Section 9 – ISDN Basic Rate Interface Service

A. TERMS AND CONDITIONS

1. General

ISDN Basic Rate Interface (BRI) Service is a digital local exchange service that provides a Customer with the ability to transmit circuit switched voice, circuit switched data, and packet switched data simultaneously over a single access line. ISDN BRI Service is available only from suitably equipped digital central offices and where suitable loop facilities exist. Service from some central offices may not provide all of the features and functionality described in this section.

ISDN BRI Service consists of a Basic Rate Access Line and ISDN Bearer Services. The Basic Rate Access Line and the ISDN Bearer Services are not offered separately. Up to three Bearer Services may be provisioned on each access line. In addition, optional features may be purchased as specified in this section.

All circuit switched calls are carried on the public switched telephone network. Local circuit switched calling can be purchased as flat rate or measured rate service. All packet switched calls are carried by X.25 Packet.

The Customer must provide customer premises equipment that meets the technical requirements of the serving central office.

The Customer is responsible for providing power to all customer premises equipment (CPE) attached to the ISDN Basic Rate Access Line.

The Customer must notify the Company when terminals are added or removed from a Basic Rate Access Line. This is in order to maintain the proper provision of directory numbers and call control on the line.

Customers must choose from a standard set of terminal button configurations when adding a terminal to a line. The charge for changing an existing terminal button configuration is shown in the Price List of this Agreement. This charge is waived if the change is made as the result of adding a feature or service.

When a Customer transfers a call, the Customer is responsible for any toll charges associated with the customer originated leg(s) of the call.

An End User Common Line (EUCL) charge is applied to each Basic Rate Access Line.

One 911 charge is applied to each Circuit Switched B-Channel.

ISDN is offered only as nonresidential service. Residential customers may purchase ISDN BRI under the nonresidence rates, terms, and conditions.

Temporary suspension of service is not available with ISDN BRI Service.

The minimum service period for ISDN BRI Service is one month.

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1. General (Continued)

When placing an order for service(s) a Customer may request a service date that is sooner than the standard interval service date. If the Company agrees to and meets the requested expedite date, an expedite charge will apply and will be in addition to installation charges and all other nonrecurring charges.

2. Basic Rate Access Line

A Basic Rate Access Line is a digital line from the Customer's location to the Company central office which transports one or more ISDN Bearer Services. A Basic Rate Access Line can carry up to two B-Channel Bearer Services and one D-Channel Bearer Service. All selected Bearer Services can operate on the Access Line simultaneously.

Each terminal (voice or data set) that the Customer places on a Basic Rate Access Line will be assigned a directory number. The Customer must notify the Company of the number of terminals that will be used on each Basic Rate Access Line. A maximum of eight (8) terminals may be connected to a Basic Rate Access Line.

3. ISDN Bearer Services

ISDN Bearer Services define the types of traffic that the Basic Rate Access Line will carry. A Basic Rate Access Line can carry up to two B-Channel Bearer Services and one D-Channel Bearer Service simultaneously.

a. Circuit Switched B-Channel (Voice or Data)

A Circuit Switched B-Channel provides a 56 kbps or 64 kbps circuit switched service which can be used for either voice or data traffic. The call type (voice or data) can be changed on a call by call basis.

When multiple circuit switched terminals are connected to a Basic Rate Access Line with two Circuit Switched B-Channels, the user can specify how the terminals contend for use of the two B-Channels. Each B-Channel can be directly assigned for use by one terminal, or it can be available for use by multiple terminals.

Circuit Switched B-Channels may be purchased with either flat rate or measured rate service. Flat rate local calling is included in the flat rate B-Channel service option. Measured rate B-Channels will be billed for local usage. Mixing flat rate and measured rate service between B-Channels on a single Basic Rate Access Line is prohibited. Mixing flat rate and measured rate service between Basic Rate Access Lines is prohibited when furnished on the same continuous property, except where the services are used for separate purposes, not used to supplement each other, and used for distinctly different applications.

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a. Circuit Switched B-Channel (Voice or Data) (Continued)

Circuit Switched B-Channels are provided with the following standard features:

1. Call Drop

This feature allows the user to disconnect the last party added to a conference call.

2. Call Hold

This feature allows the user to place a call on hold and retrieve it at a later time.

3. Call Transfer

This feature allows the user to transfer a call to another directory number. This feature is for use with voice calls only.

4. Calling Number Delivery

Displays the telephone number of the caller after the first ring.

5. Conference:

This feature allows the user to add a third party to an existing conversation. This feature is for use with voice calls only.

6. Display Service

This feature provides terminals which are equipped with a display screen with the time and date, and the ability to inspect the status of calls in progress.

7. Three Call References

Each circuit switched terminal will be offered the capacity to manage (hold, originate, terminate, or receive alerting) up to three calls at once. By placing an existing call on hold, the user can originate (or terminate) a second or third call.

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b. Packet Switched B-Channel

B-Channel Packet Service provides a 64 kbps connection to X.25 Packet.

Each B-Channel Packet terminal will be provided up to 24 logical channels. Each logical channel can carry an independent call with throughput of up to 19.2 kbps. If more than 24 logical channels are required, additional logical channels can be provided as found in A.4.b.2 of this section. Each logical channel may be established as one of the following types:

Two-way Switched Virtual Circuit (default) One-way Incoming Switched Virtual Circuit One-way Outgoing Switched Virtual Circuit Permanent Virtual Circuit (additional charge)

The following features are provided to B-Channel Packet Customers.

