

## ACCESS SERVICE

### 9. Directory Assistance Service

The Telephone Company will provide Directory Assistance (DA) Service to a customer from Directory Assistance Service locations (DA locations). DA locations are either primary or subtending. Primary DA locations are those to which terminating DA calls for the NPA first complete. Primary DA locations either process the telephone number request or, if necessary, forward the call to a subtending DA location for processing. DA service rates are assessed by the primary DA location only. Subtending DA locations are compensated by contractual arrangements between Telephone Companies.

#### 9.1 General Description

Telephone Company provided DA Service is available to customers for their use in furnishing DA services to end users. It provides for the use of Directory Access Service between the premises of the ordering customer and the DA location(s), use of DA access equipment, and use of DA operators to provide telephone numbers.

Directory Access Service will be provided between the customer designated premises and the DA location by the Telephone Company. Rates and charges for Directory Assistance Service are set forth in Section 17 following.

#### 9.1.1 Description and Provision of Directory Assistance Service

A Telephone Company DA operator, when furnished a name and locality, will provide or attempt to provide the telephone number listed in the Telephone Company DA records associated with the name given, at the rates and charges as set forth in Section 17 following. The Telephone Company's contact with the customer's end user shall be limited to that effort necessary to process a customer's end user's request for a telephone number; and the Telephone Company will not transfer, forward or redial a customer's end user call to any other location for any purpose other than the provision of DA Service. Each Directory Access Service will consist of the following:

- An Interface Group equipped with an available Premises Interface as set forth in Section 15.3.1 following at the customer's designated premises.
- Directory Transport between the premises of the ordering customer and the DA location.

When required by the Telephone Company, a separate Directory Access Service trunk group will be provided for DA Service for each NPA. Separate trunk groups will be required when the Telephone Company notifies the customer that the mechanized search of its data base and its mechanized operator practices require a ~~mechanized identification of the NPA code for which the customer's end user desires~~ DA information.

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**ACCESS SERVICE**9. Directory Assistance Service (Cont'd)9.1 General Description (Cont'd)9.1.1 Description and Provision of Directory Assistance Service (Cont'd)

Further, when an access tandem is available and is requested, the Directory Access Service will be provided, at customer choice:

- as a separate Directory Access Service trunk group, or
- in combination with Feature Group B, C or D Switched Access Service.

9.1.2 Ordering Options and Conditions(A) Ordering

Except as set forth following, Directory Assistance Service provided under a Special Order is subject to the ordering conditions as set forth in Section 5 preceding. The customer shall determine and order the busy hour minutes of capacity and interface type of Directory Access Services it needs for DA Service.

When DA Service is initially ordered, the customer shall order the service for at least six months. Thereafter, additional service may be ordered for a minimum of six months. Not later than three months prior to the end of the six-month period, the customer shall notify the Telephone Company if the service is to be discontinued at the end of the six-month period. If no notice is received from the customer, the Telephone Company will automatically extend the service for another six months and all appropriate charges as set forth in Section 17 following will apply for another six months.

(B) Cancellation of a Special Order

A customer may cancel a Special Order for DA Service on any date prior to the service date. The cancellation date is the date the Telephone Company receives written or verbal notice from the customer that the Special Order is to be canceled. The verbal notice must be followed by written confirmation within 10 days.

When a customer cancels a Special Order for DA Service after the order date but prior to the start of service, the appropriate application of charges as set forth in Section 5 preceding apply for the Directory Access Service cancelled. In addition, a charge equal to any unrecoverable capital costs incurred by the Telephone Company will apply to the customer.

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**ACCESS SERVICE**9. Directory Assistance Service (Cont'd)9.1 General Description (Cont'd)9.1.2 Ordering Options and Conditions(C) Changes to Special Orders

When a customer requests changes to a pending order for DA Service, such changes will be undertaken if they can be accommodated by the Telephone Company. The appropriate application of charges as set forth in Section 5 preceding apply for the Directory Access Service changed. In addition, a charge equal to any other costs incurred by the Telephone Company because of the change will apply.

9.1.3 Rate Categories

There are two rate categories, which apply to Directory Assistance Service:

- Directory Assistance Service Call
- Directory Transport Service

(A) Directory Assistance Service Call

The Directory Assistance Service Call rate category provides for the use of general DA Services such as operators and DA access equipment necessary to provide DA Service to a customer.

(B) Directory Transport Service

Directory Transport Service provides the transmission facilities and transport termination between the premises of the ordering customer and the DA location. For purposes of determining Directory Transport Mileage, distance will be measured from the wire center that normally serves the customer premises to the DA location(s).

Directory Transport is a two-way voice frequency transmission path composed of Switched Access Local Transport facilities as set forth in Section 6.1.3 preceding. The two-way voice frequency path transports calls in the terminating direction (from the premises of the ordering customer to the DA location). The following rate elements, which are more fully described in Section 6.1.3(A) preceding, are applicable.

**ACCESS SERVICE**

9. Directory Assistance Service (Cont'd)

9.1 General Description (Cont'd)

9.1.3 Rate Categories (Cont'd)

(B) Directory Transport Service (Cont'd)

- Entrance Facility for the transport of the DA call from the customer's premises to the serving wire center of that premises.
- Direct Trunked Transport (i.e., Direct Trunked Facility and Direct Trunked Termination) for the transport of the DA call from the customer's serving wire center to the DA location without switching at a tandem or from the serving wire center to the tandem.
- Tandem Switched Transport (i.e., Tandem Switched Facility, Tandem Switched Termination, and Tandem Switching) for the transport of the DA call from the tandem to the DA location.

**ACCESS SERVICE**9. Directory Assistance Service (Cont'd)9.1 General Description (Cont'd)9.1.3 Rate Categories (Cont'd)(B) Directory Transport Service (Cont'd)

DS1 to Voice Grade Multiplexing charges apply when a High Capacity DS1 Entrance Facility or Direct Trunked Facility is connected with Voice Grade Direct Trunked Transport. A DS1 to Voice Grade Multiplexing charge does not apply when a High Capacity DS1 Direct Trunked Facility is terminated at an electronic end office and only Switched Access Service is provided over the DS1 facility (i.e., Voice Grade Special Access channels are not derived). The DS1 to voice multiplexer will convert a 1.544 Mbps channel to 24 Voice Grade channels.

The customer will specify whether the Directory Access Service is to be routed directly to a DA location or through an access tandem switch appropriately equipped for DA measurement and served by DA trunks to the DA location when such an access tandem switch is available. The combination of Feature Group B, C or D Switched Access Service with DA Service will only be provided at such available and appropriately equipped access tandem switches.

When Directory Transport is provided using a Direct Trunked Transport to the DA location, no address signaling is provided. When Directory Transport is provided with the use of an access tandem switch, wink start-start pulsing signaling is provided at the access tandem switch. When access tandem routing is provided, the customer shall address each call to the DA location using NPA + 555 + 1212 or when required by the Telephone Company, 555-1212. Only NPA codes handled by the DA location served by the access tandem switch will be processed.

Directory Transport is provided with one of the Local Transport Interface Groups as set forth in Section 15.1.1 following.

**ACCESS SERVICE**9. Directory Assistance Service (Cont'd)9.1 General Description (Cont'd)9.1.4 Special Facilities Routing

A customer may request that Directory Access Service be provided via Special Facilities Routing. The regulations, rates and charges for Special Facility Routing (Avoidance, Diversity and Cable Only) are as set forth in Section 11 following.

9.1.5 Design Layout Report

The Telephone Company will provide to the customer the makeup of the facilities and services provided under this section as Directory Access Service. This information will be provided in the form of a Design Layout Report similar to that set forth in Section 6.1.5 preceding. Design Layout Reports for Directory Access Service will be provided only when specifically requested by the customer. The Design Layout Report will be provided to the customer at no charge, and will be reissued or updated whenever the facilities provided for the customer's use are materially changed.

9.2 Undertaking of the Telephone Company9.2.1 Number of Telephone Number Requests

A maximum of two (2) requests for telephone numbers will be accepted per call to Directory Assistance and DA operators will not transfer, forward or redial the call to another location for any purpose other than the provision of DA Service.

9.2.2 Telephone Number Availability

A telephone number which is not listed in DA records will not be available to the customer's end user.

**ACCESS SERVICE**9. Directory Assistance Service (Cont'd)9.2 Undertaking of the Telephone Company (Cont'd)9.2.3 Selection of DA Locations

The Telephone Company will specify the DA location, which provides the DA Service for each numbering plan area code (NPA).

When it becomes necessary to change a DA location, as determined by the Telephone Company, the Telephone Company will notify the involved customers six months prior to the change. For such changes, the regulations as set forth in Section 2.1.7 preceding apply.

9.2.4 Transmission Specifications

Each Directory Assistance Service transmission path is provided with standard transmission specifications, either Type A or B, as set forth, respectively, in Sections 15.1.2(E) and 15.1.2(F) following. The specifications associated with the parameters are guaranteed to the DA location. The standard for a particular transmission path is dependent upon the following:

- Whether Directory Access Service is provided in combination with Feature Group B, C or D Switched Access Service, or
- When not provided in combination with Switched Access Service, whether routed direct or via an access tandem switch.

The available transmission specifications are set forth in Section 15.3.2 following.

**ACCESS SERVICE**9. Directory Assistance Service (Cont'd)9.2 Undertaking of the Telephone Company (Cont'd)9.2.5 Testing(A) Acceptance Testing

The acceptance testing capabilities for Directory Access Service traffic routed through an access tandem are the same as those for the associated Feature Group C or D end office switching. The acceptance testing for Directory Access Service traffic routed directly, or routed in separate trunk groups through an access tandem, to the DA location, will be the same as that for Switched Access Service as set forth in Section 6.2.4 preceding.

(B) Routine Testing

Routine testing capabilities for Directory Access Service traffic routed through an access tandem are the same as those for the associated Feature Group C or D end office switching. Routine testing capabilities for Directory Access Service traffic routed directly, or routed in a separate trunk group through an access tandem, to the DA location, will be as set forth in Section 13.3.1(A)(3) following (Additional Manual Testing).

9.2.6 Determination of Number of Transmission Paths

The number of Directory Transport transmission paths provided is based on the customer's order and is determined by the Telephone Company in a manner similar to Switched Access Service transmission paths as set forth in Section 6.2.5 preceding.

9.2.7 Supervisory Signaling

Trunk side switching is provided at the DA Service access location. The DA Service access location will provide trunk answer and disconnect supervisory signaling.

**ACCESS SERVICE**9. Directory Assistance Service (Cont'd)9.3 Obligations of the Customer

In addition to the obligations of the customer as set forth in Section 2 preceding, the customer has certain specific obligations concerning the use of Directory Assistance Service. These obligations are as follows:

9.3.1 Jurisdictional Reports

Directory Transport may, at the option of the customer, be provided for both interstate and intrastate communications. When the customer requests such mixed access, the interstate Directory Transport charges will be determined by the Telephone Company using the data furnished by the customer as set forth in Section 2.3.11 preceding.

9.3.2 Supervisory Signaling

The customer facilities at the premises of the ordering customer shall provide the necessary on-hook and off-hook supervision.

9.3.3 Ordering of Separate Trunk Groups

When requested by the Telephone Company, the customer shall order a separate trunk group for DA Service for each NPA. The conditions when the customer will be requested to order separate trunk groups for each NPA are set forth in Section 9.1.1 preceding.

9.3.4 Notice of Discontinuance of Service

DA Service is ordered and renewed for a minimum period of six months at a time, as set forth in Section 9.1.2(A) preceding. Not later than three months prior to the end of any six-month period, the customer shall notify the Telephone Company if the service is to be discontinued at the end of that period.

**ACCESS SERVICE**9. Directory Assistance Service (Cont'd)9.4 Rate Regulations

This section contains the specific regulations governing rates and charges that apply for Directory Assistance Service.

9.4.1 Nonrecurring Charges

Nonrecurring charges for DA Service are one-time charges that apply for a specific work activity (i.e., installation, change to an existing service and DA Service rearrangements).

(A) Installation of Service

Nonrecurring Local Transport Installation and Direct Trunked Transport Activation charges as set forth in Sections 17 following are applied as set forth in Section 6.4.1(B)(1) preceding to each Directory Access Service installed.

(B) DA Service Rearrangements

All changes to existing services other than changes involving administrative activities will be treated as a discontinuance of the existing service and an installation of a new service.

9.4.2 Directory Assistance Service Call Charge

The Directory Assistance service call charge, as set forth in Section 17 following, applies for each call to DA Service. A call is a call, which has been answered by a DA operator. The charge applies whether or not the DA operator provides the requested telephone number. The number of calls answered by DA operators will be accumulated by Telephone Company's measuring equipment. A credit for the provision of an incorrect telephone number will be applied as set forth in Section 9.4.8 following.

**ACCESS SERVICE**9. Directory Assistance Service (Cont'd)9.4 Rate Regulations (Cont'd)9.4.3 Directory Transport Service

The premium Local Transport charges set forth in Section 17 following are also applicable to Directory Transport Service and will be assessed on the same basis as the Switched Access Local Transport rate elements set forth in Section 6.1.3(A) preceding:

- Entrance Facility
- Direct Trunked Transport
- Tandem Switched Transport
- Multiplexing

9.4.4 Minimum Periods

The minimum period for which DA Service and the Directory Access Service is provided and for which charges apply is six months. A minimum period of six months applies for each additional period of service ordered or extended. If DA Service is discontinued prior to the end of each six-month period, the charges that apply for the remaining months are the non-recoverable costs. Such costs include the non-recoverable cost of equipment and material ordered, provided or used, plus the non-recoverable cost of installation and removal including the costs of engineering, labor supervision, transportation, rights-of-way and other associated costs less estimated net salvage.

The minimum period for which High Capacity DS3 Entrance Facilities or High Capacity DS3 Direct Trunked Transport is provided is twelve months.

9.4.5 Minimum Monthly Charge

DA service is subject to a minimum monthly charge. The minimum monthly charge is calculated as follows:

The minimum monthly charge for Directory Assistance Service calls is the charge as set forth in Section 17 following for the actual usage for the month.

