

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT<sup>/1/</sup>**

**Description**

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 and packet switched 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).

ISDN Direct provides the customer with the ability to combine Circuit Switched Voice, Circuit Switched Data and Packet Switched Data services over a single ISDN Direct line.

The two 64 Kbps "B" channels are used to transmit any combination of Circuit Switched Voice, Circuit Switched Data or high speed Packet Switched Data services.

The "D" channel is used to carry network signaling and user-originated Packet Switched Data at speeds up to 9.6 Kbps.

ISDN Direct service is available as a residence or business service.

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.

**Terms and Conditions**

Where available, a maximum of eight devices may be connected directly to the ISDN Direct line. Only two of these devices are permitted to access the two "B" channels at the same time.

A variety of standard and optional features and capabilities are offered. The availability and functions of the features may vary by serving central office.

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

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**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT<sup>/1/</sup> (cont'd)**

**Terms and Conditions (cont'd)**

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 and in the Guidebook. 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). (T)

The prices shown for ISDN Direct are exclusive of local and toll charges and associated customer premises equipment.

Distance Extension charges, as specified herein, will apply for customers served beyond the normal transmission range specified in the ISDN Interface Specifications.

When a customer specifically requests this service from a different serving central office, OPTINET Base Rate, as found in Part 15, prices 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.

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.

Charges for other services normally applied on a per line basis apply on a per channel basis for this service.

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

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**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT<sup>/1/</sup> (cont'd)**

**Terms and Conditions (cont'd)**

All customer provided equipment used to interface with 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>
ISDN	
Interface Specifications	AM-TR-NIS-000068

The Technical Reference can be obtained from:

APEX Support Team  
(734) 523-7348

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.

**Channel Services**

ISDN Direct lines are provided as either National or Custom lines based on the following:

National ISDN lines offer features and capabilities which are standardized with the different types of central office switches. In addition, standard customer premises equipment is required.

Custom ISDN lines offer features and capabilities which are proprietary to different types of central office switches. The subscriber may utilize proprietary or other compatible customer premises equipment.

**Circuit Switched Voice Service**

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. Toll charges, if applicable, will be applied as specified in Part 9, Section 1 of this Guidebook. Toll charges for business customers may also be found in Part 9, Section 3 of this Guidebook. (T)  
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/1/ Effective August 11, 1997, no new installations and changes to existing Integrated Services Digital Network (ISDN) Direct will be accepted.

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT<sup>/1/</sup> (cont'd)**

**Circuit Switched Voice Service (cont'd)**

The following voice capabilities are standard:

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.

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 equipment.

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.

Called Number Display - The called number is displayed on compatible customer premises equipment when an outgoing call is placed.

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.

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.

Denied Origination - Allows call terminations, but prevents the origination of a call.

Denied Termination - Allows call originations, but prevents the termination of a call.

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

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN)<sup>/1/</sup> DIRECT (cont'd)**

**Circuit Switched Voice Service (cont'd)**

The following voice capabilities are standard: (cont'd)

Hunting - Incoming calls to a busy line appearance are redirected to a predetermined telephone 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.

Multiple Call Appearance - Provides up to four appearances of the station's primary directory number or secondary telephone 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.

Shared Call Appearance - Provides the capability to terminate telephone 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.

The following voice capabilities are optional:

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.

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

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT<sup>/1/</sup> (cont'd)****Circuit Switched Voice Service (cont'd)**

The following voice capabilities are optional: (cont'd)

Additional Multiple Call Appearances - Provides additional call appearances, beyond the initial four appearances, of a station's primary directory number or secondary telephone 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.

Alternate Answering - Provides an automatic transfer of all incoming calls to a fixed telephone number when the called telephone number is not answered by a specified number of rings. Where technically available, and facilities permit, this feature can be provided intraoffice, interoffice, or to a Direct Inward Dialing group. (Refer to Part 7 for applicable charges.)

The customer is responsible for the payment of any applicable station-to-station charges for each call between the customer's telephone and the telephone to which calls are to be transferred. These station-to-station charges apply to billable calls that are answered at the telephone to which the calls are being forwarded, including person-to-person and collect calls, even though they may not be accepted at the answering telephone.<sup>/2/</sup>

(C)

Automatic Callback - Enables a customer to automatically redial the most recent call received by activating the Automatic Callback activation code. This activation causes the network to return the last call the customer received and that call need not have been answered. In this case, the customer who invokes Automatic Callback may be doing so blindly, without knowledge of the original caller's identity or directory number. Therefore, the activation of this feature may result in the return of a long distance call if the last number stored is within the Advance Custom Calling service area, but outside of the customer's Local Calling Area. The Automatic Callback customer is responsible for the applicable Station-to-Station charges for each activation that results in the completion of a chargeable call. (Refer to Part 7 for applicable charges.)

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

/2/ Effective March 19, 2016, Collect, Person-to-Person, Bill to Third Number calls and Busy Line Verification/Interruption services are discontinued.

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**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT<sup>/1/</sup> (cont'd)****Circuit Switched Voice Service (cont'd)**

The following voice capabilities are optional: (cont'd)

Busy Line Transfer - Provides an automatic transfer of all incoming calls to a fixed telephone number when the called telephone number is busy. Where technically available, and facilities permit, this feature can be provided intraoffice, interoffice or to a Direct Inward Dialing group. When this feature is provided on an exchange line with Call Waiting service, Call Waiting service takes precedence unless the Call Waiting cancel feature has been inactivated. (Refer to Part 7 for applicable charges.)

The customer is responsible for the payment of any applicable station-to-station charges for each call between the customer's telephone and the telephone to which calls are to be transferred. These station-to-station charges apply to billable calls that are answered at the telephone to which the calls are being forwarded, including person-to-person and collect calls, even though they may not be accepted at the answering telephone.<sup>/2/</sup>

(C)

Call Forwarding - Permits a customer to automatically forward (transfer) all incoming calls to another telephone number, during the period this service feature is activated. (Refer to the Guidebook for applicable rates.)

