for kilosegments transmitted. The average kilosegments per minute will be calculated for the billing period for rating purposes. The measurement of a MOU session begins upon receipt of the call acceptance packet and ends upon receipt of the call clear packet. The minimum initial MOU session is 7 tenths of a minute and additional usage is measured in tenths of minutes. MOU's will be accumulated for the billing period for rating purposes. Kilosegment measurement counts the number of segments transmitted. A kilosegment is 1000 segments. A segment has a billable length of 64 octets of customer information. The minimum initial session is 40 segments and additional usage is measured in segments. Segments are totaled at the end of the billing period and rounded to the next whole kilosegment for rating purposes.
5. An evening, weekend and holiday 50% discount in rates will apply to the ISDN Interface charge. The evening discount will apply for any portion of a call occurring Monday through Friday during the period from 4:00 P.M. to but not including 7:00 A.M. The Weekend and Holiday fifty percent (50%) discount will apply for any portion of a call through the entire day. The Holidays are New Year's Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.
6. ISDN BRI Single B Channel Packet Service is available as a Business service.
7. The service is available from specially equipped digital switching equipment located in the Company's central offices and will be provided where facilities permit and where capacity is available.
8. This service only supports National compliant customer premises equipment.

**D. Features**Flow Control Negotiation

A standard feature that allows negotiation on a per call basis of the packet and window size for each direction of data transfer and the ISDN CO Termination.

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/1/ Material formerly appeared in Part 17, Section 3.

**ISDN BASIC RATE INTERFACE (BRI) SINGLE B CHANNEL PACKET SERVICE (cont'd)**

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**E. Technical References**

All Customer Premises Equipment used to interface with ISDN BRI Single B Channel Packet Service is required to conform with the Technical Reference Specifications used by the Company.

<u>Subject</u>	<u>Technical Reference</u>
Ameritech ISDN Interface Specification	AM-TR-NIS-000068 AM-TR-OAT-000068 AM-TR-NPL-000008

The Technical References can be obtained from:

APEX Support Team  
(734) 523-7348

**F. Prices**

The prices shown for ISDN BRI Single B Channel Packet Service are exclusive of local and toll charges and associated customer premises equipment. ISDN BRI Single B Channel Packet Service lines are also subject to End User Common Line (EUCL) charges. (See Other Applicable Charges and Payments.) The customer shall be liable for all adjustments to the EUCL charge per ISDN BRI Single B Channel Packet Service line, per month, as authorized or mandated by the Federal Communications Commission (or by any regulatory body or commission or court of competent jurisdiction). Charges for the loop, EUCL, and usage are based upon the customer's class of service. When the customer's premises and the central office providing ISDN BRI Single B Channel Packet Service line are located in different Service Areas, Base Rate charges will apply. (See Other Applicable Charges and Payments.) Customers provided this service arrangement will require three Interexchange Mileage component charges and six Channel Mileage Termination charges for each ISDN BRI Single B Channel Packet Service line they purchase. In cases where the customer's premises are in Independent Telephone Company (ITC) serving areas, the Company will assess Base Rate Interexchange Mileage charges only to the point of meet with the ITC or intermediate ITC. Charges for ITC services will be assessed by the ITC.

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/1/ Material formerly appeared in Part 17, Section 3.

**ISDN BASIC RATE INTERFACE (BRI) SINGLE B CHANNEL PACKET SERVICE (cont'd)**

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**F. Prices (cont'd)**

1. Service Elements

<u>Description /Billing Code/</u>	<u>Nonrecurring Charge</u>	<u>Per Month</u>
ISDN CO Termination /P2B/ (See Other Applicable Charges and Payments)		
ISDN Direct Line /P2L/ (See Other Applicable Charges and Payments)		
Packet Switched Data "B" Channel /BSB3X/	\$100.00	\$85.00
Usage		
Data Transport Charge per 1/10 minute or fraction thereof /HRBM1/	-	.0015
Data Transport Charge per Kilosegment /HRBKX/	-	.24

2. Other Applicable Charges and Payments

Service Ordering and Line Connection charges are also applicable for the establishment of ISDN BRI Single B Channel Packet Service.

References:

<u>Service</u>	<u>Reference</u>
Base Rate Service	Part 15, Section 3
End User Common Line (EUCL)	Ameritech Operating Companies Tariff F.C.C. No. 2, Section 4
ISDN CO Termination	Part 17, Section 1
ISDN Direct Line – Exchange access line charge	Part 17, Section 1
ITAC Supplemental Charge	Part 8, Section 9
Service Ordering and Line Connection	Part 3, Section 1

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/1/ Material formerly appeared in Part 17, Section 3.