For Directory Transport rate element, the minimum monthly charge the customer will be assessed will be the usage charges based on actual usage. For flat rated Directory Transport rate elements, the minimum monthly charge is the sum of the recurring charges prorated to the number of days or major fraction of days based on a 30-day month. ~~Rates for Directory Transport are set forth in Section 17 following.~~

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**ACCESS SERVICE**9. Directory Assistance Service (Cont'd)9.4 Rate Regulations (Cont'd)9.4.6 DA Service Rearrangements

Nonrecurring charges apply for service rearrangements. Service rearrangements and the regulations concerning the application of associated nonrecurring charges are as set forth in Section 6.4.1(B)(3) preceding.

9.4.7 Moves

A move involves a change in the physical location of the point of termination at the customer designated premises or of the customer designated premises. Moves will be treated as set forth in Section 6.4.4 preceding and all associated nonrecurring charges will apply. Minimum period requirements will be established at the new location as set forth in Section 6.4.4 preceding. The customer will also remain responsible for satisfying all outstanding minimum period charges for the discontinued service.

9.4.8 Credit Allowance for Service Outages and Incorrect Numbers

- (A) When the DA location or DA operator equipment or terminals are out of service due to a Telephone Company equipment failure a credit allowance is provided. When an incorrect number is provided and a customer's DA call has been answered by a DA operator, a credit allowance is provided. The credit allowance provided is equal to the rate for a Directory Assistance Service Call as set forth in Section 17 following. The credit will be applied to the customer's charges.
- (B) In addition to the credit as set forth in Section 9.4.8(A) preceding, when a DA operator or DA equipment provides an incorrect number for a call and the customer reports such occurrences to the Telephone Company, a credit allowance for the Switched Access portion of the call in the originating LATA of such DA call will apply. The credit will be as set forth in Section 9.4.8(C) following. When the customer reports such a call and the number requested, the number provided and the reason the number provided is incorrect, the number of calls for which a credit will apply will be developed by the Telephone Company in cooperation with the customer.

**ACCESS SERVICE**9. Directory Assistance Service (Cont'd)9.4 Rate Regulations (Cont'd)9.4.8 Credit Allowance for Service Outages and Incorrect Numbers (Cont'd)

- (C) When a DA call is not completed due to the failure of Directory Access Service to DA locations, DA access equipment or DA operator activities, a credit allowance for the Switched Access Service portion in the originating LATA of such DA call will apply. When the customer reports such a call and DA number dialed, time of the call and the date of the call, the number of calls for which a credit will apply will be developed by the Telephone Company in cooperation with the customer. The credit will be as set forth in Section 17 following. Credit allowances for other service interruptions will be provided as set forth in Section 2.4.4 preceding.

**ACCESS SERVICE**10. Special Federal Government Access Services10.1 General

This section covers Special Access Services that are provided to a customer for use only by agencies or branches of the Federal Government and other users authorized by the Federal Government. Services provided to state emergency operations centers are included. These services provide for command and control communications, including communications for national security, emergency preparedness and presidential requirements. They are required to assure continuity of Government in emergency and crisis situations and to provide for national security.

Services for command and control communications and for national security and emergency preparedness sometimes require short notice and short duration service provisions. These provisions are especially needed to meet presidential requirements or in response to natural, man-made, or declared emergencies. Requirements of this type cannot be forecasted and are usually needed for a relatively short period. The provision of service under these conditions may require the availability of facilities, such as portable microwave equipment, which are provided on a temporary basis by the Telephone Company or customer.

**ACCESS SERVICE**10. Special Federal Government Access Services (Cont'd)10.2 Emergency Conditions

These services will be provided on the date requested or as soon as possible thereafter when the emergency falls into one of the following categories:

- State of crisis declared by the National Command Authorities (includes commitments made to the National Communications System in the “National Plan for Emergencies and Major Disasters”).
- Efforts to protect endangered U.S. personnel or property both in the U.S. and abroad. (Includes space vehicle recovery and protection efforts.)
  - Communications requirements resulting from hostile action, a major disaster or a major civil disturbance.
- The Director (Cabinet level) of a Federal department, Commander of a Unified/Specified Command, or head of a military department has certified that a communications requirement is so critical to the protection of life and property or to the National Defense that it must be processed immediately.
- Political unrest in foreign countries that affect the national interest.
- Presidential service.

10.3 Facility Availability

In order to insure communications during periods of emergency, the Telephone Company will, within the limits of good management, make available the necessary facilities to restore service in the event of damage or to provide temporary emergency service.

In order to meet the requirements of agencies or branches of the Federal Government, the Telephone Company may utilize Government-owned facilities, when necessary to provide service.

10.4 Federal Government Regulations

In accordance with Federal Government Regulations, all service provided to the Federal Government will be billed in arrears. However, this provision does not apply to other customers that obtain services under the provisions of this tariff to provide their services to the Federal Government.

**ACCESS SERVICE**10. Special Federal Government Access Services (Cont'd)10.5 Service Offerings to the Federal Government

The following unique services are provided to a customer for use only by agencies or branches of the Federal Government, other authorized users and state emergency operations centers. The rates and charges for these services shall be developed on an individual case basis and shall be consistent with the rates and charges for services offered in other sections of this tariff.

10.5.1 Type and Description(A) Voice Grade Special Access Services(1) Voice Grade Secure Communications Type I

Approximate bandwidth of 10-50,000 Hz. Furnished for two-point secure communications on two-wire or four-wire metallic facilities between a customer designated premises and an end user's premises. Services are conditioned as follows:

T-3 Conditioning — The absolute loss (referenced to 1 milliwatt) with respect to frequency shall not exceed:

15 dB at 10 Hz  
 13 dB at 100 Hz  
 9 dB at 1,000 Hz  
 20 dB at 10,000 Hz  
 30 dB at 50,000 Hz

Additional conditioning (available in one or two directions on four-wire facilities only) to provide the following characteristics:

The absolute loss (referenced to one milliwatt) with respect to frequency shall not exceed:

0 dB at 1,000 Hz  
 $\pm 1$  dB between 1,000 Hz and 40,000 Hz  
 $\pm 2$  dB between 10 Hz and 50,000 Hz  
 (+ means more loss)

The net loss of the conditioned service (with or without additional conditioning) shall not vary by more than four dB at 1,000 Hz from the levels ~~specified preceding. Voice frequency signaling or supervisory tones can be~~ transmitted.

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**ACCESS SERVICE**10. Special Federal Government Access Services (Cont'd)10.5 Service Offerings to the Federal Government (Cont'd)10.5.1 Type and Description (Cont'd)(A) Voice Grade Special Access Services (Cont'd)(2) Voice Grade Secure Communications Type II

Approximate bandwidth 10-50,000 Hz. Furnished on four-wire metallic facilities for duplex operation for two-point secure communications between a customer designated premises and an end user's premises. Services are conditioned as follows:

G-1 Conditioning — The absolute loss with respect to frequency and the net loss variation shall be the same as Voice Grade Secure Communications Type I services without additional conditioning. Voice frequency signaling or supervisory tones can be transmitted.

(3) Voice Grade Secure Communications Type III

Approximate bandwidth 10-50,000 Hz. Furnished on four-wire metallic facilities for duplex operation for two-point secure communications between a customer designated premises and an end user's premises. Services are conditioned as follows:

G-2 Conditioning — The absolute loss with respect to frequency and the net loss variation from the customer designated premises to the end user's premises shall be the same as Voice Grade Secure Communications Type I services without additional conditioning; from the end user's premises to the customer designated premises shall be the same as Voice Grade Secure Communications Type I services with additional conditioning. Voice frequency signaling or supervisory tones can be transmitted.

**ACCESS SERVICE**10. Special Federal Government Access Services (Cont'd)10.5 Service Offerings to the Federal Government (Cont'd)10.5.1 Type and Description (Cont'd)(A) Voice Grade Special Access Services (Cont'd)(4) Voice Grade Secure Communications Type IV

Approximate bandwidth 10-50,000 Hz. Furnished on four-wire metallic facilities for duplex operation for two-point secure communication between two customer designated premises. Services are conditioned as follows:

G-3 Conditioning — The absolute loss with respect to frequency and the net loss variation shall be the same in both directions of transmission as Voice Grade Secure Communications Type I services with additional conditioning. Voice frequency signaling or supervisory tones can be transmitted.

(B) Wideband Digital Special Access Service

Service arrangements for secured communications to accommodate the transmission of binary digital base band signals in a random polar format.

(1) Wideband Secure Communications Type I

For transmission at the rate of 18,750 bits per second.

(2) Wideband Secure Communications Type II

For transmission at the rate of 50,000 bits per second.

(3) Wideband Secure Communications Type III

To accommodate the transmission of restored polar two-level facsimile signals with a minimum signal element width of twenty microseconds at a rate of 50,000 bits per second. To accommodate the transmission of binary digital base band signals in a random polar format at the rate of 50,000 bits per second.

**ACCESS SERVICE**10. Special Federal Government Access Services (Cont'd)10.5 Service Offerings to the Federal Government (Cont'd)10.5.1 Type and Description (Cont'd)(C) Government Emergency Telecommunications Service (GETS)

The Government Emergency Telecommunications Service (GETS) provides authorized federal government end users with a national security and emergency preparedness (NS/EP) switched voice and data communications service utilizing the public switched network through the activation of a special code(s) in the telephone company end offices and tandem switching offices as requested by the Federal Government or its authorized agent. Access to GETS is accomplished through the use of the 710 non-geographical numbering plan area (NPA) code utilizing the public switched network and an interexchange carrier (IC) designated by the Federal Government or its authorized agent as a GETS-designated IC. Applicable access charges under other provisions of this tariff will apply for the underlying switched access services provided. The jurisdictional nature of GETS features is 100 percent interstate. GETS facilities may not be used for non-emergency government telecommunications, non-GETS services or by unauthorized end users.

(1) GETS Alternate Carrier Routing (ACR) Feature

ACR is an advanced intelligent network feature available in suitably equipped offices. The ACR feature provides for the routing of the GETS universal access number to a sequence of GETS ICs. ACR allows NS/EP users to utilize the public switched network to provide enhanced call completion capability on calls made during times of a national emergency or disaster. ACR provides alternate route capability on calls originated from lines served by end offices equipped with the ACR feature to the GETS universal access number.

When the presubscribed IC is a participating GETS IC, GETS ACR enables calls first to be routed for completion to the presubscribed IC of the originating line. When the presubscribed IC is not a participating GETS IC, then an office selection table determines the GETS IC. The office selection table contains three alternatives for a GETS IC and is pre-selected on an per end office basis using data provided by the Federal Government or its authorized agent. Monthly and non-recurring charges apply at each office as set forth in Section 17 following.

**ACCESS SERVICE**10. Special Federal Government Access Services (Cont'd)10.5 Service Offerings to the Federal Government (Cont'd)10.5.1 Type and Description (Cont'd)(C) Government Emergency Telecommunications Service (GETS) (Cont'd)(2) GETS High Probability of Completion (HPC) Feature

HPC is a set of enhanced features, available in suitably equipped offices, which improves the probability of the completion of GETS traffic via the public switched telephone network (PSTN) during times of a national emergency or disaster when the PSTN is congested due to heavy traffic or damage to the network. The HPC feature sets the call priority value and provides the capability to queue the GETS NS/EP access call against a busy switched access trunk group in a route list until a member of that trunk group becomes idle. As soon as a trunk group member becomes idle, it is offered to the queued GETS NS/EP access call before any other calls are processed. The HPC feature works with switched access trunk groups equipped with SS7 out of band signaling or equal access multifrequency address signaling.

10.5.2 Mileage Application

Mileage, when used for rate application between the serving wire centers of two customer designated premises, shall be determined by the V and H Coordinates Method as set forth in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC., TARIFF F.C.C. NO. 4 and administered as set forth in Section 7.2.5 preceding.

**ACCESS SERVICE**10. Special Federal Government Access Services (Cont'd)10.6 Rates and Charges10.6.1 General

The rates and charges for special offerings to the Federal Government, such as those set forth in Sections 10.5.1(A) and 10.5.1(B) preceding, are developed on an individual case basis and are set forth in Section 17 following. The rates and charges for GETS are set forth in Section 17 following.

10.6.2 Voice Grade Special Access

The provision of T-3 and G conditioned services contemplates station and tandem switching operations, using customer provided equipment, as well as Special Access Service. Separate narrowband or voice grade services, where required by the customer provided equipment or switching operation, are furnished in accordance with the applicable sections of this tariff.

10.6.3 Move Charges

- (A) When a service without a termination charge associated with that service, as set forth in Section 17 following, is moved to a different building, the nonrecurring charge applies; when moved to a new location in the same building, a charge of one-half of the nonrecurring charge applies.
- (B) When service with a termination charge associated with that service, as set forth in Section 17 following, is moved and reinstalled at a new location, the customer may elect:
- to pay the unexpired portion of the termination charge for the service, if any, with the application of a nonrecurring charge and the establishment of a new termination charge for such service at the new location, or
  - to continue service subject to the unexpired portion of the termination charge, if any, and pay the estimated costs of moving such service, provided that the customer requests these charges be quoted prior to ordering the service move. Charges for moving such service will be based on estimated costs attributable to the move.

Move charges include the estimated costs of removal, restoration of services or facilities necessitated by the move, transportation, storage, reinstallation, engineering, labor, supervision, materials, administration, and any other ~~specific items of cost directly attributable to the move.~~

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**ACCESS SERVICE****11. Special Facilities Routing of Access Services****11.1 Description**

The services provided under this tariff are provided over such routes and facilities as the Telephone Company may elect. Special Facilities Routing is involved when, in order to comply with requirements specified by the customer, the Telephone Company provides Switched Access Service, Special Access Service or Special Federal Government Access Service in a manner that includes one or more of the following conditions:

**11.1.1 Diversity**

Two or more circuits must be provided over not more than two different physical routes.

**11.1.2 Avoidance**

A circuit(s) must be provided on a route, which avoids specified geographical locations.

**11.1.3 Diversity and Avoidance Combined****11.1.4 Cable-Only Facilities**

Certain Voice Grade services are provided on Cable-Only Facilities to meet the particular needs of a customer. Service is provided subject to the availability of Cable-Only facilities. In the event of service failure, restoration will be made through the use of any available facilities as selected by the Telephone Company.