The Call Forwarding customer is responsible for the payment of any applicable station-to-station charges for each call between the Call Forwarding equipped telephone and the telephone to which the call is being forwarded. The charge applies to billable calls that are answered at the telephone to which the calls are being forwarded, person-to-person, and collect calls even though they may not be accepted at the answering telephone.<sup>/2/</sup>

(C)

The quality of transmission of forwarded calls may vary depending on the distance and the routing necessary for the completion of a call. Therefore, the normal grade end-to-end transmission is not guaranteed on any forwarded calls.

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

/2/ Effective March 19, 2016, Collect, Person-to-Person, Bill to Third Number calls and Busy Line Verification/Interruption services are discontinued.

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**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT<sup>/1/</sup> (cont'd)****Circuit Switched Voice Service (cont'd)**

The following voice capabilities are optional: (cont'd)

Call Screening - Gives the customer the ability to prevent repeated calls from a caller whose number may or may not be known. Immediately after having received a nuisance call, the called customer may hang up and dial a service access code which causes the network to deny the nuisance caller the ability to ring the customer's telephone. Further calls to the customer are screened by originating number, and rejected calls terminate in an appropriate announcement. In addition, the customer may optionally input a list of numbers from which he does not wish to receive any calls. (Refer to Part 7 for applicable charges.) (C)

All customer-provided equipment used to interface with CNAM is required to conform with the Technical Reference Specifications as used by the Company and found in Technical References TR-NWT-000033, TR-TSY-000031 and TR-NWT-001188.

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.

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.

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



**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT<sup>/1/</sup> (cont'd)****Circuit Switched Voice Service (cont'd)**

The following voice capabilities are optional: (cont'd)

Repeat Dialing - Enables the customer to automatically redial a call to the last number dialed by activating the Repeat Dialing activation code which requests the network to periodically retry the call. Intended primarily to help a customer reach someone whose line is busy, the service is activated independent of the disposition of the prior call. The network periodically tests the status of the called line. When it is found idle and the calling line is also idle, the calling line rings in a distinctive pattern indicating a callback. If the calling customer answers, the network attempts to set up the call. If the calling party fails to answer, distinctive ringing is terminated by the time out, and the retry interval is increased. Repeat Dialing remains in effect for at most 30 minutes. A customer may have several calls being Repeat Dialed to different parties at the same time. (Refer to Part 7 for applicable charges.)

Secondary Telephone Number - Provides an additional telephone 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.

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.

Speed Calling-8<sup>/2/, /3/</sup> - Permits a subscriber to place local and long distance calls to a pre-selected group of eight (8) telephone numbers by dialing abbreviated codes. The code capacity is reduced from eight to six codes when used with Call Transfer. (Refer to the Guidebook for applicable rates.) (C)

Speed Calling-30 - Permits a subscriber to place local and long distance calls to a pre-selected group of thirty (30) telephone numbers by dialing abbreviated codes. (Refer to the Guidebook for applicable rates.)

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

/2/ Speed Calling 30 is withdrawn for residence customers effective June 1, 2013.

/3/ Speed Calling 8 is withdrawn for business customers effective October 31, 2013.

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**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT<sup>/1/</sup> (cont'd)**

**Circuit Switched Data Service**

The following data capabilities are standard: (cont'd)

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. ISDN Data usage applies at charges shown elsewhere in this Section.

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.

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 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.

Denied Origination - Allows call terminations, but prevents the origination of a call.

Denied Termination - Allows call originations, but prevents the termination of a 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.

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

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT<sup>/1/</sup> (cont'd)**

**Circuit Switched Data Service (cont'd)**

The following data capabilities are optional: (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.

Alternate Answering - Provides an automatic transfer of all incoming calls to a fixed telephone number when the called telephone number is not answered by a specified number of rings. Where technically available, and facilities permit, this feature can be provided intraoffice, interoffice, or to a Direct Inward Dialing group. (Refer to Part 7 for applicable charges.)

The customer is responsible for the payment of any applicable station-to-station charges for each call between the customer's telephone and the telephone to which calls are to be transferred.

Busy Line Transfer - Provides an automatic transfer of all incoming calls to a fixed telephone number when the called telephone number is busy. Where technically available, and facilities permit, this feature can be provided intraoffice, interoffice or to a Direct Inward Dialing group. When this feature is provided on an exchange line with Call Waiting service, Call Waiting service takes precedence unless the Call Waiting cancel feature has been inactivated. (Refer to Part 7 for applicable charges.)

The customer is responsible for the payment of any applicable station-to-station charges for each call between the customer's telephone and the telephone to which calls are to be transferred.

Call Forwarding - Permits a customer to automatically forward (transfer) all incoming calls to another telephone number, during the period this service feature is activated. (Refer to the Guidebook for applicable rates.) (T)

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

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT<sup>/1/</sup> (cont'd)**

**Circuit Switched Data Service (cont'd)**

The following data capabilities are optional: (cont'd)

The Call Forwarding customer is responsible for the payment of any applicable station-to-station charges for each call between his Call Forwarding equipped telephone and the telephone to which the call is being forwarded.

The quality of transmission of forwarded calls may vary depending on the distance and the routing necessary for the completion of a call. Therefore, the normal grade end-to-end transmission is not guaranteed on any forwarded calls.

**Alternate Circuit Switched Voice/Circuit Switched Data Service**

Provides the ability to originate and receive either Circuit Switched Voice or Circuit Switched Data Calls over a single "B" channel, but not simultaneously. Data calls are subject to ISDN Data Usage.

See Circuit Switched Voice and Circuit Switched Data services for standard and optional features.

**Packet Switched Data-B Channel**

Provides the exclusive ability to originate and receive X.25 packet switched data calls over the 64 Kbps "B" channel.

Standard capabilities and features for Packet Switched Network lines using X.25 are included.

Provides up to 128 logical channels and throughput of up to 19.2 Kbps per individual logical channel.

Calls, optional capabilities and features for Packet Switched Network lines using X.25 are available at the charges shown in Section 6 - Packet Switched Network (PSN) Services.

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

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT<sup>/1/</sup> (cont'd)**

**Packet Switched Data-B Channel (cont'd)**

The following data capabilities are optional: (cont'd)

On-Demand Packet Switched Data-B Channel

This capability allows a user to request that a connection be established to provide the ability to originate and receive X.25 packet switched data calls over the 64 Kbps "B" channel.