Fast Select Initiation Flow Control Parameter Negotiation Recognized Private Operating Agency (RPOA) Selection Reverse Charging Initiation Throughput Class Negotiation

The following configuration choices are available to B-Channel Packet Customers. Default values are used if the Customer has no preference except where noted.

Acknowledgement Timer Fast Select Acceptance Frame Window Size Idle Timer Maximum Packet Size Packet Window Size Recognized Private Operating Agency (RPOA) Preselection Reverse Charging Acceptance Throughput Class Selection

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c. Packet Switched D-Channel

This service provides a connection to X.25 Packet over the 16 kbps D-Channel.

Each D-Channel Packet terminal will be provided with up to 8 logical channels. Each logical channel can carry a packet call with throughput of up to 9.6 kbps. Additional logical channels can be provided as found in part A.4.b.2 of this section. Each logical channel may be established as one of the following types:

Two-way Switched Virtual Circuit (default) One-way Incoming Switched Virtual Circuit One-way Outgoing Switched Virtual Circuit Permanent Virtual Circuit (additional charge)

The following features are provided to D-Channel Packet subscribers.

Fast Select Initiation Flow Control Parameter Negotiation Recognized Private Operating Agency (RPOA) Selection Reverse Charging Initiation Throughput Class Negotiation

The following configuration choices are available to D-Channel Packet subscribers.

Acknowledgement Timer Fast Select Acceptance Frame Window Size Idle Timer Maximum Packet Size Packet Window Size Recognized Private Operating Agency (RPOA) Preselection Reverse Charging Acceptance Throughput Class Selection

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4. Optional Features

The features in this section are available to ISDN BRI customers at additional cost. For Basic Rate Access Lines with multiple terminals and/or multiple directory numbers, the features must be purchased separately for each directory number on which the feature is desired. Features only function on call references assigned to the directory number subscribing to the feature.

a. Circuit Switched B-Channel Options

The following optional features are available for use on Circuit Switched B-Channels:

1. Additional Call References

This feature provides the Customer with the ability to manage extra calls on an existing directory number. The Customer may specify the number of call references desired for the directory number.

2. Additional Directory Number

This feature provides the Customer with an extra call reference with a unique directory number. This feature is only available to EKTS subscribers.

3. Call Pickup

This feature allows a user to answer any call within a Customer defined call pickup group. This feature is for use with voice calls only.

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- a. Circuit Switched B-Channel Options (Continued)
 - 4. Electronic Key Telephone Service (EKTS)

This feature provides a group of features that increases the user's voice terminal flexibility and offers the functionality of a key system to groups of users subscribing to EKTS.

a. Abbreviated Ringing and Delayed Ringing

When multiple terminals share a directory number, the Customer can specify one or more of the terminals to receive Abbreviated Ringing and one or more of the terminals to receive Delayed Ringing. When a call attempts to terminate to the shared DN, the Abbreviated Ringing terminals will ring immediately. If the call remains unanswered after a pre-specified time, the Abbreviated Ringing terminals will stop ringing and the Delayed Ringing terminals will begin ringing. The Delayed Ringing terminals will continue to ring until the call is answered or abandoned.

b. Automatic Bridged Call Exclusion

This is a privacy feature that allows a Customer to specify, on an EKTS group basis, that no other user can bridge on to calls. On a call by call basis, this feature can be disabled to allow bridging to occur.

c. Bridging

When one EKTS user originates or receives a call on a shared directory number, bridging allows other terminals sharing that DN to bridge on to that active call.

d. Intercom Calling

This feature allows an EKTS user to call other terminals in the EKTS group with one or two digit dialing.

e. Manual Bridged Call Exclusion

This is the opposite of Automatic Bridged Call Exclusion. On a call by call basis the user can restrict bridging.

f. Shared Directory Numbers

This feature allows EKTS terminals to share one or more directory numbers (DNs). Originating and terminating calls on one terminal affect all terminals sharing that DN. The shared DNs can have multiple call appearances, multiple calls can exist on one DN, and more than one terminal sharing the DN can have a call active on that shared DN.

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- a. Circuit Switched B-Channel Options (Continued)
 - 5. Hunting

This feature provides for a predefined search for an idle terminal to which a call can be completed. Terminals subscribing to hunting may not have multiple call references. Customers desiring Uniform Call Distribution (UCD) must first purchase hunting, and then purchase UCD.

6. Six Party Conference Calling

This feature provides the ability to create a conference call with up to six parties. This feature is for use with voice calls only.

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b. Packet Switched Optional Features

The following features are available for use with Packet Switched B-Channel and D-Channel Bearer Services:

1. Additional Directory Number

This feature provides an additional telephone number for a Customer's packet switched bearer service.

2. Additional Logical Channels

If logical channels are required, they may be purchased in blocks of seven. The maximum number of logical channels allowed on a Packet Switched B-Channel is 127. The maximum number of logical channels allowed on a D-Channel is 15.

3. Closed User Group (CUG)

This feature allows packet subscribers to form sub-networks within which members can communicate. The CUG is billed on a per member basis. Users can be members of more than one CUG. The CUG can be designed with the following configuration options:

Incoming calls barred within the CUG Outgoing calls barred within the CUG CUG with incoming access CUG with outgoing access

4. Permanent Virtual Circuit

This feature allows a call to be established over a dedicated logical channel to a prescribed address with no need for call setup or clearing.

5. X.25 Hunting

This feature provides hunting between multiple directory numbers assigned to X.25 terminals.

B. RATES AND CHARGES

The rates and charges for ISDN BRI are shown in the Price List Section of this Agreement.