Avoidance and Diversity are available on Switched Access Service as set forth in Section 6 preceding; Metallic, Telegraph Grade and Voice Grade Special Access Services as set forth, respectively, in Sections 7.4, 7.5 and 7.6 preceding and Special Federal Government Access Services as set forth in Section 10.5 preceding. Cable-Only Facilities are available for Switched Access Service as set forth in Section 6 preceding; Voice Grade Special Access Services as set forth in Section 7.6 preceding and Special Federal Government Access Services as set forth in Section 10.5 preceding.

In order to avoid the compromise of special routing information, the Telephone Company will provide the required routing information for each specially routed service to only the ordering customer. If requested by the customer, this information will be provided when service is installed and prior to any subsequent changes in routing. The rates and charges for Special Facilities Routing of Access Services are ~~developed on an individual case basis. Such rates and charges for Special Facilities~~ Routing of Access Services are as set forth in Section 17 following and are in addition to all other rates and charges that may be applicable for services provided under other sections of this tariff.

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**ACCESS SERVICE**12. Specialized Service or Arrangements12.1 General

Specialized Service or Arrangements may be provided by the Telephone Company, at the request of a customer, on an Individual Case Basis if such service or arrangements meet the following criteria:

- The requested service or arrangements are not offered under other sections of this tariff.
- The facilities utilized to provide the requested service or arrangements, are of a type normally used by the Telephone Company in furnishing its other services.
- The requested service or arrangements are provided within a LATA.
- The requested service or arrangements are compatible with other Telephone Company services, facilities, and its engineering and maintenance practices.
- This offering is subject to the availability of the necessary Telephone Company personnel and capital resources.

Rates and charges and additional regulations if applicable, for Specialized Service or Arrangements are provided on an Individual Case Basis and are as set forth in Section 17 following.

## ACCESS SERVICE

### 13. Additional Engineering, Additional Labor and Miscellaneous Services

Section 13.1 addresses Additional Engineering. Section 13.2 addresses Additional Labor (which is comprised of Overtime Installation, Overtime Repair, Standby, Testing and Maintenance with Other Telephone Companies, and Other Labor). Section 13.3 addresses Miscellaneous Services (which are comprised of Testing Services, Maintenance of Service and Telecommunications Service Restoration Priority). Section 13.4 addresses Presubscription.

In this section, normally scheduled working hours are an employee's scheduled work period in any given calendar day (e.g., 8:00 a.m. to 5:00 p.m.) for the application of rates based on working hours. A Miscellaneous Service Order charge as described in Section 5.4.2 preceding may be applicable to services ordered from this section.

#### 13.1 Additional Engineering

Additional Engineering, including engineering reviews as set forth in Section 5.4.3 preceding, will be undertaken only after the Telephone Company has notified the customer that additional engineering charges apply as set forth in Section 17 following, and the customer agrees to such charges. Additional Engineering will be provided by the Telephone Company at the request of the customer only when:

- (A) A customer requests additional technical information after the Telephone Company has already provided the technical information normally included on the Design Layout Report (DLR) as set forth in Sections 6.1.5 and 7.1.6 preceding.
- (B) Additional Engineering time is incurred by the Telephone Company to engineer a customer's request for a customized service as set forth in Section 7.1.2 preceding.
- (C) A customer requested Design Change requires the expenditure of Additional Engineering time. Such Additional Engineering time is incurred by the Telephone Company for the engineering review as set forth in Section 5.4.3 preceding. The charge for additional engineering time relating to the engineering review, which is undertaken to determine if a design change is indeed required, will apply whether or not the customer authorizes the Telephone Company to proceed with the Design Change. In this case the Design Change charge, as set forth in Section 17 following, does not apply unless the customer authorizes the Telephone Company to proceed with the Design Change.

**ACCESS SERVICE**13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.2 Additional Labor

Additional Labor is that labor requested by the customer on a given service and agreed to by the Telephone Company as set forth in Sections 13.2.1 through 13.2.5 following. The Telephone Company will notify the customer that Additional Labor charges as set forth in Section 17 following will apply before any additional labor is undertaken. A call-out of a Telephone Company employee at a time not consecutive with the employee's scheduled work period is subject to a minimum charge of four hours. When provisioning or restoring Telecommunications Service Priority services, the Telephone Company will, when possible, notify the customer of the applicability of these Additional Labor charges.

13.2.1 Overtime Installation

Overtime installation is that Telephone Company installation effort outside of normally scheduled working hours.

13.2.2 Overtime Repair

Overtime repair is that Telephone Company effort performed outside of normally scheduled working hours.

13.2.3 Standby

Standby includes all time in excess of one-half (1/2) hour during which Telephone Company personnel standby to make installation acceptance tests or cooperative tests with a customer to verify facility repair on a given service.

13.2.4 Testing and Maintenance with Other Telephone Companies

Additional testing, maintenance or repair of facilities which connect other telephone companies is that which is in addition to the normal effort required to test, maintain or repair facilities provided solely by the Telephone Company.

13.2.5 Other Labor

Other labor is that additional labor not included in Sections 13.2.1 through 13.2.4 preceding and labor incurred to accommodate a specific customer request that involves only labor which is not covered by any other section of this tariff.

**ACCESS SERVICE**13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.3 Miscellaneous Services13.3.1 Testing Services

Testing Services offered under this section of the tariff are optional and subject to rates and charges as set forth in Section 17 following. A call-out of a Telephone Company employee at a time not consecutive with the employee's scheduled work period is subject to a minimum charge of four hours. Other testing services, as described in Sections 6.2.4 and 7.1.7 preceding, are provided by the Telephone Company in association with Access Services and are furnished at no additional charge.

Testing Services are normally provided by Telephone Company personnel at Telephone Company locations; however, provisions are made in Section 13.3.1(B)(2) following for a customer to request Telephone Company personnel to perform Testing Services at the customer designated premises.

The offering of Testing Services under this section of the tariff is made subject to the availability of the necessary qualified personnel and test equipment at the various test locations mentioned in Sections 13.3.1(A) and 13.3.1(B) following.

(A) Switched Access Service

Testing Services for Switched Access are comprised of (a) tests which are performed during the installation of a Switched Access Service, (i.e., Acceptance Tests), (b) tests which are performed after customer acceptance of such access services and which are without charge (i.e., routine testing) and (c) additional tests which are performed during or after customer acceptance of such access services and for which additional charges apply, (i.e., Additional Cooperative Acceptance Tests and in-service tests).

Routine tests are those tests performed by the Telephone Company on a regular basis, as set forth in Section 6.2.4 preceding which are required to maintain Switched Access Service. Additional in-service tests may be done on an automatic basis (no Telephone Company or customer technicians involved), on a manual basis [Telephone Company technician(s) involved at Telephone Company office(s) and Telephone Company or customer technician(s) involved at the customer designated premises].

**ACCESS SERVICE**13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.3 Miscellaneous Services (Cont'd)13.3.1 Testing Services (Cont'd)(A) Switched Access Service (Cont'd)

Testing services are ordered to the Dial Tone Office for FGA, to the access tandem or end office for FGB (wherever the FGB service is ordered) and to the end office for FGC and FGD. Testing Services for Directory Assistance Service not routed through an access tandem is ordered to a Directory Assistance Location for each NPA.

(1) Additional Cooperative Acceptance Testing

Additional Cooperative Acceptance Testing of Switched Access Service involves the Telephone Company provision of a technician at its office(s) and the customer provision of a technician at its premises, with suitable test equipment to perform the required tests. Additional Cooperative Acceptance Tests may, for example, consist of the following tests:

- Impulse Noise
- Phase Jitter
- Signal to C-Notched Noise Ratio
- Intermodulation (Nonlinear) Distortion
- Frequency Shift (Offset)
- Envelope Delay Distortion
- Dial Pulse Percent Break

(2) Additional Automatic Testing

Additional Automatic Testing (AAT) of Switched Access Services (Feature Groups B, C and D), is a service where the customer provides remote office test lines and 105 test lines with associated responders or their functional equivalent. The customer may order, at additional charges, gain-slope and C-notched noise testing and may order the routine tests (1004 Hz loss, C-Message Noise and Balance) on an as-needed or more than routine schedule.

The Telephone Company will provide an AAT report that lists the test results for each trunk tested. Trunk test failures requiring customer participation for trouble resolution will be provided to the customer on an as-occurs basis.

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**ACCESS SERVICE**13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.3 Miscellaneous Services (Cont'd)13.3.1 Testing Services (Cont'd)(A) Switched Access Service (Cont'd)(2) Additional Automatic Testing (Cont'd)

The Additional Tests, (i.e., gain slope, C-notched noise, 1004 Hz loss, C-message noise and balance) may be ordered by the customer at additional charges, 60 days prior to the start of the customer prescribed schedule. The rates for Additional Automatic Tests are as set forth in Section 17 following.

(3) Additional Manual Testing

Additional Manual Testing (AMT) of Switched Access Services (Feature Groups A, B, C, and D and Directory Access Service not routed through an access tandem), is a service where the Telephone Company provides a technician at its office(s) and the Telephone Company or customer provides a technician at the customer designated premises, with suitable test equipment to perform the required tests. Such additional tests will normally consist of gain-slope and C-notched noise testing. However, the Telephone Company will conduct any additional tests that the IC may request.

The Telephone Company will provide an AMT report listing the test results for each trunk tested. Trunk test failures requiring customer participation for trouble resolution will be provided to the customer on a per occurrence basis.

The Additional Manual Tests may be ordered by the customer at additional charges, 60 days prior to the start of the testing schedule as mutually agreed to by the customer and the Telephone Company.

The rates for Additional Manual Testing are as set forth in Section 17 following.

**ACCESS SERVICE**13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.3 Miscellaneous Services (Cont'd)13.3.1 Testing Services (Cont'd)(A) Switched Access Service (Cont'd)(4) Obligations of the Customer

- (a) The customer shall provide the Remote Office Test Line priming data to the Telephone Company, as appropriate, to support routine testing as set forth in Section 6.2.4(B) preceding or AAT as set forth in Section 13.3.1(A)(2) preceding.
- (b) The customer shall make the facilities to be tested available to the Telephone Company at times mutually agreed upon.

(B) Special Access Service

The Telephone Company will provide assistance in performing specific tests requested by the customer.

- (1) Additional Cooperative Acceptance Testing When a customer provides a technician at its premises or at an end user's premises, with suitable test equipment to perform the requested tests, the Telephone Company will provide a technician at its office for the purpose of conducting Additional Cooperative Acceptance Testing on Voice Grade Services. At the customer's request, the Telephone Company will provide a technician at the customer's premises or at the end user premises. These tests may, for example, consist of the following:

- Attenuation Distortion (i.e., frequency response)
- Intermodulation Distortion (i.e., harmonic distortion)
- Phase Jitter
- Impulse Noise
- Envelope Delay Distortion
- Echo Control
- Frequency Shift

**ACCESS SERVICE**13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.3 Miscellaneous Services (Cont'd)13.3.1 Testing Services (Cont'd)(B) Special Access Service (Cont'd)(2) Additional Manual Testing

The Telephone Company will provide a technician at its premises, and the Telephone Company or customer will provide a technician at the customer's designated premises with suitable test equipment to perform the requested tests.

(3) Obligation of the Customer

When the customer subscribes to Testing Service as set forth in this section, the customer shall make the facilities to be tested available to the Telephone Company at times mutually agreed upon.

13.3.2 Maintenance of Service

(A) When a customer reports a trouble to the Telephone Company for clearance and no trouble is found in the Telephone Company's facilities, the customer shall be responsible for payment of a Maintenance of Service charge as set forth in Section 17 following for the period of time from when Telephone Company personnel are dispatched, at the request of the customer, to the customer designated premises to when the work is completed. Failure of Telephone Company personnel to find trouble in Telephone Company facilities will result in no charge if the trouble is actually in those facilities, but not discovered at the time.

(B) The customer shall be responsible for payment of a Maintenance of Service charge when the Telephone Company dispatches personnel to the customer designated premises, and the trouble is in equipment or communications systems provided by other than the Telephone Company or in detariffed CPE provided by the Telephone Company.

In either Section 13.3.2(A) or 13.3.2(B) preceding, no credit allowance will be applicable for the interruption involved if the Maintenance of Service Charge applies.

**ACCESS SERVICE**13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.3 Miscellaneous Services (Cont'd)13.3.3 Telecommunications Service Priority — TSP

- (A) Priority installation and/or restoration of National Security Emergency Preparedness (NSEP) telecommunications services shall be provided in accordance with Part 64.401, Appendix A, of the Federal Communications Commission's (FCC's) Rules and Regulations.

In addition, TSP System service shall be provided in accordance with the guidelines set forth in "Telecommunications Service Priority (TSP) System for National Security Emergency Preparedness (NSEP) Service Vendor Handbook" (NCSH 3-1-2) dated July 9, 1990, and "Telecommunications Service Priority System for National Security Emergency Preparedness Service User Manual" (NCSM 3-1-1).

The TSP System is a service, developed to meet the requirements of the Federal Government, as specified in the Service Vendor's Handbook and Service User's Manual that provides the regulatory, administrative and operational framework for the priority installation and/or restoration of NSEP telecommunications services. These include both Switched and Special Access Services. The TSP System applies only to NSEP telecommunications services, and requires and authorizes priority action by the Telephone Company providing such services.

For Switched Access Service, the TSP System's applicability is limited to those services that the Telephone Company can discreetly identify for priority provisioning and/or restoration.

- (B) A Telecommunications Service Priority charge applies as set forth in Section 17 when a request to provide or change a Telecommunications Service Priority is received subsequent to the issuance of an Access Order to install the service.

Additionally, a Miscellaneous Service Order Charge as set forth in Section 17 will apply to Telecommunications Service Priority requests that are ordered subsequent to the initial installation of the associated access service.

A Telecommunications Service Priority charge does not apply when a Telecommunications Service Priority is discontinued or when ordered coincident with an Access Order to install or change service.

**ACCESS SERVICE**13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.3 Miscellaneous Services (Cont'd)13.3.3 Telecommunications Service Priority — TSP (Cont'd)

## (B) (Cont'd)

In addition, Additional Labor rates as set forth in Section 17 may be applicable when provisioning or restoring Switched or Special Access Services with Telecommunications Service Priority.

When the customer requests an audit or a reconciliation of the Telephone Company's Telecommunications Service Priority records, a Miscellaneous Service Order Charge as set forth in Section 17 and Additional Labor rates as set forth in Section 17 are applicable.