Standard capabilities and features for Packet Switched Network lines using X.25 access are included.

Provides up to 128 logical channels and throughput of up to 19.2 Kbps per individual logical channel.

Calls, optional capabilities and features for Packet Switched Network lines using X.25 are available at the charges shown in Section 6 - Packet Switched Network (PSN) Services.

Packet Switched Data-D Channel

Provides the ability to originate and receive X.25 packet switched data calls over the 16 Kbps "D" channel.

Standard capabilities and features for Packet Switched Network lines using X.25 access are included.

Provides up to 32 logical channels and throughput of up to 9.6 Kbps per individual logical channel.

Calls, optional capabilities and features for Packet Switched Network lines using X.25 are available at the charges shown in Section 6 - Packet Switched Network (PSN) Service.

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

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT<sup>/3/</sup> (cont'd)**

ISDN Direct is available as a residence or business exchange service. Charges for EUCL and optional features such as Custom Calling services are based upon the customer's class of service.

Service ordering and line connection charges as specified in Part 3 are also applicable for the establishment of ISDN Direct.

**Service Elements and Optional Features:**

Description /Billing Code/	Nonrecurring Charge	Per Month
ISDN Direct Line provisioned with one service:		
Circuit Switched Voice Service Element "B" Channel		
residence /LTQ5X/	\$ 65.00	\$ 26.50
business /LTQ5X/	65.00	47.00
Circuit Switched Data Service Element /LTQ6X/ <sup>/1/</sup>	65.00	23.50
Alternate Circuit Switched Voice/Data Service Element /LTQ1X/ <sup>/1/</sup>	65.00	53.00
Packet Switched Data "B" Channel /LTQ3X/ <sup>/2/</sup>	150.00	100.50
On-Demand Packet Switched Data "B" Channel /LTH7X/ <sup>/2/</sup>	100.00	41.50

/1/ ISDN Data Usage applies. See Part 20, Section 4.

/2/ Packet Switched Network Usage applies.

/3/ Effective August 11, 1997, no new installations and changes to existing Integrated Services Digital Network (ISDN) Direct will be accepted.

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SECTION 17 - ISDN Services

1st Revised Sheet 15

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT<sup>/2/</sup> (cont'd)****Service Elements and Optional Features: (cont'd)**

Description /Billing Code/	Nonrecurring Charge	Per Month
Packet Switched Data "D" Channel per device /LTQ4X/ <sup>/1/</sup>	\$65.00	\$22.00
Distance Extension beyond normal transmission range /XTN/	-	22.50
Per Location		
per initial ISDN Direct Line	45.00	
per subsequent ISDN Direct Line	20.00	
Additional Call Offering /NCO/	5.00	2.50
Additional Multiple Call Appearances, each /ACSPB/	1.50	3.00
Intercom Calling /NZV/	5.00	2.50
Secondary Telephone Numbers, each /DO6/	2.00	3.00
Station Controlled Conference-6 Port /EQ6/	15.00	14.00
Message Waiting Indicator, each /MLN/	5.00	2.50
Service on 2 <sup>nd</sup> "B" Channel		
Circuit Switched Voice Service Element "B" Channel /AAQ5X/	15.00	31.50

/1/ Packet Switched Network Usage applies.

/2/ Effective August 11, 1997, no new installations and changes to existing Integrated Services Digital Network (ISDN) Direct will be accepted.

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT<sup>/4/</sup> (cont'd)**

**Service Elements and Optional Features: (cont'd)**

Description /Billing Code/	Nonrecurring Charge	Per Month
Service on 2 <sup>nd</sup> "B" Channel (cont'd)		
Circuit Switched Data Service Element "B" Channel /AAQ6X//1/	\$ 15.00	\$ 8.00
Alternate Circuit Switched Voice/Data Service Element /AAQ1X/ <sup>/1/</sup>	15.00	37.50
Packet Switched Data "B" Channel /AAQ3X/ <sup>/2/</sup>	100.00	85.00
On-Demand Packet Switched Data "D" Channel /AAQ7X/ <sup>/2/ /3/</sup>	50.00	20.00
Packet Switched Data "D" Channel per device /AAQ4X/ <sup>/2/</sup>	15.00	6.50
Subsequent Changes Charges		
Circuit Switched Data or Packet Switched Data Service		
Activate or change a standard feature per "D" channel, per occasion /REA1S/	15.00	-
per "D" channel service, per occasion /REA1T/	15.00	-

/1/ ISDN Data Usage applies. See Part 20, Section 4.

/2/ Packet Switched Network Usage applies.

/3/ Also applies when an On-Demand Packet is provided in association with another "B" Channel service.

/4/ Effective August 11, 1997, no new installations and changes to existing Integrated Services Digital Network (ISDN) Direct will be accepted.



**INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT<sup>/1/</sup> (cont'd)**

**Service Elements and Optional Features: (cont'd)**

Description /Billing Code/	Nonrecurring Charge	Per Month
Subsequent Changes Charges (cont'd)		
Circuit Switched Voice		
Activate or change a standard or move a line or feature appearance per channel /REA1H/	\$ 7.50	-
Change from a Custom ISDN line to be a National ISDN line or vice versa /REA1U/	15.00	-
Current charges apply for a telephone number change		

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

**ISDN RESIDENTIAL SERVICE**

/1/(C)

*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 and regulations that follow.*

**A. Description**

/1/

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.

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.)

/1/

/1/ Material formerly appeared in Part 17, Section 1, Sheet 43.

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

/1/ (C)

**A. Description (cont'd)**

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.)

/1/

**B. Definitions**

/2/

"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 Line

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

/2/

/1/ Material formerly appeared in Part 17, Section 1, Sheet 44.

/2/ Material formerly appeared in Part 17, Section 1, Sheet 45.

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

/1/(C)

**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. 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.

/1/

/1/ Material formerly appeared in Part 17, Section 1, Sheet 46.

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

/1/(C)

**D. Features**

1. ISDN Ordering Codes (IOCs)

The following tables describe 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

/1/

/1/ Material formerly appeared in Part 17, Section 1, Sheet 47.

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

/2/(C)

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

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

<u>Code</u>	<u>Description</u>	<u>Features</u>
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

/2/

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

/2/

/2/ Material formerly appeared in Part 17, Section 1, Sheet 48.

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

/1/(C)

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

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

<u>Code</u>	<u>Description</u>	<u>Features</u>
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

/1/

/1/ Material formerly appeared in Part 17, Section 1, Sheet 49.

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

/1/(C)

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

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

<u>Code</u>	<u>Description</u>	<u>Features</u>
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

/1/

/2/

/2/

/1/ Material formerly appeared in Part 17, Section 1, Sheet 50.

/2/ Material formerly appeared in Part 17, Section 1, Sheet 51.



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

/2/(C)

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

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

<u>Code</u>	<u>Description</u>	<u>Features</u>
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
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

/2/

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

/2/

/2/ Material formerly appeared in Part 17, Section 1, Sheet 52.

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

/2/(C)

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

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

<u>Code</u>	<u>Description</u>	<u>Features</u>
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

/2/

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

/2/

/2/ Material formerly appeared in Part 17, Section 1, Sheet 53.

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

/2/(C)

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

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

<u>Code</u>	<u>Description</u>	<u>Features</u>
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
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

/2/

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

/2/

/2/ Material formerly appeared in Part 17, Section 1, Sheet 54.

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

/2/(C)

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

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

<u>Code</u>	<u>Description</u>	<u>Features</u>
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
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

/2/

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

/2/

/2/ Material formerly appeared in Part 17, Section 1, Sheet 55.

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

/2/

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

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

<u>Code</u>	<u>Description</u>	<u>Features</u>
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

/2/

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

/2/

/2/ Material formerly appeared in Part 17, Section 1, Sheet 56.

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

/2/(C)

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

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

<u>Code</u>	<u>Description</u>	<u>Features</u>
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
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

/2/

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

/2/

/2/ Material formerly appeared in Part 17, Section 1, Sheet 57.

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

/2/(C)

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

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

<u>Code</u>	<u>Description</u>	<u>Features</u>
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

/2/

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

/2/

/2/ Material formerly appeared in Part 17, Section 1, Sheet 58.

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

/2/(C)

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

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

<u>Code</u>	<u>Description</u>	<u>Features</u>
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

/2/

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

/2/

/2/ Material formerly appeared in Part 17, Section 1, Sheet 59.



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

/2/(C)

**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 DN's 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.

/2/

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

/2/

/2/ Material formerly appeared in Part 17, Section 1, Sheet 60.

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

/2/(C)

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

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

Call Appearance Call Handling<sup>/1/</sup>

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's 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, often, by depressing a properly programmed button on the customer's telephone 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.)

/2/

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

/2/

/2/ Material formerly appeared in Part 17, Section 1, Sheet 61.

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

/1/(C)

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

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

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/

/1/ Material formerly appeared in Part 17, Section 1, Sheet 62.

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

/2/(C)

**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.

Intercom Calling<sup>/1/</sup>

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 IOC or CPE, to the user as determined by the customer's equipment and central office capability.

/2/

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

/2/

/2/ Material formerly appeared in Part 17, Section 1, Sheet 63.

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

/2/(C)

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

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

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 telephone 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.

/2/

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

/2/

/2/ Material formerly appeared in Part 17, Section 1, Sheet 64.

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

/1/(C)

**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>
Ameritech ISDN Interface Specification	AM-TR-NIS-000068

The Technical Reference can be obtained from:

APEX Support Team  
(734) 523-7348

/1/

/1/ Material formerly appeared in Part 17, Section 1, Sheet 65.

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

/1/(C)

**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 telephone 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.

/1/

/1/ Material formerly appeared in Part 17, Section 1, Sheet 66.

**ISDN RESIDENTIAL SERVICE (cont'd)****F. Prices (cont'd)**

## 1. Service Elements

Description /Billing Code/	Nonrecurring Charge	Monthly Price	
ISDN CO Termination /P2B/	\$50.00	\$20.00	
ISDN Line /P2L/			
Rate Class 1	/1/	23.00	(1)
Rate Class 2	/1/	23.00	
Rate Class L	/1/	23.00	
Rate Class 3	/1/	23.00	(1)
Circuit Switched Capability, Initial "B" Channel /BSB1D/	15.00	4.00	
Circuit Switched Capability, Subsequent "B" Channel /BSB8A/	15.00	8.00	
Additional Call Offering, each /NCO/	5.00	3.00	
Advanced Custom Calling Features <sup>/2/</sup>			
Automatic Callback	/1/	/1/	
Repeat Dialing	/1/	/1/	
Complementary Network Services			
Alternate Answering	/1/	/1/	
Busy Line Transfer	/1/	/1/	
Custom Calling Features			
Call Forwarding Variable	/1/	/1/	
Intercom Calling /NZV <sup>/2/</sup>	5.00	2.50	
Message Waiting Indicator, each /MLN/	5.00	2.50	
Secondary Telephone Number, each /DO6 <sup>/2/</sup>	5.00	2.50	

/1/ See other applicable charges and payments.

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



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

/2/(C)

**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 <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) Interstate	Ameritech Operating Companies Tariff F.C.C. No. 2, Section 4
Intrastate	Part 21, Section 2
Service ordering and line connection	Part 3, Section 1

/2/

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

/2/

/2/ Material formerly appeared in Part 17, Section 1, Sheet 68.

**1. INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE<sup>/1/</sup>**

/2/

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.

(N)

(N)

**A. Description**

/2/

Integrated Services Digital Network (ISDN) Direct Service is a telecommunications service that provides an integrated voice/data communications capability for the transmission of circuit switched voice and data and packet switched 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, Circuit Switched Data and Packet 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, Circuit Switched Data or high speed Packet Switched Data Services. The "D" channel is used to carry signaling and user-originated Packet Switched Data at speeds up to 9.6 Kbps.

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.)

/1/ Effective July 16, 2005, material relating to ISDN Direct B- and D-channel packet switched data is grandfathered and no longer available to new customers. Existing customers may retain the service on an uninterrupted basis at their current location.

/2/

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

**1. INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE<sup>/1/</sup> (cont'd)**

/2/

**A. Description (cont'd)**On-Demand Packed Switched Data - "B" Channel

This capability allows a user to request that a connection be established to provide the ability to originate and receive X.25 packet switched data calls over the 64 Kbps "B" channel.