13.3.4 Miscellaneous Equipment(A) Controller Arrangement

This arrangement enables the customer to control up to 48 transfer functions at a Telephone Company central office via a remote keyboard terminal capable of either 300 or 1200 bps operation. Included as part of the Controller Arrangement is a dial-up data station located at the Telephone Company Central Office to provide access to the Controller Arrangement. This dial-up data station consists of a 212A DATAPHONE data set and an appropriate Telephone Company provided channel.

The Controller Arrangement must be located in the same Telephone Company central office as the transfer functions that it controls.

Charges for the Controller Arrangement are set forth in Section 17 following.

**ACCESS SERVICE**13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.4 Presubscription

Pursuant to the Federal Communications Commission's Memorandum Opinion and Order, CC Docket No. 83-1145, Phase I, adopted May 31, 1985, and released June 12, 1985, the Allocation Plan, outlined in the Appendix B of this Order, will be available for inspection in the Public Reference Room of the Tariff Division at the Federal Communications Commission's Washington, D.C., location or may be obtained from the Commission's commercial contractor.

- (A) Presubscription is the process by which end user customers may select and designate to the Telephone Company an IC to access, without an access code, for interLATA, interstate calls. This IC is referred to as the end user's predesignated IC.
- (B) On the effective date of this tariff, all existing end users have access to interstate MTS/WATS. No later than 85 days prior to conversion to Feature Group D in a serving end office, the Telephone Company will notify end users of the availability of equal access in their particular area. The notification will include the names of all ICs wishing to participate in the presubscription process. This notification will be sent via U.S. Mail to each end user of record served by the end office to be converted.
- (C) End users may select one of the following options at no charge:
  - indicate a primary IC for all of its lines,
  - indicate a different IC for each of its lines.

Only one IC may be selected for each line or lines terminating in the same hunt group.

End users may designate that they do not want to presubscribe to any IC. The end user must arrange this designation by directly notifying the Telephone Company's business office. This choice will require the end user to dial an access code (101XXXX) for all interstate calls.

After the end user's initial selection of a predesignated IC or the designation that they do not want to presubscribe to any IC, for any change in selection after conversion to Equal Access in the serving end office, a nonrecurring charge, as set forth in Section 17 following applies.

**ACCESS SERVICE**13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.4 Presubscription (Cont'd)

- (D) End users not responding to the initial notification will be sent a second notification for the selection of a predesignated IC no earlier than 40 days prior to or no later than 90 days after the conversion to Equal Access in a serving end office. This second notification will indicate the primary IC that has been assigned to them if they fail to respond to the second notification.

After the allocation process has been completed, end users assigned to an IC via the allocation process may change their IC one time within six months after conversion to Equal Access in the serving end office at no charge. Following the six-month period after conversion to Equal Access for any change in selection, a nonrecurring charge as set forth in Section 17 following, applies.

- (E) When an end user indicates more than one IC selection on the return notification or returns an illegible return notification, the Telephone Company will contact the end user for clarification. If the end user indicates an IC selection on the return notification that does not match with information provided by an IC and both notifications indicate the same authorization date, the end user's notification takes precedence and the Telephone Company will process the end user's selection. In the event that two or more ICs provide to the Telephone Company notifications with the same authorization date and neither notification has been processed, the Telephone Company will contact the end user for clarification. A list of these end users in conflict must be sent to the affected IC by the Telephone Company.

In the event that two or more ICs have provided to the Telephone Company notifications with the same authorization date(s), and one IC notification has already been processed by the Telephone Company, those IC notifications not yet processed would be returned to the ICs.

- (F) New end users who are served by end offices equipped with Feature Group D will be asked to presubscribe to an IC at the time they place an order with the Telephone Company for Telephone Exchange Service. They may select either of the following options. There will be no charge for this initial selection.
- designate a primary IC for all of its lines,
  - designate a different IC for each of its lines.

Only one IC may be selected for each individual line, or lines terminating in the same hunt group. Subsequent to the installation of Telephone Exchange Service and after the end user's initial selection of a predesignated IC, for any change in selection, a nonrecurring charge, as set forth in Section 17 following, applies.

**ACCESS SERVICE**13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.4 Presubscription (Cont'd)

- (G) If the new end user fails to designate an IC as its predesignated IC prior to the date of installation of Telephone Exchange Service, the Telephone Company will (1) allocate the end user to an IC based upon current IC presubscription ratios, (2) require the end user to dial an access code (101XXXX) for all interstate calls, or (3) block the end user from interstate calling. The end user will be notified which option will be applied if they fail to presubscribe to an IC. An allocated or blocked end user may designate another, or initial, IC as its predesignated IC one time at no charge, if it is requested within six months after the installation of Telephone Exchange Service.

For any change in selection after 6 months from the installation of Telephone Exchange Service, a nonrecurring charge, as set forth in Section 17 following applies.

- (H) If an IC elects to discontinue its Feature Group D service offering prior to or within 2 years of the conversion, the IC will notify the Telephone Company of the cancellation. The IC will also notify all end users that selected them that they are canceling their service and that they should contact the Telephone Company to select a new primary IC. The IC will also inform the end user that it will pay the presubscription change charge. The canceling IC will then be billed the appropriate charge by the Telephone Company for each end user for a period of two years from the discontinuance of Feature Group D service.
- (I) If an IC elects to change or discontinue use of a Carrier Identification Code (CIC) for any reasons other than those set forth in Section 13.4(H) above, the IC will identify to the Telephone Company any affected end users and advise the Telephone Company of the new CIC to be assigned to these end users. If the CIC change involves a change of carrier for any end users, the IC will notify the affected end users of the change. The Telephone Company will change the predesignated carrier code of each end user identified by the IC to the new CIC and bill the IC the nonrecurring charge set forth in Section 17 following for each end user line or trunk that is changed.

**ACCESS SERVICE**13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.5 Verification of Orders for Long Distance Telemarketing

No IC shall submit to the Telephone Company a Primary Interexchange Carrier (PIC) change order generated by telemarketing unless and until the order has first been confirmed in accordance with one of the following procedures:

- (A) The IC obtains the billed party's (e.g., an end user or the designator of the PIC for a pay telephone) written authorization to submit the PIC change order. The written authorization shall take the form of a letter of agency which:
- shall be a separate document whose sole purpose is to authorize an interexchange carrier to initiate a primary interexchange carrier change.
  - shall be signed and dated by the billed party of the telephone line(s) requesting the primary interexchange carrier change.
  - shall not be combined with inducements of any kind on the same document.
  - shall not suggest or require that the billed party take some action in order to retain the billed party's current interexchange carrier.
  - shall have all portions translated into another language if any portion of the letter of agency is translated into another language.
  - may be combined with checks that contain only the required letter of agency language that follows and the necessary information to make the check a negotiable instrument. At a minimum, the letter of agency should be printed with a type of sufficient size and readable type to be clearly legible and must contain clear and unambiguous language that confirms:
    - The billed party's billing name and address and each telephone number to be covered by the PIC change order; and
    - The billed party's decision to change the PIC to the IC; and
    - The billed party's intention to designate the interexchange carrier to act as its agent for the PIC change; and

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**ACCESS SERVICE**13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.5 Verification of Orders for Long Distance Telemarketing (Cont'd)

## (A) (Cont'd)

- The billed party's understanding that only one interexchange carrier may be designated as the billed party's interstate primary interexchange carrier for any one telephone number. To the extent that a jurisdiction allows the selection of additional primary interexchange carriers, the letter of agency must contain separate statements regarding these choices. Any carrier designated as a primary interexchange carrier must be the carrier directly setting the rates for the billed party. One interexchange carrier can be both the billed party's interstate primary interexchange carrier and a billed party's intrastate primary interexchange carrier; and
  - The billed party's understanding that they may incur a charge for changing the primary interexchange carrier; or
- (B) The IC obtains the billed party's electronic authorization to submit the PIC change order. The billed party will place a call, from the telephone number(s) on which the PIC is to be changed, to a toll free telephone number that is dedicated to the IC's PIC verification process. The verification number will connect the billed party to a voice response unit that records the originating ANI and the required information described in Section 13.5(A) preceding; or
- (C) An appropriately qualified and independent third party, operating in a location physically separate from the telemarketing representative, obtains the billed party's oral authorization to submit the PIC change order. This authorization must confirm the order and include appropriate verification data (e.g., the billed party's date of birth or social security number); or
- (D) Within three business days of the billed party's request for a PIC change, the IC must send them an information package by first class mail which includes:
- a statement that the enclosed information is being sent to confirm a telemarketing order placed by the billed party within the previous week,
  - the name of the current and soliciting ICs,
  - the terms, conditions or charges for the PIC change,
  - the name of the person who ordered the change,
  - the name, address and telephone number of both the customer and the soliciting IC,

**ACCESS SERVICE**13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.5 Verification of Orders for Long Distance Telemarketing (Cont'd)

## (D) (Cont'd)

- a statement advising the billed party that, absent their response, the change will be implemented 14 days from the date the information package was mailed to them,
- the name, address and telephone number of a contact point at the FCC for consumer complaints.

The IC must provide a postpaid postcard that the billed party can use to deny, cancel or confirm the order. The IC must wait 14 days after the information package is mailed to the billed party before submitting the PIC change order to the Telephone Company.

13.6 Unauthorized PIC Change

If an IC requests a Primary Interexchange Carrier (PIC) change on behalf of a billed party (e.g., an end user or the designator of the PIC for a pay telephone), and the billed party subsequently denies requesting the change, and the IC is unable to substantiate the change with a letter of authorization signed by the billed party; then:

- The billed party will be reassigned to its previously selected IC. No charge will apply to the billed party for this reassignment.
- The Unauthorized Presubscription Change Charge as set forth in Section 17 will apply to the IC that requested the unauthorized PIC change. This charge is applied in addition to the \$5.00 PIC change charge.

13.7 Presubscription Exceptions

When centralized Equal Access is provided in cooperation with Minnesota Independent Equal Access Corporation, the following presubscription exceptions apply:

- The initial Telephone Company notification to end users of the availability of Equal Access in their particular area will be provided between 105 and 270 days prior to the conversion of the serving end office to Feature Group D.
- The second notification for the selection of presubscribed IC will be between 65 and 230 days prior to the conversion to Equal Access in a serving end office.

**ACCESS SERVICE**13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.7 Presubscription Exceptions (Cont'd)

- All end users will be notified by the Telephone Company of the actual conversion date to Equal Access between one and three weeks prior to such conversion. This notification will also show the end user's selected or assigned IC and will advise the end user that if they desire to change their presubscribed IC they may contact the Telephone Company prior to the conversion of their end office and the change will be made at no charge.

13.8 Blocking Service13.8.1 International Blocking Service

The Telephone Company will provide International Blocking Service to customers who obtain local exchange service from the Telephone Company under its general or local exchange tariffs and to customers who obtain Feature Group A Switched Access service under this tariff. This service is only provided at appropriately equipped Telephone Company end offices.

On each line or trunk for which International Blocking Service is ordered, the Telephone Company will block all direct dialed international calls that use the call sequence of 011+ or 101XXXX-011+. When capable, the Telephone Company will route the blocked calls to a recorded message.

An International Blocking Service charge as set forth in Section 17 following is applicable for each new or existing exchange line or trunk or Feature Group A Switched Access line to which International Blocking Service is added or removed. This charge does not apply when blocking is removed from an exchange line or trunk or Feature Group A Switched Access line at the same time that it is disconnected.

A Miscellaneous Service Order Charge as set forth in Section 17 will apply to orders adding or removing International Blocking Service that are placed subsequent to the initial installation of the associated exchange line(s) or trunk(s) or Feature Group A Switched Access line(s). This charge does not apply when blocking is removed from an exchange line or trunk or Feature Group A Switched Access line at the same time that it is disconnected.

**ACCESS SERVICE**13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.8 Blocking Service (Cont'd)13.8.2 900 Blocking Service

The Telephone Company will provide 900 Blocking Service to customers who obtain local exchange service from the Telephone Company under its general or local exchange tariffs and to customers who obtain Feature Group A Switched Access service under this tariff. This service is only provided at appropriately equipped end offices.

On each line or trunk for which 900 Blocking Service is ordered, the Telephone Company will block all direct dialed calls placed to a 900 number. When capable, the Telephone Company will route the blocked calls to a recorded message.

A Blocking Service charge as set forth in Section 17 following is applicable when ordered by the end user customer with the following exceptions:

- Blocking access to 900 Service is offered to all subscribers at no charge from November 1, 1993 through December 31, 1993.
- Blocking access to 900 Service is offered to all subscribers at no charge at the time telephone service is established at a new number and for 60 days thereafter.

The Blocking Service charge is applied for each line, trunk or Feature Group A Switched Access service to which 900 Blocking Service is added or removed. Requests by subscribers to remove 900 Blocking Service must be in writing. This charge does not apply when blocking is removed from an exchange line or trunk or Feature Group A Switched Access line at the same time that it is disconnected.

**ACCESS SERVICE**13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.9 Billing Name and Address Service13.9.1 General Description

- (A) Billing Name and Address (BNA) Service is the provision by the Telephone Company to an interstate service provider who is a customer of the Telephone Company of the complete billing name, street address, city or town, state and zip code for a telephone number or calling card account number assigned by the Telephone Company. An interstate service provider is defined as an interexchange carrier, an operator service provider, an enhanced service provider or any other provider of interstate telecommunications services.
- (B) BNA Service is provided only for the purposes of allowing customers to bill their end users for telephone services provided by the customer, order entry and customer service information, fraud prevention identification of end users who have moved to a new address, any purpose associated with equal access requirement, and information associated with Local Exchange Carrier (LEC) calling calls card calls, collect and third party calls.

BNA information may not be resold or used for any other purpose including, but not limited to, marketing or merchandising activities.

- (C) BNA information associated with listed/published telephone numbers will be provided. Requests for BNA information associated with nonpublished and unlisted telephone numbers will be provided, unless the subscriber to a nonpublished or unlisted telephone number has affirmatively that requested its BNA not be disclosed.

13.9.2 Undertaking of the Telephone Company

- (A) A standard format for the receipt of BNA requests and the provision of BNA information will be established by the Telephone Company.
- (B) Standard response to BNA requests will be by First Class Mail. Standard format will be on paper. Optional Magnetic Tape formatting will be offered where available.
- (C) Where facilities are available, the customer may request an optional specialized output format required to meet a specific customer need.