Standard capabilities and features for Packet Switched Service lines using X.25 access are included.

Provides up to 127 logical channels and throughput of up to 19.2 Kbps per individual logical channel.

Calls, optional capabilities and features for Packet Switched Service lines using X.25 are available at applicable charges. (See Other Applicable Charges and Payments.)

Packet Switched Data - "B" Channel

Provides the ability to originate and receive X.25 packet switched data calls over the 64 Kbps "B" channel.

Standard capabilities and features for Packet Switched Service lines using X.25 are included.

Provides up to 127 logical channels and throughput of up to 19.2 Kbps per individual logical channel.

Calls, optional capabilities and features for Packet Switched Service lines using X.25 are available at applicable charges. (See Other Applicable Charges and Payments.)

/1/ Effective July 16, 2005, material relating to ISDN Direct B- and D-channel packet switched data is grandfathered and no longer available to new customers. Existing customers may retain the service on an uninterrupted basis at their current location.

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

/2/

**1. INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE<sup>/1/</sup> (cont'd)**

/2/

**A. Description (cont'd)**Packet Switched Data - "D" Channel

Provides the ability to originate and receive X.25 packet switched data calls over the 16 Kbps "D" channel.

Standard capabilities and features for Packet Switched Service lines using X.25 access are included.

A single "D" channel packet device is allowed up to 15 logical channels and provides a throughput of up to 9.6 Kbps per individual logical channel.

Calls, optional capabilities and features for Packet Switched Service lines using X.25 are available at applicable charges. (See Other Applicable Charges and Payments.)

/1/ Effective July 16, 2005, B- and D-channel packet switched data as part of this service offering is grandfathered and no longer available to new customers. Existing customers may retain the service on an uninterrupted basis at their current location.

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

/2/

**1. INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE<sup>/1/</sup> (cont'd)**

/2/

**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 packet switched data, out of band signaling and control of the "B" channels.

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).

/1/ Effective July 16, 2005, B- and D-channel packet switched data as part of this service offering is grandfathered and no longer available to new customers. Existing customers may retain the service on an uninterrupted basis at their current location.

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

/2/

**1. INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE<sup>/1/</sup> (cont'd)**

/2/

**C. Terms and Conditions (cont'd)**

1. Where available, a maximum of eight devices or terminals may be connected directly to an 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.

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.

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 and/or packet switched data services 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.

/1/ Effective July 16, 2005, material relating to ISDN Direct B- and D-channel packet switched data is grandfathered and no longer available to new customers. Existing customers may retain the service on an uninterrupted basis at their current location.

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

/2/

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

/1/

**C. Terms and Conditions (cont'd)**

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 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.

/1/

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

**1. INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE<sup>/1/</sup> (cont'd)**

/2/

**D. Features**

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

1. ISDN Ordering Codes (IOCs)

<u>Code</u>	<u>Description</u>	<u>Features</u>
A	Basic D-Channel Packet with up to 15 two-way logical channels (user specified)	Voice and Circuit Data Features None Packet Data Features Fast Select Fast Select Acceptance Reverse Charge 2-Way Logical Channel
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
D	Voice on one B channel and basic D channel packet	Voice and Circuit Data Features None Packet Data Features Fast Select Fast Select Acceptance Reverse Charge 2-Way Logical Channel

/1/ Effective July 16, 2005, B- and D-channel packet switched data as part of this service offering is grandfathered and no longer available to new customers. Existing customers may retain the service on an uninterrupted basis at their current location.

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

/2/



**1. INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE<sup>E/2/</sup> (cont'd)**

/3/

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

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

<u>Code</u>	<u>Description</u>	<u>Features</u>
E <sup>/1/</sup>	Voice on one B channel and basic D channel packet	Voice Features Additional Call Offering Call Hold Calling Number Identification Flexible Calling Redirecting Number Delivery Packet Data Features Fast Select Fast Select Acceptance Reverse Charge 2-Way Logical Channel
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

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

/2/ Effective July 16, 2005, B- and D-channel packet switched data as part of this service offering is grandfathered and no longer available to new customers. Existing customers may retain the service on an uninterrupted basis at their current location.

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

/3/

**1. INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE<sup>/2/</sup> (cont'd)**

/3/

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

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

<u>Code</u>	<u>Description</u>	<u>Features</u>
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
N <sup>/1/</sup>	Alternate voice/circuit switched data on one B channel and circuit switched data on the other B channel, and basic D channel packet	Voice Features Additional Call Offering Call Hold Calling Number Identification Flexible Calling Redirecting Number Delivery Circuit Data Features Calling Number Identification Redirecting Number Delivery Packet Data Features Fast Select Fast Select Acceptance Reverse Charge 2-Way Logical Channel

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

/2/ Effective July 16, 2005, B- and D-channel packet switched data as part of this service offering is grandfathered and no longer available to new customers. Existing customers may retain the service on an uninterrupted basis at their current location.

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

/3/

**1. INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE<sup>/2/</sup> (cont'd)**

/3/

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

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

<u>Code</u>	<u>Description</u>	<u>Features</u>
P	Alternate voice/circuit switched data on two B channels and basic D channel packet	Voice Features Additional Call Offering Call Hold Calling Number Identification Flexible Calling Redirecting Number Delivery Circuit Data Features Calling Number Identification Redirecting Number Delivery Packet Data Features Fast Select Fast Select Acceptance Reverse Charge 2-Way Logical Channel
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
T <sup>/1/</sup>	Voice capabilities on two B channels and basic D channel packet	Voice and Circuit Data Features None Packet Data Features Fast Select Fast Select Acceptance Reverse Charge 2-Way Logical Channel

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

/2/ Effective July 16, 2005, B- and D-channel packet switched data as part of this service offering is grandfathered and no longer available to new customers. Existing customers may retain the service on an uninterrupted basis at their current location.

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

/3/

**1. INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE<sup>/2/</sup> (cont'd)**

/3/

**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
A1 <sup>/1/</sup>	Basic D channel packet	Voice and Circuit Data Features None Packet Data Features Fast Select Fast Select Acceptance Reverse Charge 2-Way Logical Channel

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

/2/ Effective July 16, 2005, B- and D-channel packet switched data as part of this service offering is grandfathered and no longer available to new customers. Existing customers may retain the service on an uninterrupted basis at their current location.

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

/3/

**1. INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE<sup>/2/</sup> (cont'd)**

/3/

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

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

<u>Code</u>	<u>Description</u>	<u>Features</u>
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
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
D1 <sup>/1/</sup> D2 <sup>/1/</sup>	Voice capabilities on one B channel and basic D channel packet	Voice Features Call Forwarding Variable Call Forwarding Busy Line Call Forwarding Don't Answer Packet Data Features Fast Select Fast Select Acceptance Reverse Charge 2-Way Logical Channel
D3 <sup>/1/</sup>	Voice on one B channel and basic D channel packet. A maximum of 4 logical two-way channels can be selected by user	Voice and Circuit Data Features None Packet Data Features Fast Select Fast Select Acceptance Reverse Charge 2-Way Logical Channel
D4 <sup>/1/</sup>	Voice on one B channel and basic D channel packet.	Voice and Circuit Data Features None Packet Data Features Fast Select Fast Select Acceptance Reverse Charge 2-Way Logical Channel

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

/2/ Effective July 16, 2005, B- and D-channel packet switched data as part of this service offering is grandfathered and no longer available to new customers. Existing customers may retain the service on an uninterrupted basis at their current location.

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

/3/

**1. INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE<sup>/2/</sup> (cont'd)**

/3/

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

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

<u>Code</u>	<u>Description</u>	<u>Features</u>
E1 <sup>/1/</sup> E2 <sup>/1/</sup>	Voice capabilities on one B channel and basic D channel packet	Voice Features Additional Call Offering Automatic Callback Automatic Recall Call Forwarding Busy Line Call Forwarding Don't Answer Call Forwarding Variable Call Hold Calling Number Identification Flexible Calling Message Service Redirecting Number Delivery Packet Data Features Fast Select Fast Select Acceptance Reverse Charge 2-Way Logical Channel
E3 <sup>/1/</sup>	Voice on one B channel and basic D channel packet	Voice Features Additional Call Offering Call Hold Calling Number Identification Flexible Calling Redirecting Number Delivery Packet Data Features Fast Select Fast Select Acceptance Reverse Charge 2-Way Logical Channel

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

/2/ Effective July 16, 2005, B- and D-channel packet switched data as part of this service offering is grandfathered and no longer available to new customers. Existing customers may retain the service on an uninterrupted basis at their current location.

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

/3/

**1. INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE<sup>/2/</sup> (cont'd)**

/3/

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

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

<u>Code</u>	<u>Description</u>	<u>Features</u>
F1 <sup>/1/</sup> F2 <sup>/1/</sup>	Voice capabilities on one B channel and basic D channel packet	Voice Features Automatic Callback Automatic Recall 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 Packet Data Features Fast Select Fast Select Acceptance Reverse Charge 2-Way Logical Channel
F3 <sup>/1/</sup>	Voice on one B channel and basic D channel packet	Voice Features Call Appearance Call Handling Call Hold Calling Number Identification Flexible Calling Intercom Calling Redirecting Number Delivery Secondary Telephone Number Packet Data Features Fast Select Fast Select Acceptance Reverse Charge 2-Way Logical Channel

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

/2/ Effective July 16, 2005, B- and D-channel packet switched data as part of this service offering is grandfathered and no longer available to new customers. Existing customers may retain the service on an uninterrupted basis at their current location.

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

/3/

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

/2/

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

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

Code	Description	Features
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

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

/2/ Material formerly appeared in Part 20, Section 17.

/2/



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

/2/

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

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

<u>Code</u>	<u>Description</u>	<u>Features</u>
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
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

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

/2/

/2/ Material formerly appeared in Part 20, Section 17.

**1. INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE<sup>/2/</sup> (cont'd)**

/3/

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

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

<u>Code</u>	<u>Description</u>	<u>Features</u>
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
I4 <sup>/1/</sup>	Circuit switched data on two B channels and D channel packet capabilities	Circuit Data Features Calling Number Identification Redirecting Number Delivery Packet Data Features Fast Select Fast Select Acceptance Reverse Charge 2-Way Logical Channel
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

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

/2/ Effective July 16, 2005, B- and D-channel packet switched data as part of this service offering is grandfathered and no longer available to new customers. Existing customers may retain the service on an uninterrupted basis at their current location.

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

/3/

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

/2/

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

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

<u>Code</u>	<u>Description</u>	<u>Features</u>
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

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

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

/2/

**1. INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE<sup>/2/</sup> (cont'd)**

/3/

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

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

<u>Code</u>	<u>Description</u>	<u>Features</u>
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
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
N1 <sup>/1/</sup>	Alternate voice/ circuit switched data on one B channel and circuit switched data on the other B channel, and basic D channel packet	Voice Features Additional Call Offering Call Hold Calling Number Identification Flexible Calling Redirecting Number Delivery Circuit Data Features Calling Number Identification Redirecting Number Delivery Packet Data Features Fast Select Fast Select Acceptance Reverse Charge 2-Way Logical Channel

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

/2/ Effective July 16, 2005, B- and D-channel packet switched data as part of this service offering is grandfathered and no longer available to new customers. Existing customers may retain the service on an uninterrupted basis at their current location.

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

/3/

**1. INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE<sup>/2/</sup> (cont'd)**

/3/

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

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

<u>Code</u>	<u>Description</u>	<u>Features</u>
O1 <sup>/1/</sup>	Alternate voice/circuit switched data on one B channel and circuit switched data on the other B channel, and basic D channel packet	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 Packet Data Features Fast Select Fast Select Acceptance Reverse Charge 2-Way Logical Channel
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

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

/2/ Effective July 16, 2005, B- and D-channel packet switched data as part of this service offering is grandfathered and no longer available to new customers. Existing customers may retain the service on an uninterrupted basis at their current location.