**ACCESS SERVICE**13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.9 Billing Name and Address Service (Cont'd)13.9.2 Undertaking of the Telephone Company (Cont'd)

- (D) The Telephone Company will make every effort to provide accurate and complete BNA data. The Telephone Company makes no warranties, expressed or implied, as to the accuracy or completeness of this information.
- (E) The Telephone Company will not disclose BNA information to parties other than interstate service providers and their authorized billing agents as defined in Section 13.9.1(A) preceding. BNA disclosure is limited to those purposes as defined in Section 13.9.1(B) preceding.
- (F) The Telephone Company reserves the right to request from an interstate service provider who has placed an order for BNA service, the source data upon which the interexchange carrier has based the order. This request is made to ensure that the BNA information is to be used only for purposes as described in Section 13.9.1(B) preceding. The Telephone Company will not process the order until such time as the interstate service provider supplies the requested data.

13.9.3 Obligations of the Customer

- (A) The customer shall order BNA Service on a separate BNA Order. The order must identify both the customer's authorized representative and the address to which the information is to be sent.
- (B) The customer shall treat all BNA information as confidential. The customer shall insure that BNA information is used only for the purposes as described in Section 13.9.1(B) preceding.
- (C) The customer shall not publicize or represent to others that the Telephone Company jointly participates with the customer in the development of the customer's end user records it assembles through the use of BNA Service.
- (D) Upon request, the customer will provide to the Telephone Company the source data upon which the customer has based an order for BNA service. The Telephone Company will not process the order until such time as the customer provides the requested data.

**ACCESS SERVICE**13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.9 Billing Name and Address Service (Cont'd)13.9.4 Rate Regulations

- (A) For each order for BNA information received by the Telephone Company, a BNA Order Charge applies. In addition, a charge applies for each customer specific record provided. The BNA Order Charge and the Per Record Charge are specified in Section 17 following.
- (B) Where available, the customer may order the response formatted on Magnetic Tape. The Optional Magnetic Tape Charge is specified in Section 17 following and is in addition to the BNA Order Charge and the BNA Record Charge.
- (C) Where available, the customer may order an output format other than a standard paper format in order to meet a customer's specific requirement. This option is subject to an hourly programming charge as specified in Section 17 following and is in addition to the BNA Order Charge and the BNA Record Charge.

13.10 Originating Line Screening (OLS) Service

The Telephone Company will provide OLS Service to aggregators and other customers who obtain local exchange service from the Telephone Company under its general and/or local exchange tariff. OLS service enables customers to determine whether there are billing restrictions on exchange service lines from which a call originates. OLS service delivers codes on operator assisted calls made from aggregator locations to identify calls originating from privately owned payphones, inmate locations, and hotels/motels, etc.

OLS Service is provided at no charge when ordered with the installation of new local exchange service. However, when an OLS code is added to an existing exchange service line, a charge is applied as set forth in Section 17. This charge is applied for each exchange service line to which an OLS code is assigned. The customer must specify the number of exchange service lines and each individual telephone number equipped.

A Miscellaneous Service Order Charge as set forth in Section 17 will apply to orders adding OLS codes that are placed subsequent to the initial installation of the associated exchange service line. This charge does not apply when OLS codes are removed from an exchange service line at the same time that the exchange service line is disconnected.

OLS codes may be delivered using Line Information Database (LIDB) or Flexible Automatic Number Identification (Flex ANI) technology.

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**ACCESS SERVICE**13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.11 Nonchargeable Confirmation Services13.11.1 Billed Number Screening (BNS)

At the request of the customer, the Telephone Company business office will confirm BNS codes associated with a line to which a call is to be billed.

13.11.2 Originating Line Screening (OLS)

At the request of the customer, the Telephone Company business office will confirm OLS codes associated with an exchange service line from which a call originates.

13.12 Coin Supervision Additive Service

The Telephone Company will provide Coin Supervision Additive Service to Payphone Service Providers (PSPs) who order local exchange service lines for the provision of pay telephone service and where the pay telephone equipment connected to the local exchange service lines requires central office coin supervision capability. The local exchange service lines used for the provision of pay telephone service are obtained from and subject to the terms and conditions under the Telephone Company's general and/or local tariffs.

A Coin Supervision Additive Service provides the capability of central office line equipment to pass signals and/or tones from a local exchange service line to a trunk terminating at the PSP's operator service provider. These signals enable an operator service provider to recognize coin deposits and return coins to the pay telephone user. Coin Supervision Additive Service also permits a suitably equipped operator service provider to automatically ring back the originating local exchange service line upon completion of a call.

A Coin Supervision Additive Service charge as set forth in Section 17 following is assessed monthly to the PSP for each local exchange service line for which Coin Supervision Additive Service is provided.

**ACCESS SERVICE**13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.14 Local Number Portability Services

Local Number Portability (LNP) provides an end user of local exchange telecommunications service the ability to retain its existing local exchange service telephone number (TN) when changing from one local exchange telecommunications carrier to another. LNP capability will be activated in Telephone Company end office or tandem switches based upon receipt of a request by another local exchange telecommunications carrier. The technical specifications for Local Number Portability are contained in Telcordia Technologies Technical Reference GR-2936-CORE.

13.14.1 Local Number Portability End User Service

The Local Number Portability End User Charge will be billed to local exchange service end users, resellers of the Telephone Company's local exchange service, line side access customers, and purchasers of unbundled switch ports that are served by an LNP capable serving wire center. The Local Number Portability End User Charge recovers the Telephone Company's costs directly related to implementing and providing Local Number Portability.

The Telephone Company will bill a monthly Local Number Portability End User Charge as set forth in Section 17 to local exchange service end users, resellers of the Telephone Company's local exchange service, line side access customers, and purchasers of unbundled switch ports served by an LNP capable wire center with the following exceptions:

- Each PBX trunk shall be assessed the equivalent of nine monthly LNP End User Charges as specified in Section 17.
- Each ISDN PRI arrangement shall be assessed the equivalent of five monthly LNP End User Charges as specified in Section 17.
- Lifeline end user customers shall not be assessed the LNP End User Charge.

**ACCESS SERVICE**13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.14 Local Number Portability Services (Cont'd)13.14.1 Local Number Portability End User Service (Cont'd)

The Telephone Companies listed in Section 17 will recover the Local Number Portability End User Charge for the remainder of a 60 month period already in progress beginning with the effective date of the rate and ending with the termination date of the rate as specified in Section 17.

The Telephone Companies listed in Section 17 will recover the Local Number Portability End User Charge for a 60-month period beginning with the effective date of the rate as specified in Section 17.

13.14.2 Local Number Portability Query Service(A) Description

LNP Query Service uses Advanced Intelligent Network (AIN) technology and the Common Channel Signaling (CCS) network to query an LNP database to obtain network routing instructions before completion of a call. The LNP database contains all of the TNs within an NXX and the location routing number (LRN) of the switch serving each of those TNs when at least one of the TNs within the NXX has been transferred from one local exchange telecommunications carrier to another. The LRN associates a unique NPA-NXX-XXXX routing number with each central office switch that has subscribers who have transferred their TNs.

Where more than one carrier is involved in completing the call, the carrier prior to the terminating carrier (i.e., the N-1 carrier) is responsible for querying an LNP database to obtain the LRN used in routing the call for a number portable NXX code. When the N-1 carrier forward a non-queried call to a Telephone Company end office or tandem switch and the NXX code has one or more transferred TNs, the Telephone Company's end office or tandem switch will suspend call processing and formulate and launch a query to an LNP database to secure the LRN of the transferred TN. When the LRN has been returned from an LNP database to the Telephone Company end office or tandem switch originating the query, call processing is resumed and the call is either processed in the Telephone Company's network or routed to the correct local service provider's network for completion to the called party. The Telephone Company will perform the query on behalf of the N-1 carrier (i.e., the LNP query service customer) that forwarded the call. The Telephone Company will bill the N-1 wireline or wireless telecommunications carrier a charge per query as specified in Section 17, regardless of whether the call is completed.

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**ACCESS SERVICE**13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.14 Local Number Portability Services (Cont'd)13.14.2 Local Number Portability Query Service (Cont'd)(A) Description (Cont'd)

An LNP Order Charge will apply on a per order basis for those customers that have ordered LNP Query Service. N-1 carriers who terminate non-queried traffic into the Telephone Company's network and have not placed an order for LNP Query Service will be assessed on a per account basis an LNP Billing Charge.

(B) Limitations

LNP Query Service is to be used only on a call-by-call basis for routing calls to number portable NXX codes and cannot be used for purposes other than those functions described herein.

(C) Network Management

The Telephone Company will administer its network to ensure the provision of acceptable service levels to all customers of the LNP Query Service. The Telephone Company reserves the right to block any LNP query traffic in a nondiscriminatory manner, where the processing of the LNP queries threatens to disrupt operation of its network and impair network reliability.

(D) Rate Regulations

The LNP charge per query recovers the cost to query an LNP database on behalf of the N-1 carrier. The rate associated with an LNP query will be billed monthly, per query as set forth in Section 17 based on the recorded number of queries. The Telephone Company will develop monthly charges based on an average number of queries per month if actual query recordings are not available. For billing purposes, each month is considered to have thirty (30) days.

The LNP Order Charge and LNP Billing Charge recover the cost to establish the customer's LNP query account. The LNP Order Charge will be billed per order as set forth in Section 17 to those customers that have ordered LNP Query Service. The LNP Billing Charge will be applied per account as set forth in Section 17 to the N-1 carrier who terminates non-queried traffic into the Telephone Company's network and has not placed an order for LNP Query Service.

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**ACCESS SERVICE**14. Exceptions to Access Service Offerings

The services offered under the provisions of this tariff are subject to availability as set forth in Section 2.1.4 preceding. In addition, the following exceptions apply:

(Paragraphs 14.1 through 14.5 following are reserved for future listings as a result of a subsequent survey. In the meantime, in planning an end-to-end service, the customer should contact the Telephone Company in each customer designated premises city to assure itself that all of the service or service components required for a given customer service are currently available.)

- 14.1 The following service(s) is (are) not offered in the operating territory of listed Issuing Carriers.
- 14.2 The following offering(s) is (are) limited to existing locations. No inside moves, rearrangements or additions will be permitted.
- 14.3 The following offering(s) is (are) limited to existing locations. Inside moves or rearrangements may be undertaken. However, no additions will be permitted.
- 14.4 The following offering(s) is (are) limited to existing locations where additional units may be added for growth. Inside moves or rearrangements may be undertaken.
- 14.5 The following offering(s) is (are) limited to existing locations where additional units may be added for growth. However inside moves or rearrangements will not be permitted.

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## ACCESS SERVICE

### 15. Access Service Interfaces and Transmission Specifications

Section 15.1 contains Switched Access Service Options (which are comprised of Interface Groups, Supervisory Signaling, Entry Switch Receive Level and Local Transport Termination) and Transmission Specifications. Section 15.2 describes Special Access Service Network Channel (NC) codes and Network Channel Interface (NCI) codes. Section 15.3 contains Interface Group, Premises Interface Code and Standard Transmission Specifications applicable to Directory Access Service.

#### 15.1 Switched Access Service

Ten Interface Groups are provided for terminating the Local Transport Entrance Facility at the customer's designated premises. Each Interface Group provides a specified premises interface (e.g., two-wire, four-wire, DS1, etc.). Where transmission facilities permit, and at the option of the customer, the Entrance Facility may be provided with optional features as set forth in Section 15.1.1 following.

As a result of the customer's access order and the type of Telephone Company transport facilities serving the customer designated premises, the need for signaling conversions or two-wire to four-wire conversions, or the need to terminate digital or high frequency facilities in channel bank equipment may require that Telephone Company equipment be placed at the customer designated premises. For example, if a voice frequency interface is ordered by the customer and the Telephone Company facilities serving the customer designated premises are digital, then Telephone Company channel bank equipment must be placed at the customer designated premises in order to provide the voice frequency interface ordered by the customer.

##### 15.1.1 Local Transport Interface Groups

Interface Groups are combinations of technical parameters, which describe the Telephone Company handoff at the point of termination at the customer designated premises. The technical specifications concerning the available interface groups are set forth in Sections 15.1.1(A) through 15.1.1(D) following.

Interface Group 1 is provided with Type C Transmission Specifications, as set forth in Section 15.1.2(C) following, and Interface Groups 2 through 10 are provided with Type A or B Transmission Specifications, as set forth, respectively, in Section 15.1.2(E) and 15.1.2(F) following, depending on the Feature Group and whether the Access Service is routed directly or through an access tandem. All Interface Groups are provided with Data Transmission Parameters.

Only certain premises interfaces are available at the customer designated premises. The premises interfaces associated with the Interface Groups may vary among Feature Groups.

**ACCESS SERVICE**15. Access Service Interfaces and Transmission Specifications (Cont'd)15.1 Switched Access Service (Cont'd)15.1.1 Local Transport Interface Groups (Cont'd)(A) Interface Group 1

Interface Group 1, except as set forth in the following, provides two-wire voice frequency transmission at the point of termination at the customer designated premises. The interface is capable of transmission of voice and associated telephone signals within the frequency bandwidth of approximately 300 to 3000 Hz.

Interface Group 1 is not provided in association with FGC and FGD when the first point of switching is an access tandem. In addition, Interface Group 1 is not provided in association with FGB, FGC or FGD when the first point of switching provides only four-wire terminations.

The transmission path between the point of termination at the customer designated premises and the customer's serving wire center may be comprised of any form or configuration of plant capable of and typically used in the telecommunications industry for the transmission of voice and associated telephone signals within the frequency bandwidth of 300 to 3000 Hz.

The interface is provided with loop supervisory signaling. When the interface is associated with FGA, such signaling will be loop start or ground start signaling. When the interface is associated with FGB, FGC or FGD, such signaling, except for two-way calling, which is E&M signaling, will be reverse battery signaling.

**ACCESS SERVICE**15. Access Service Interfaces and Transmission Specifications (Cont'd)15.1 Switched Access Service (Cont'd)15.1.1 Local Transport Interface Groups (Cont'd)(B) Interface Group 2

Interface Group 2 provides four-wire voice frequency transmission at the point of termination at the customer designated premises. The interface is capable of transmission of voice and associated telephone signals within the frequency bandwidth of approximately 300 to 3000 Hz.

The transmission path between the point of termination at the customer designated premises and the customer's serving wire center may be comprised of any form or configuration of plant capable of and typically used in the telecommunications industry for the transmission of voice and associated telephone signals within the frequency bandwidth of approximately 300 to 3000 Hz.

The interface is provided with loop supervisory signaling. When the interface is associated with FGA, such signaling will be loop start or ground start signaling. When the interface is associated with FGB, FGC or FGD, such signaling, except for two-way calling, which is E&M signaling, will be reverse battery signaling.

(C) Interface Groups 3 through 5

Interface Groups 3 through 5 provide analog transmission at the point of termination at the customer designated premises. The various interfaces are capable of transmitting electrical signals at the frequencies illustrated following, with the capability to channelize voice frequency transmission paths. Certain frequencies within the bandwidth of the Interface Groups are reserved for Telephone Company use, e.g., pilot and carrier group alarm tones. Before the first point of switching, the Telephone Company will provide multiplex equipment to derive the transmission paths of frequency bandwidth of approximately 300 to 3000 Hz.

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.1 Local Transport Interface Groups (Cont'd)

(C) Interface Groups 3 through 5 (Cont'd)

The interfaces are provided with individual transmission path SF supervisory signaling.

<u>Interface Group Identification No.</u>	<u>Transmission Frequency Bandwidth</u>	<u>Analog Hierarchy Level</u>	<u>Maximum No. of Channelized Voice Freq. Trans. Paths</u>
3	60– 108 kHz	Group	12
4	312– 552 kHz	Supergroup	60
5	564–3084 kHz	Mastergroup	600

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.1 Local Transport Interface Groups (Cont'd)

(D) Interface Groups 6 through 10

Interface Groups 6 through 10 provide digital transmission at the point of termination at the customer designated premises. The various interfaces are capable of transmitting electrical signals at the nominal bit rates illustrated following, with the capability to channelize voice frequency transmission paths. Before the first point of switching, when analog switching utilizing analog terminations is provided, the Telephone Company will provide multiplex and channel bank equipment to derive transmission paths of a frequency bandwidth of approximately 300 to 3000 Hz. When digital switching or analog switching with digital carrier terminations is provided, the Telephone Company will provide, a DS1 signal(s) in D3/D4 format.

The interfaces are provided with individual transmission path bit stream supervisory signaling.

<u>Interface Group Identification No.</u>	<u>Nominal Bit Rate (Mbps)</u>	<u>Digital Hierarchy Level</u>	<u>Maximum No. of Channelized Voice Freq. Trans. Paths</u>
6	1.544	DS1	24
7	3.152	DS1C	48
8	6.312	DS2	96
9	44.736	DS3	672
10	274.176	DS4	4032

(E) Local Transport Optional Features

Where transmission facilities permit, the Telephone Company will, at the option of the customer, provide the following features in association with Local Transport. An Access Order Charge as specified in Section 17 following is applicable on a per order basis when nonchargeable optional features are added subsequent to the installation of service (with the exception of the addition of 64 Clear Channel Capability to an existing service).

**ACCESS SERVICE**15. Access Service Interfaces and Transmission Specifications (Cont'd)15.1 Switched Access Service (Cont'd)15.1.1 Local Transport Interface Groups (Cont'd)(E) Local Transport Optional Features (Cont'd)

When the 64 Clear Channel Capability optional feature is installed on an existing facility, the addition will be treated as a discontinuance and start of service and all associated nonrecurring charges will apply.

— Customer Specified Entry Switch Receive Level

Customer Specified Entry Switch Receive Level allows the customer to specify the receive transmission level at the first point of switching. The range of transmission levels, which may be specified is described in Technical Reference GR-334- CORE. This feature is available with Interface Groups 2 through 10 for Feature Groups A and B.

— Customer Specification of Local Transport Termination

Customer Specification of Local Transport Termination allows the customer to specify, for Feature Group B routed directly to an end office or access tandem, a four-wire termination of the Local Transport at the first point of switching in lieu of a Telephone Company selected two-wire termination. This option is available only when the Feature Group B arrangement is provided with Type B Transmission Specifications.

— Supervisory Signaling

Supervisory Signaling allows the customer to order an optional supervisory signaling arrangement for each transmission path provided where the transmission parameters permit, and where signaling conversion is required by the customer to meet its signaling capability.

**ACCESS SERVICE**15. Access Service Interfaces and Transmission Specifications (Cont'd)15.1 Switched Access Service (Cont'd)15.1.1 Local Transport Interface Groups (Cont'd)(E) Local Transport Optional Features (Cont'd)— 64 Clear Channel Capability

64 Clear Channel Capability allows the customer to transport voice or data signals over a 64 Kbps channel with no constraints on the quantity or sequence of ones and zero bits. This option employs the Bipolar 8 Zero Suppression (B8ZS) technique to permit customers to use the full 64 Kpbs bandwidth of a DS0 channel. It is only available in suitably equipped electronic end offices as identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF NO. 4. 64 Clear Channel Capability, as described in Technical Reference GR-334-CORE, is available with Interface Groups 6 and 9 for Feature Groups C and D with Signaling System 7 (SS7) signaling.

The Interface Groups, as described in Sections 15.1.1(A) through 15.1.1(D) preceding, represent industry standard arrangements. Where transmission parameters permit, the customer may select the following optional signaling arrangements in place of the signaling arrangements standardly associated with the Interface Groups.

## — For Interface Groups 1 and 2 associated with FGB, FGC or FGD

DX Supervisory Signaling,  
E&M Type I Supervisory Signaling,  
E&M Type II Supervisory Signaling, or  
E&M Type III Supervisory Signaling

## — For Interface Group 2 associated with FGB, FGC or FGD and in addition to the preceding

SF Supervisory Signaling, or Tandem Supervisory Signaling

## — For Interface Groups 3 through 5

Optional Supervisory Signaling Not Available

— For Interface Groups 6 through 10

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.1 Local Transport Interface Groups (Cont'd)

(E) Local Transport Optional Features (Cont'd)

These Interface Groups may, at the option of the customer, be provided with individual transmission path SF supervisory signaling where such signaling is available in Telephone Company central offices. Generally such signaling is available only where the first point of switching provides an analog (i.e., non-digital) interface to the transport termination.

These optional Supervisory Signaling arrangements not available in combination with the SS7 optional feature as described in Section 6.8.2(C)(2) preceding.

Additionally, in Section 15.1.1(F) following, there is a matrix of available Premises Interface Codes as a function of Interface Group, Telephone Company Switch Supervisory Signaling and Feature Group.

(F) Available Premises Interface Codes

Following is a matrix showing premises interface codes, which are available for each Interface Group. Their availability is a function of the Telephone Company switch supervisory signaling and Feature Group. For explanations of these codes, see the Parameter Codes and Options as set forth in Section 15.2.2(A) following.

<u>Interface Group</u>	<u>Telephone Company Switch Supervisory Signaling</u>	<u>Premises Interface Code</u>	<u>Feature Group</u>			
			<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
1	LO	2LS2	X			
	LO	2LS3	X			
	GO	2GS2	X			
	GO	2GS3	X			
	LO, GO	2DX3	X			
	LO, GO	4EA3-E	X			
	LO, GO	4EA3-M	X			
	LO, GO	6EB3-E	X			
	LO, GO	6EB3-M	X			
	RV, EA, EB, EC	2DX3		X	X	X
	RV, EA, EB, EC	4EA3-E		X	X	X
	RV, EA, EB, EC	4EA3-M		X	X	X
	RV, EA, EB, EC	6EB3-E		X	X	X
	RV, EA, EB, EC	6EB3-M		X	X	X

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15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.1 Local Transport Interface Groups (Cont'd)

(F) Available Premises Interface Codes (Cont'd)

Interface Group	Telephone Company Switch Supervisory Signaling	Premises Interface Code	Feature Group			
			A	B	C	D
1 (Cont'd)	EA, EB, EC	6EC3			X	X
	RV	2RV3-O		X	X	X
	RV	2RV3-T		X	X	X
	SS7	2NO3			X	X
2	LO, GO	4SF2	X			
	LO, GO	4SF3	X			
	LO	4LS2	X			
	LO	4LS3	X			
	LO	6LS3	X			
	GO	4GS2	X			
	GO	4GS3	X			
	GO	6GS2	X			
	LO, GO	4DX2	X			
	LO, GO	4DX3	X			
	LO, GO	6EA2-E	X			
	LO, GO	6EA2-M	X			
	LO, GO	8EB2-E	X			
	LO, GO	8EB2-M	X			
	LO, GO	6EX2-B	X			
	RV, EA, EB, EC	4SF2		X	X	X
	RV, EA, EB, EC	4SF3		X		
	RV, EA, EB, EC	4DX2		X	X	X
	RV, EA, EB, EC	4DX3		X		
	RV, EA, EB, EC	6DX2			X	
	RV, EA, EB, EC	6EA2-E		X	X	X
	RV, EA, EB, EC	6EA2-M		X	X	X
	RV, EA, EB, EC	8EB2-E		X	X	X
	RV, EA, EB, EC	8EB2-M		X	X	X
	EA, EB, EC	8EC2-M			X	X
	RV	4RV2-O		X	X	X
	RV	4RV2-T		X	X	X
	RV	4RV3-O		X	X	X
	RV	4RV3-T		X	X	X
	SS7	4NO2			X	X

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15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.1 Local Transport Interface Groups (Cont'd)

(F) Available Premises Interface Codes (Cont'd)

Interface Group	Telephone Company Switch Supervisory Signaling	Premises Interface Code	Feature Group			
			A	B	C	D
3	LO, GO	4AH5-B	X			
	RV, EA, EB, EC	4AH5-B		X	X	X
	SS7	4AH5-B			X	X
4	LO, GO	4AH6-C	X			
	RV, EA, EB, EC	4AH6-C		X	X	X
	SS7	4AH6-C			X	X
5	LO, GO	4AH6-D	X			
	RV, EA, EB, EC	4AH6-D		X	X	X
	SS7	4AH6-D			X	X
6	LO, GO	4DS9-15	X			
	LO, GO	4DS9-15L	X			
	RV, EA, EB, EC	4DS9-15		X	X	X
	RV, EA, EB, EC	4DS9-15L		X	X	X
	SS7	4DS9-15			X	X
7	LO, GO	4DS9-31	X			
	LO, GO	4DS9-31L	X			
	RV, EA, EB, EC	4DS9-31		X	X	X
	RV, EA, EB, EC	4DS9-31L		X	X	X
	SS7	4DS9-31			X	X
8	LO, GO	4DS0-63	X			
	LO, GO	4DS0-63L	X			
	RV, EA, EB, EC	4DS0-63		X	X	X
	RV, EA, EB, EC	4DS0-63L		X	X	X
	SS7	4DS0-63			X	X
9	LO, GO	4DS6-44	X			
	LO, GO	4DS6-44L	X			
	RV, EA, EB, EC	4DS6-44		X	X	X
	RV, EA, EB, EC	4DS6-44L		X	X	X
	SS7	4DS6-44			X	X

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15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.1 Local Transport Interface Groups (Cont'd)

(F) Available Premises Interface Codes (Cont'd)

Interface Group	Telephone Company Switch Supervisory Signaling	Premises Interface Code	Feature Group			
			A	B	C	D
10	LO, GO	4DS6-27	X			
	LO, GO	4DS6-27L	X			
	RV, EA, EB, EC	4DS6-27		X	X	X
	RV, EA, EB, EC	4DS6-27L		X	X	X
	SS7	4DS6-27			X	X

15.1.2 Standard Transmission Specifications

Descriptions of the transmission specifications available with each Feature Group as a function of the Interface Group selected by the customer are set forth in Sections 15.1.2(A) through 15.1.2(D) following. Descriptions of each of these Standard Transmission Specifications and the two Data Transmission Parameters mentioned are set forth, respectively, in Sections 15.1.2(E) through 15.1.2(G) and Sections 15.1.3(A) and 15.1.3(B) following:

(A) Feature Group A

FGA is provided with either Type B or Type C Transmission Specifications. The specifications for the associated parameters are guaranteed to the first point of switching. Type C Transmission Specifications are provided with Interface Group 1 and Type B is provided with Interface Groups 2 through 10. Type DB Data Transmission Parameters are provided with FGA to the first point of switching.

(B) Feature Group B

FGB is provided with either Type B or Type C Transmission Specifications. The specifications for the associated parameters are guaranteed to the end office when routed directly or to the first point of switching when routed via an access tandem. Type C Transmission Specifications are provided with Interface Group 1 and Type B is provided with Interface Groups 2 through 10. Type DB Data Transmission Parameters are provided with FGB to the first point of switching.

**ACCESS SERVICE**15. Access Service Interfaces and Transmission Specifications (Cont'd)15.1 Switched Access Service (Cont'd)15.1.2 Standard Transmission Specifications (Cont'd)(C) Feature Group C

FGC is provided with either Type B or Type C Transmission Specifications as follows:

- When routed directly to the end office either Type B or Type C is provided.
- When routed to an access tandem only Type B is provided.
- Type B or Type C is provided on the transmission path from the access tandem to the end office.

Type C Transmission Specifications are provided with Interface Group 1 when routed directly to an end office. Type B is provided with Interface Groups 2 through 10, whether routed directly to an end office or to an access tandem.

Type DB Data Transmission Parameters are provided with FGC for the transmission path between the customer designated premises and the end office when directly routed to the end office, and between the customer designated premises and the access tandem and between the access tandem and the end office when routed via an access tandem.

(D) Feature Group D

FGD is provided with either Type A, Type B or Type C Transmission Specifications as follows:

- When routed to the end office either Type B or Type C is provided.
- When routed to an access tandem only Type A is provided.
- Type A is provided on the transmission path from the access tandem to the end office.

Type C Transmission Specifications are provided with Interface Group 1. Type A and Type B Transmission Specifications are provided with Interface Groups 2 through 10.

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**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.2 Standard Transmission Specifications (Cont'd)

(D) Feature Group D (Cont'd)

Type DB Data Transmission Parameters are provided with FGD for the transmission path between the customer designated premises and the end office when directly routed to the end office. Type DA Data Transmission Parameters are provided for the transmission path between the customer designated premises and the access tandem and between the access tandem and the end office when routed via an access tandem.

(E) Type A Transmission Specifications

Type A Transmission Specifications is provided with the following parameters:

(1) Loss Deviation

The maximum Loss Deviation of the 1004 Hz loss relative to the Expected Measured Loss (EML) is  $\pm 2.0$  dB.