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

/3/

**1. INTEGRATED SERVICES DIGITAL NETWORK (ISDN) DIRECT SERVICE<sup>/2/</sup> (cont'd)**

/3/

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

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

<u>Code</u>	<u>Description</u>	<u>Features</u>
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
T1 <sup>/1/</sup>	Voice capabilities on two B channels, plus basic D channel packet	Voice Features Additional Call Offering Call Hold Calling Number Identification Flexible Calling Redirecting Number Delivery Packet Data Features Fast Select Fast Select Acceptance Reverse Charge 2-Way Logical Channel

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

/2/ Effective July 16, 2005, B- and D-channel packet switched data as part of this service offering is grandfathered and no longer available to new customers. Existing customers may retain the service on an uninterrupted basis at their current location.

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

/3/

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

/1/

**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 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

/1/

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

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

/1/

**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 telephone 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.)

/1/

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



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

/1/

**D. Features (cont'd)****2. Features and Capabilities (cont'd)**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.

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 DN's 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.

/1/

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

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

/1/

**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 by depressing a properly programmed button on the customer's telephone 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.

/1/

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

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

/1/

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

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

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)

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)
- 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.

/1/

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

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

/2/

**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 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>/1/</sup>

Directs incoming calls to a busy line appearance to a predetermined telephone 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/ This feature is not available for Alternate Voice and Data Channel service configurations.

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

/2/

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

/1/

**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 IOC or 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 telephone 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.

/1/

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

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

/1/

**D. Features (cont'd)****2. Features and Capabilities (cont'd)**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

Provides an additional telephone 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

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 telephone 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.

/1/

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

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

/1/

**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.

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

The Technical Reference can be obtained from:

APEX Support Team  
(734) 523-7348

/1/

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

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

/1/

**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 telephone 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/

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



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

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

1. Service Elements

<u>Description /Billing Code/</u>	<u>Nonrecurring Charge</u>	<u>Monthly</u>	<u>Monthly Payment</u> <u>Term Payment Plans<sup>3/</sup></u>		
			<u>36 Months</u>	<u>60 Months</u>	<u>84 Months</u>
ISDN CO Termination /P2B/	\$50.00	\$2,885.00 (1)	/1/	/1/	/1/
ISDN Direct Line /P2L/					
Rate Class 1	/2/	767.00 (1)	/1/	/1/	/1/
Rate Class 2	/2/	767.00	/1/	/1/	/1/
Rate Class L	/2/	767.00	/1/	/1/	/1/
Rate Class 3	/2/	767.00 (1)	/1/	/1/	/1/
Circuit Switched Capability – - Initial “B” Channel /BSB1D/	15.00	325.00 (1)	\$3.75	\$3.50	\$3.25

/1/ Not available.

/2/ See Other Applicable Charges and Payments.

/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 tariff rates in effect at such time will automatically apply.

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

/4/

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

1. Service Elements (cont'd)

Description /Billing Code/	Non-recurring Charge	Monthly	Monthly Payment Term Payment Plans <sup>/3/</sup>		
			36 Months	60 Months	84 Months <sup>/1/</sup>
Circuit Switched Capability, Subsequent "B" Channel /BSB8A/	\$ 15.00	\$96.00	\$11.75	\$11.50	\$11.25
Packet Switched Data "B" Channel, per "B" channel /BSB3X/ <sup>/2/</sup>	100.00	85.00	80.00	75.00	70.00
Packet Switched Data "D" Channel, per device /LTQ4X/ <sup>/2/</sup>	15.00	6.50	6.30	6.10	5.90

/1/ Effective June 21, 2002, 84-Month Term Payment Plans will no longer be available for ISDN Direct Service. Current ISDN Direct 84-month customers may continue to retain their existing service as is at their current address until the 84-month contract term expires. Any customer requested changes to the existing Service will require the customer to select a new contract term payment plan or the month-to-month option at the then current rates. The Company will not impose termination liability to those customers required to make a contract term change. Upon completion of the 84-month TPP term, customers may continue receiving the Service at the then-current rates under any available payment plan. If the customer does not select a new payment plan and does not request discontinuance of the Service, the month-to-month Guidebook rates in effect at such time will automatically apply.

/2/ Effective July 16, 2005, material relating to ISDN Direct B- and D-channel packet switched data is grandfathered and no longer available to new customers. Existing customers may retain the service on an uninterrupted basis at their current location.

/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 tariff rates in effect at such time will automatically apply.

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

/4/

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

/5/

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

1. Service Elements (cont'd)

Description <u>/Billing Code/</u>	Non-recurring <u>Charge</u>	<u>Monthly</u>	Monthly Payment <u>Term Payment Plans</u> <sup>/4/</sup>		
			<u>36</u> <u>Months</u>	<u>60</u> <u>Months</u>	<u>84</u> <u>Months</u>
On-Demand Packet Switched Data "B" Channel, per "B" channel /BSB7X/ <sup>/3/</sup>	\$50.00	\$20.00	/2/	/2/	/2/
Additional Call Offering, each /NCO/	5.00	3.00	/2/	/2/	/2/
Additional Multiple Call Appearances, each /ACSPB/	5.00	2.00	/2/	/2/	/2/
Advanced Custom Calling Features <sup>/1/</sup>					
- Automatic Callback	-	-	/2/	/2/	/2/
- Call Screening	-	-	/2/	/2/	/2/
- Repeat Dialing	-	-	/2/	/2/	/2/
Complementary Network Services <sup>/1/</sup>					
- Alternate Answering	-	-	/2/	/2/	/2/
- Busy Line Transfer	-	-	/2/	/2/	/2/

/1/ See other applicable charges and payments.

/2/ Not available.

/3/ Effective July 16, 2005, B- and D-channel packet switched data as part of this service offering is grandfathered and no longer available to new customers. Existing customers may retain the service on an uninterrupted basis at their current location.

/4/ 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 tariff rates in effect at such time will automatically apply.

/5/ Material formerly appeared in Part 17, Section 1.

/5/

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

/4/

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

1. Service Elements (cont'd)

Description /Billing Code/	Non-recurring Charge	Monthly	Monthly Payment <i>Term Payment Plans</i> <sup>/3/</sup>		
			36 Months	60 Months	84 Months
Custom Calling Features <sup>/1/</sup> Call Forwarding Variable	-	-	/2/	/2/	/2/
Intercom Calling /NZV/	\$5.00	\$2.50	/2/	/2/	/2/
Message Waiting Indicator, each /MLN/	5.00	2.50	/2/	/2/	/2/
Secondary Telephone Numbers, each /DO6/	5.00	2.50	/2/	/2/	/2/

/1/ See other applicable charges and payments.

/2/ Not available.

/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 tariff rates in effect at such time will automatically apply.

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

/4/

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

/4/

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

1. Service Elements (cont'd)

Description /Billing Code/	Non- recurring Charge	Monthly	Monthly Payment Term Payment Plans <sup>/3/</sup>		
			36 Months	60 Months	84 Months
Station Controlled Conference - 6 Port /EQ6/	\$15.00	\$14.00	/1/	/1/	/1/
Subsequent charges for Circuit Switched & Packet Switched <sup>/2/</sup> rearrangements to add, change or move line appearances or feature appearances, per line, per occasion /REA16/	15.00	-	/1/	/1/	/1/
Custom Ordering Charge, per ISDN Line /NR91Z/	75.00	-	/1/	/1/	/1/

/1/ Not available.

/2/ Effective July 16, 2005, B- and D-channel packet switched data as part of this service offering is grandfathered and no longer available to new customers. Existing customers may retain the service on an uninterrupted basis at their current location.

/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 tariff rates in effect at such time will automatically apply.

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

/4/

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

/1/

**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	Part 7, Section 2
Automatic Callback	
Call Screening	
Repeat Dialing	
Base Rate Service	Part 15, Section 3
Complementary Network Services	Part 7, Section 3
Alternate Answering	
Busy Line Transfer	
Custom Calling Features	Part 7, Section 1
Call Forwarding Variable	
Speed Calling - 8	
Speed Calling - 30	
End User Common Line (EUCL)	Ameritech Operating Companies
Interstate	Tariff F.C.C. No. 2, Section 4
Intrastate	Part 21, Section 2

/1/

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

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

/1/

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

2. Other Applicable Charges and Payments (cont'd)

References:

Service

Reference

Packet Switched Service (Grandfathered)

Part 20, Section 6

Service ordering and line connection

Part 3, Section 1

/1/

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

**1. 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 Term Payment Plan (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 Term Payment Plans (TPP):

/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 tariff rates in effect at such time will automatically apply.

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

/2/



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

/2/

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

3. Payment Plans (cont'd)

- 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.

During a customer's TPP term, conversion may be made to a new TPP term of the same or different length, if the expiration date for the TPP is beyond the end of the original TPP. The new TPP becomes effective upon execution. Customers may also change from a Month-to-Month Payment Plan to a TPP. No credit for months under the previous TPP or under the Month-to-Month Plan may be transferred to the new TPP. The customer incurs no liability for the remaining months on the original TPP since the change is not considered a termination of service. The prices applicable for the new term are those currently in effect for new customers.

/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 tariff rates in effect at such time will automatically apply.

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

/2/

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

/2/

**F. Prices (cont'd)****3. Payment Plans (cont'd)**

- Renewal Options

If the customer does not elect a new TPP and 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. At a later date, the customer may elect any TPP option currently in effect for new customers.

The monthly TPP prices applicable for the new term are those currently in effect for new customers.

There are no nonrecurring charges associated with renewing a TPP.

**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.

/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 tariff rates in effect at such time will automatically apply.

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

/2/

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

/1/

**F. Prices (cont'd)****4. Termination Charges (cont'd)**

The termination charge for all TPP terms will be calculated as follows:

For service term agreements which become effective on or after May 3, 2004:

- in addition to any unpaid Special Construction or Nonrecurring Charges (excluding waived charges), customer termination liability for cancellation of ISDN Direct Service shall be equal to fifty percent (50%) of all recurring charges for the remaining months of the customer's TPP term.

For service term agreements in effect prior to May 3, 2004:

- The dollar difference between the current monthly TPP price for the TPP term that could have been completed during the time the service was actually in service and the customer's current TPP price for each month the service was provided.

Example: A customer subscribed to a 60-month TPP term and disconnected service during the 37th month. This customer's termination charge would be

$$(36\text{-month TPP price} - 60\text{-month TPP price}) \times 37 = \text{Termination Charge}$$

The 36-month TPP term could have been completed during the months the service was actually in service.

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/

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

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

/1/

Effective September 1, 2021, ISDN Basic Rate Interface 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.

(N)

(N)

**A. Description**

/1/

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.

/1/

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

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

/1/

**B. Definitions (cont'd)**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 (16) 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.

**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 BRI Line is required for each ISDN BRI Single B Channel Packet Service Line.

/1/

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

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

/1/

**C. Terms and Conditions (cont'd)**

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.

/1/

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

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

/1/

**C. Terms and Conditions (cont'd)**

- 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.

**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.

Subject	Technical References
Ameritech ISDN Interface Specification	AM-TR-NIS-000068 AM-TR-OAT-000068 AM-TR-NPL-000016

The Technical References can be obtained from:

APEX Support Team  
(734) 523-7348

/1/

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

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

/1/

**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.

/1/

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



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

/2/

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

1. Service Elements

Description /Billing Code/	Recurring Charge	Per Month
ISDN CO Termination /P2B/	/1/	/1/
ISDN Direct Line /P2L/		
Rate Class 1	/1/	/1/
Rate Class 2	/1/	/1/
Rate Class L	/1/	/1/
Rate Class 3	/1/	/1/
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

/1/ See Other Applicable Charges and Payments.

/2/

/2/ Material formerly appeared in Part 17, Section 3.

**1. ISDN BASIC RATE INTERFACE (BRI) SINGLE B CHANNEL PACKET 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 BRI Single B Channel Packet Service.

References:

Service	Reference
Base Rate Service <sup>/1/</sup>	Part 15, Section 3
End User Common Line (EUCL)	
Interstate	Tariff F.C.C. No. 2, Section 4
Intrastate	Part 21, Section 2
ISDN CO Termination	Part 17, Section 1
ISDN Direct Line	Part 17, Section 1
Service ordering and line connection	Part 3, Section 1

/2/

/1/ Effective June 30, 2021, Base Rate Service is grandfathered. See Part 20, Section 15 for service availability.

/2/ Material formerly appeared in Part 17, Section 3.

(N)