(2) Attenuation Distortion

The maximum Attenuation Distortion in the 404 to 2804 Hz frequency band relative to the loss at 1004 Hz is  $-1.0$  dB to  $+3.0$  dB.

(3) C-Message Noise

The maximum C-Message Noise for the transmission path at the route miles listed is less than or equal to:

<u>Route Miles</u>	<u>C-Message Noise</u>
less than 50	32 dB <sub>rn</sub> CO
51 to 100	34 dB <sub>rn</sub> CO
101 to 200	37 dB <sub>rn</sub> CO
201 to 400	40 dB <sub>rn</sub> CO
401 to 1000	42 dB <sub>rn</sub> CO

(4) C-Notch Noise

The maximum C-Notch Noise, utilizing a  $-16$  dB<sub>m</sub>O holding tone, is less than or equal to 45 dB<sub>rn</sub>CO.

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.2 Standard Transmission Specifications (Cont'd)

(E) Type A Transmission Specifications (Cont'd)

(5) Echo Control

Echo Control, identified as Equal Level Echo Path Loss, and expressed as Echo Return Loss and Singing Return Loss, is dependent on the routing, i.e., whether the service is routed directly from the customer's point of termination (POT) to the end office or via an access tandem. It is equal to or greater than the following:

	<u>Echo Return Loss</u>	<u>Singing Return Loss</u>
POT to Access Tandem	21 dB	14 dB
POT to End Office		
— Direct	N/A	N/A
— Via Access Tandem	16 dB	11 dB

(6) Standard Return Loss

Standard Return Loss expressed as Echo Return Loss and Singing Return Loss on two-wire ports of a four-wire point of termination shall be equal to or greater than:

<u>Echo Return Loss</u>	<u>Singing Return Loss</u>
5 dB	2.5 dB

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.2 Standard Transmission Specifications (Cont'd)

(F) Type B Transmission Specifications

Type B Transmission Specifications are provided with the following parameters:

(1) Loss Deviation

The maximum Loss Deviation of the 1004 Hz loss relative to the Expected Measured Loss (EML) is  $\pm 2.5$  dB.

(2) Attenuation Distortion

The maximum Attenuation Distortion in the 404 to 2804 Hz frequency band relative to loss at 1004 Hz is  $-2.0$  dB to  $+4.0$  dB.

(3) C-Message Noise

The maximum C-Message Noise for the transmission path at the route miles listed is less than or equal to:

<u>Route Miles</u>	<u>C-Message Noise*</u>	
	<u>Type B1</u>	<u>Type B2</u>
less than 50	32 dBmCO	35 dBmCO
51 to 100	33 dBmCO	37 dBmCO
101 to 200	35 dBmCO	40 dBmCO
201 to 400	37 dBmCO	43 dBmCO
401 to 1000	39 dBmCO	45 dBmCO

(4) C-Notch Noise

The maximum C-Notch Noise, utilizing a  $-16$  dBm0 holding tone is less than or equal to 47 dBmCO.

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\* For Feature Groups C and D only Type B2 will be provided. For Feature Groups A and B, Type B1 or B2 will be provided as set forth in Technical Reference GR-334-CORE.

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.2 Standard Transmission Specifications (Cont'd)

(F) Type B Transmission Specifications (Cont'd)

(5) Echo Control

Echo Control, identified as Impedance Balance for FGA and FGB and Equal Level Echo Path Loss for FGC and FGD, and expressed as Echo Return Loss (ERL) and Singing Return Loss (SRL), is dependent on the routing, i.e., whether the service is routed directly from the customer's point of termination (POT) to the end office or via an access tandem. The ERL and SRL also differ by Feature Group, type of termination, and type of transmission path. They are greater than or equal to the following:

	<u>Echo Return Loss</u>	<u>Singing Return Loss</u>
POT to Access Tandem		
— Terminated in 4-Wire trunk	21 dB	14 dB
— Terminated in 2-Wire trunk	16 dB	11 dB
POT to End Office		
— Direct	16 dB	11 dB
— Via Access Tandem		
— For FGB access	8 dB	4 dB
— For FGC access (Effective 4-Wire transmission path at end office)	16 dB	11 dB
— For FGC access (Effective 2-Wire transmission path at end office)	13 dB	6 dB

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.2 Standard Transmission Specifications (Cont'd)

(F) Type B Transmission Specifications (Cont'd)

(6) Standard Return Loss

Standard Return Loss, expressed as Echo Return Loss and Singing Return Loss, on two-wire ports of a four-wire point of termination shall be equal to or greater than:

Echo Return Loss

Singing Return Loss

5 dB

2.5 dB

(G) Type C Transmission Specifications

Type C Transmission Specifications are provided with the following parameters:

(1) Loss Deviation

The maximum Loss Deviation of the 1004 Hz loss relative to the Expected Measured Loss (EML) is  $\pm 3.0$  dB.

(2) Attenuation Distortion

The maximum Attenuation Distortion in the 404 to 2804 Hz frequency band relative to loss at 1004 Hz is  $-2.0$  dB to  $+5.5$  dB.

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.2 Standard Transmission Specifications (Cont'd)

(G) Type C Transmission Specifications (Cont'd)

(3) C-Message Noise

The maximum C-Message Noise for the transmission path at the route miles listed is less than or equal to:

<u>Route Miles</u>	<u>C-Message Noise*</u>	
	<u>Type C1</u>	<u>Type C2</u>
less than 50	32 dBrnCO	38 dBrnCO
51 to 100	33 dBrnCO	39 dBrnCO
101 to 200	35 dBrnCO	41 dBrnCO
201 to 400	37 dBrnCO	43 dBrnCO
401 to 1000	39 dBrnCO	45 dBrnCO

(4) C-Notch Noise

The maximum C-Notch Noise, utilizing a -16 dBm0 holding tone is less than or equal to 47 dBrnCO.

(5) Echo Control

Echo Control, identified as Return Loss and expressed as Echo Return Loss and Singing Return Loss is dependent on the routing, i.e., whether the service is routed directly from the customer's point of termination (POT) to the end office or via an access tandem. It is equal to or greater than the following:

	<u>Echo Return Loss</u>	<u>Singing Return Loss</u>
POT to Access Tandem	13 dB	6 dB
POT to End Office		
— Direct	13 dB	6 dB
— Via Access Tandem (for FGB only)	8 dB	4 dB

\* For Feature Groups C and D only Type C2 will be provided. For Feature Groups A and B, Type C1 or C2 will be provided as set forth in Technical Reference GR-334-CORE.

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.3 Data Transmission Parameters

Two types of Data Transmission Parameters, i.e., Type DA and Type DB, are provided for the Feature Group arrangements. Type DB is provided with Feature Groups A, B and C and also with Feature Group D when Feature Group D is directly routed to the end office. Type DA is only provided with Feature Group D and only when routed via an access tandem. Following are descriptions of each.

(A) Data Transmission Parameters Type DA

(1) Signal to C-Notched Noise Ratio

The Signal to C-Notched Noise Ratio is equal to or greater than 33 dB.

(2) Envelope Delay Distortion

The maximum Envelope Delay Distortion for the frequency bands and route miles specified is:

604 to 2804 Hz

less than 50 route miles	500 microseconds
equal to or greater than 50 route miles	900 microseconds

1004 to 2404 Hz

less than 50 route miles	200 microseconds
equal to or greater than 50 route miles	400 microseconds

(3) Impulse Noise Counts

The Impulse Noise Counts exceeding a 65 dB<sub>rnCO</sub> threshold in 15 minutes is no more than 15 counts.

(4) Intermodulation Distortion

The Second Order (R2) and Third Order (R3) Intermodulation Distortion products are equal to or greater than:

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Second Order (R2)	33 dB
Third Order (R3)	37 dB

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.3 Data Transmission Parameters (Cont'd)

(A) Data Transmission Parameters Type DA (Cont'd)

(5) Phase Jitter

The Phase Jitter over the 4-300 Hz frequency band is less than or equal to 5° peak-to-peak.

(6) Frequency Shift

The maximum Frequency Shift does not exceed -2 to +2 Hz.

(B) Data Transmission Parameters Type DB

(1) Signal to C-Notched Noise Ratio

The Signal to C-Notched Noise Ratio is equal to or greater than 30 dB.

(2) Envelope Delay Distortion

The maximum Envelope Delay Distortion for the frequency bands and route miles specified is:

604 to 2804 Hz

less than 50 route miles	800 microseconds
equal to or greater than 50 route miles	1000 microseconds

1004 to 2404 Hz

less than 50 route miles	320 microseconds
equal to or greater than 50 route miles	500 microseconds

(3) Impulse Noise Counts

The Impulse Noise Counts exceeding a 67 dB<sub>rnCO</sub> threshold in 15 minutes is no more than 15 counts.

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.3 Data Transmission Parameters (Cont'd)

(B) Data Transmission Parameters Type DB (Cont'd)

(4) Intermodulation Distortion

The Second Order (R2) and Third Order (R3) Intermodulation Distortion products are equal to or greater than:

Second Order (R2)	31 dB
Third Order (R3)	34 dB

(5) Phase Jitter

The Phase Jitter over the 4-300 Hz frequency band is less than or equal to 7° peak-to-peak.

(6) Frequency Shift

The maximum Frequency Shift does not exceed -2 to +2 Hz.

## ACCESS SERVICE

### 15. Access Service Interfaces and Transmission Specifications (Cont'd)

#### 15.2 Special Access Service

This section explains and lists the codes that the customer must specify when ordering Special Access Service, Switched Access Entrance Facilities, and Voice Grade and High Capacity Direct Trunked Transport. These codes provide a standardized means to relate the services being ordered to Switched Access Service and Special Access Service offerings contained in Sections 6 and 7 preceding.

When ordering, the type of Special Access Service or Switched Access Entrance Facility or Direct Trunked Transport is described by two code sets, the Network Channel (NC) code and the Network Channel Interface (NCI) codes.

The Network Channel (NC) code consists of two elements. Element one is a Channel Service Code (character positions 1 and 2) that describes the channel service type in an abbreviated form. Element two is an Optional Feature Code (character positions 3 and 4) that identifies option codes available for each channel service code, such as C-conditioning or Improved Return Loss.

The Network Channel Interface (NCI) is used to identify interface specifications associated with a particular channel. This code describes the total wires, protocol, impedance, protocol options and transmission level point(s) reflecting physical and electrical characteristics between the Telephone Company and the customer.

On the following 3 pages are examples, which explain the specific characters of the codes and which reference matrices and charts used in developing the codes. Included in the matrices are Service Designator (SD) codes which are used to identify variations of service within service types (e.g., TG1 = Telegraph). The SD and NC codes are displayed as components of the matrices designated as Technical Specifications packages in Sections 15.2(A) through 15.2(G) following. Through the use of these matrices, SD codes may be converted to NC codes for service ordering purposes.

A chart is also provided in Section 15.2.2(A) following which contains information necessary to develop NCI codes.

Comprehensive lists of allowed Network Channel (NC) and Network Channel Interface (NCI) codes are contained in Telcordia Technologies Inc.'s NC/NCI Decoder. However, not all services contained in this Special Report may be offered by the Telephone Company at this time.

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

Lastly, Section 15.2.2(C) following provides a list of compatible Network Channel Interfaces inasmuch as the Network Channel Interfaces associated with a given service need not always be the same, but all must be compatible.

Example No. 1: If the customer wishes to order a 4-wire voice grade circuit with 600 Ohms impedance, capable of data transmission, and with improved return loss, the customer might specify the following:

<u>NC</u>	<u>NCI</u>	<u>SECNCI</u>
LG-R	04DB2	04DA2-S

NC Code:

- LG = Voice Grade Channel Service, VG6
- R = Improved Return Loss

NCI Code:

- 04 = Number of physical wires at CDP
- DB = Data stream in VF frequency band at the customer designated main terminal location
- 2 = 600 Ohms impedance

SECNCI (Secondary NCI Code):

- 04 = Number of physical wires at CDP
- DA = Data stream in VG frequency at the customer designated secondary terminal location
- 2 = 600 Ohms impedance
- S = Sealing current option for 4-wire transmission

In the above example the NCI (Network Channel Interface) code is the interface requested at the customer's POT (Point of Termination) and the SECNCI (Secondary Network Channel Interface) code represents the interface at the end office serving the End User.

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

Example No. 2: If the customer wishes to order a FX circuit to a station, with 600 Ohms impedance, loop start signaling, which is 4-wire at the CDP and 2-wire at the end-user, the customer might specify:

<u>NC</u>	<u>NCI</u>	<u>SECNCI</u>
LC--	04LO2	02LS2

NC Code:

LC = Voice Grade Channel Service, VG2  
-- = No Optional Features

NCI Code:

04 = Number of physical wires at CDP  
LO = Loop start, loop signaling - open end  
2 = 600 Ohms impedance

SECNCI (Secondary NCI Code):

02 = Number of physical wires at CDP  
LS = Loop start signaling - closed end  
2 = 600 Ohms impedance

Example No. 3: If the customer wishes to order a 1.544 Mbps Hi-cap facility with no channel options such as CO multiplexing, the customer might specify the following:

<u>NC</u>	<u>NCI</u>	<u>SECNCI</u>
HC--	04DS9-15	04DS9-15

NC Code:

HC = High Capacity Channel Service, DS1  
-- = No Optional Features

NCI, SECNCI Code:

04 = Number of physical wires at CDP  
DS = Digital hierarchy interface  
9 = 100 Ohms impedance  
15 = 1.544 Mbps (DS1) format

The preceding three examples use information contained in Telcordia Technologies Inc.'s NC/NCI Decoder.

**ACCESS SERVICE**15. Access Service Interfaces and Transmission Specifications (Cont'd)15.2 Special Access Service (Cont'd)15.2.1 Network Channel (NC) Codes

In order to determine the NC code appropriate for the service to be ordered, the type of Special Access Service the customer wishes must be identified. This identification is accomplished by a Service Designator (SD) code. The broad categories of Service Designator codes (e.g., VG, etc.) are set forth in Section 7 preceding. Variations within service type (e.g., VG1, etc.) are described in the various Technical Publications cited in Sections 15.2.1(A) and 15.2.1(B) following.

Having determined the specific service type to be ordered and its SD code, and having used the appropriate Technical Publication, the customer should match the SD code to the NC code using the following matrices. Once the NC code has been determined, the Network Channel Interface (NCI) code may be developed using the information set forth in Section 15.2.2 following and the guidelines concerning specific parameters available for each service type as set forth in the specified Technical Publication.

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.1 Network Channel (NC) Codes (Cont'd)

(A) Technical Specifications Packages Voice Grade Service

SD Code NC Code	Package VG-														
	<u>C*</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>W</u>	
	<u>LQ</u>	<u>LB</u>	<u>LC</u>	<u>LD</u>	<u>LE</u>	<u>LF</u>	<u>LG</u>	<u>LH</u>	<u>LJ</u>	<u>LK</u>	<u>LN</u>	<u>LP</u>	<u>LR</u>	<u>SE</u>	
<u>Parameter</u>															
Attenuation															
Distortion	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
C-Message Noise	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Echo Control	X	X	X	X		X		X	X			X	X	X	
Envelope Delay															
Distortion	X						X	X	X	X	X	X	X	X	
Frequency Shift	X						X	X	X	X	X	X	X	X	
Impulse Noise	X					X	X	X	X	X	X	X	X	X	
Intermodulation															
Distortion	X						X	X	X	X	X	X		X	
Loss Deviation	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Phase Hits, Gain															
Hits, and Dropouts	X														
Phase Jitter	X						X	X	X	X	X	X		X	
Signal-to-C															
Message Noise					X										
Signal-to-C Notch															
Noise	X					X	X	X	X	X	X	X	X	X	

The technical specifications for these parameters (except for dropouts, phase hits, and gain hits) are described in Technical References GR-334-CORE and TR-NWT-000335. The technical specifications for dropouts, phase hits, and gain hits are described in Technical Reference PUB 41004 (MDP-326-584), Table 4.

\* The desired parameters are selected by the customer from the list of available parameters.

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.1 Network Channel (NC) Codes (Cont'd)

(A) Technical Specifications Packages Voice Grade Service (Cont'd)

SD Code NC Code	Package VG-														
	<u>C*</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>W</u>	
	<u>LQ</u>	<u>LB</u>	<u>LC</u>	<u>LD</u>	<u>LE</u>	<u>LF</u>	<u>LG</u>	<u>LH</u>	<u>LJ</u>	<u>LK</u>	<u>LN</u>	<u>LP</u>	<u>LR</u>	<u>SE</u>	
<u>Optional Features and Functions</u>															
Central Office Bridging Capability	X		X			X	X				X	X	X		
Central Office Multiplexing	X						X								
Conditioning:															
• C-Type	X					X	X	X	X	X	X				
• Improved Attenuation Distortion	X					X	X	X	X	X	X				
• Improved Envelope Delay Distortion	X						X	X	X	X	X	X	X	X	
• Sealing Current	X						X	X							
• Data Capability	X						X	X			X				
• Telephoto Capability	X											X			
Customer Specified Premises Receive Level	X		X	X				X	X	X					
Improved Return Loss for Effective Four-Wire Transmission	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
for Effective Two-Wire Transmission	X		X	X				X							
Improved Two-Wire Voice Transmission														X	
PPSN Interface Arrangement	X									X					
Selective Signaling Arrangement	X		X			X	X				X	X	X		
Signaling Capability	X	X	X	X				X	X	X					
Transfer Arrangement	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

\* The desired parameters are selected by the customer from the list of available parameters.

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**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.1 Network Channel (NC) Codes (Cont'd)

(B) Technical Specifications Packages High Capacity Service

SD Code NC Code	Package					
	<u>DS0</u> <u>HS</u>	<u>DS1</u> <u>HC</u>	<u>DS1C</u> <u>HD</u>	<u>DS2</u> <u>HE</u>	<u>DS3</u> <u>HF</u>	<u>DS4</u> <u>HG</u>
<u>Parameters</u>						
Error-Free Seconds		X				
<u>Optional Features and Functions</u>						
Automatic Loop Transfer		X				
Central Office Multiplexing:						
DS4 to DS1						X
DS3 to DS1					X	
DS2 to DS1				X		
DS1C to DS1			X			
DS1 to Voice		X				
DS1 to DS0		X				
DS0 to Subrate*	X					
Transfer Arrangement		X				
Clear Channel Capability		X				

A channel with technical specifications package DS1 will be capable of an error-free second performance of 98.75% over a continuous 24-hour period as measured at the 1.544 Mbps rate through a CSU equivalent, which is designed, manufactured, and maintained to conform with the specifications contained in Technical Reference GR-342-CORE.

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\* Available only on a channel of 1.544 Mbps facility to a Telephone Company Hub.

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes

The electrical interface with the Telephone Company for Special Access Services is defined by an interface code. There are interface codes for both the customer designated premises and the point of termination. Three examples of NCI codes are found in Section 15.2 preceding.

**ACCESS SERVICE**15. Access Service Interfaces and Transmission Specifications (Cont'd)15.2 Special Access Service (Cont'd)15.2.2 Network Channel Interface (NCI) Codes (Cont'd)(A) Parameter Codes and OptionsParameter

<u>Code</u>	<u>Option</u>	<u>Definition</u>
AB	—	accepts 20 Hz ringing signal at customer's point of termination
AC	—	accepts 20 Hz ringing signal at customer's end user's point of termination
AH	—	analog high capacity interface
	— B	60 kHz to 108 kHz (12 channels)
	— C	312 kHz to 552 kHz (60 channels)
	— D	564 kHz to 3084 kHz (600 channels)
CT	—	Centrex Tie Trunk Termination
CS	—	digital hierarchy interface at Digital Cross Connect System (DCS)
	— 15	1.544 Mbps (DS1) ANSI Extended Superframe (ESF) Format and B8ZS Clear Channel Capability
	— 15A	1.544 Mbps (DS1) Superframe (SF) format
	— 15B	1.544 Mbps (DS1) Superframe (SF) format and B8ZS Clear Channel Capability
	— 15K	1.544 Mbps (DS1) Extended Superframe (ESF)
DA	—	data stream in VF frequency band at customer's end user's point of termination
DB	—	data stream in VF frequency band at customer's point of termination
	— 10	VF for TG1 and TG2
	— 43	VF for 43 Telegraph Carrier type signals, TG1 and TG2
DC	—	direct current or voltage
	— 1	monitoring interface with series RC combination (McCulloch format)
	— 2	Telephone Company energized alarm channel
	— 3	Metallic facilities (DC continuity) for direct current/low frequency control signals or slow speed data (30 baud)
DD	—	DATAPHONE Select-A-Station (and TABS) interface at customer's point of termination
DE	—	DATAPHONE Select-A-Station (and TABS) interface at the customer's end user's point of termination

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**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(A) Parameter Codes and Options (Cont'd)

Parameter (Cont'd)

<u>Code</u>	<u>Option</u>	<u>Definition</u>
DS	—	digital hierarchy interface
	— 15	1.544 Mbps (DS1) format per GR-342-CORE plus D4
	— 15E	8-bit PCM encoded in one 64 kbps of the DS1 signal
	— 15F	8-bit PCM encoded in two 64 kbps of the DS1 signal
	— 15G	8-bit PCM encoded in three 64 kbps of the DS1 signal
	— 15H	14/11-bit PCM encoded in six 64 kbps of the DS1 signal
	— 15J	1.544 Mbps format per GR-342-CORE
	— 15K	1.544 Mbps format per GR-342-CORE plus extended framing format
	— 15L	1.544 Mbps (DS1) with SF signaling
	— 27	274.176 Mbps (DS4)
	— 27L	274.176 Mbps (DS4) with SF signaling
	— 31	3.152 Mbps (DS1C)
	— 31L	3.152 Mbps (DS1C) with SF signaling
	— 44	44.736 Mbps (DS3)
	— 44L	44.736 Mbps (DS3) with SF signaling
	— 63	6.312 Mbps (DS2)
	— 63L	6.312 Mbps (DS2) with SF signaling
DU	—	digital access interface
	— 24	2.4 kbps
	— 48	4.8 kbps
	— 19	19.2 kbps
	— 56	56.0 kbps
	— 96	9.6 kbps
	— 64	64.0 kbps
	— A	1.544 Mbps format per GR-342-CORE
	— B	1.544 Mbps format per GR-342-CORE plus D4
	— C	1.544 Mbps format per GR-342-CORE plus extended framing format
	— 1KN	1.544 Mbps ANSI Extended Superframe (ESF) Format without line power
	— 1SN	1.544 Mbps ANSI Extended Superframe (ESF) Format with B8ZS Clear Channel Capability and without line power
	— AN	1.544 Mbps free-framing format without line power (only avail. to U.S. Govt. agencies)
	— BN	1.544 Mbps Superframe (SF) Format without line power
	— DN	1.544 Mbps Superframe (SF) Format with B8ZS Clear Channel Capability without line power

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**ACCESS SERVICE**15. Access Service Interfaces and Transmission Specifications (Cont'd)15.2 Special Access Service (Cont'd)15.2.2 Network Channel Interface (NCI) Codes (Cont'd)(A) Parameter Codes and Options (Cont'd)Parameter (Cont'd)

<u>Code</u>	<u>Option</u>	<u>Definition</u>
DX	—	duplex signaling interface at customer's point of termination
DY	—	duplex signaling interface at customer's end user's point of termination
EA	— E	Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead.
EA	— M	Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead.
EB	— E	Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead.
	— M	Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead.
EC	—	Type III E&M signaling at customer POT
EX	— A	tandem channel unit signaling for loop start or ground start and customer supplies open end (dial tone, etc.) functions.
EX	— B	tandem channel unit signaling for loop start or ground start and customer supplies closed end (dial pulsing, etc.) functions.
FC	—	Fiber Optic Interface
	— B	OC3, OC3c
	— D	OC12
GO	—	ground start loop signaling - open end function by customer or customer's end user
GS	—	ground start loop signaling - closed end function by customer or customer's end user
IA	—	E.I.A. (25 pin RS-232)
LA	—	end user loop start loop signaling — Type A OPS registered port open end
LB	—	end user loop start loop signaling — Type B OPS registered port open end
LC	—	end user loop start loop signaling — Type C OPS registered port open end
LO	—	loop start loop signaling — open end function by customer or customer's end user
LR	—	20 Hz automatic ringdown interface at customer with Telephone Company provided PLAR
LS	—	loop start loop signaling — closed end function by customer or customer's end user

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15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(A) Parameter Codes and Options (Cont'd)

Parameter (Cont'd)

<u>Code</u>	<u>Option</u>	<u>Definition</u>
NO	—	no signaling interface, transmission only
PG	—	program transmission - no dc signaling
	— 1	nominal frequency from 50 to 15000 Hz
	— 3	nominal frequency from 200 to 3500 Hz
	— 5	nominal frequency from 100 to 5000 Hz
	— 8	nominal frequency from 50 to 8000 Hz
PR	—	protective relaying*
RV	— 0	reverse battery signaling, one way operation, originate by customer
	— T	reverse battery signaling, one way operation, terminate function by customer or customer's end user
SF	—	single frequency signaling with VF band at either customer POT or customer's end user POT
SO	—	SONET Optical
	— AB	Long Range Multilongitudinal Mode (LR1-MLM) Bidirectional Ring
	— AU	LR1-MLM Unidirectional Ring
	— BB	Long Range Single Longitudinal Mode (LR1-SLM) Bidirectional Ring
	— BU	LR1-SLM Unidirectional Ring
	— CB	Intermediate Range Multilongitudinal Mode (IR1-MLM) Bidirectional Ring
	— CU	IR1-MLM Unidirectional Ring
	— DB	Intermediate Range Single Longitudinal Mode (IR1-SLM) Bidirectional Ring
	— DU	IR1-SLM Unidirectional Ring
	— EB	Short Range Multilongitudinal Mode Light Emitting Diode (SR-MLM/LED) Bidirectional Ring
	— EU	SR-MLM/LED Unidirectional Ring
	— FB	Short Range Multilongitudinal Mode (SR-MLM) Bidirectional Ring
	— FU	SR-MLM Unidirectional Ring

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\* Available only for the transmission of audio tone protective relaying signals used in the protection of electric power systems during fault conditions.

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(A) Parameter Codes and Options (Cont'd)

Parameter (Cont'd)

<u>Code</u>	<u>Option</u>	<u>Definition</u>
ST	—	Synchronous Transmission Signal (STS)
	— A	STS1
TF	—	telephotograph interface
TT	—	telegraph/teletypewriter interface at either customer POT or customer's end user POT
	— 2	20.0 milliamperes
	— 3	3.0 milliamperes
	— 6	62.5 milliamperes
TV	—	television interface
	— 1	combined (diplexed) video and one audio signal
	— 2	combined (diplexed) video and two audio signals
	— 5	video plus one (or two) audio 5 kHz signal(s) or one (or two) two wire
	— 15	video plus one (or two) audio 15 kHz signal(s)

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(B) Impedance

The nominal reference impedance with which the channel will be terminated for the purpose of evaluating transmission performance:

<u>Value (ohms)</u>	<u>Code(s)</u>
110	0
150	1
600	2
900	3*
135	5
75	6
124	7
Variable	8
100	9
Fiber	F
Radio	R

---

\* For those interface codes with a 4-wire transmission path at the customer designated POT, rather than a standard 900-ohm impedance the code (3) denotes a customer provided transmission equipment termination. Such terminations were provided to customers in accordance with the F.C.C. Docket No. 20099 Settlement Agreement.

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces

(1) Voice Grade

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
2AB2	2AC2	2DB2	2DA2	2LR2	2LR2
2AB3	2AC2	2DB3	2DA2	2LR3	2LR2
2CT3	2DY2	2DX3	2LA2	2LS	2GS
	4DS8		2LB2		2LS
	4DX2		2LC2		4GS
	4DX3		2LO3		4LS
	4DY2		2LS2		
	4EA2-E		2LS3	2LS2	2LA2
	4EA2-M				2LB2
	4SF2	2GO2	2GS2		2LC2
	4SF3		2GS3		
	6DX2			2LS3	2LA2
	6DY2	2GO3	2GS2		2LB2
	6DY3		2GS3		2LC2
	6EA2-E				
	6EA2-M	2GS	2GS	2NO2	2DA2
	6EB2-E		2LS		2NO2
	6EB2-M		4GS		
	6EB3-E		4LS	2NO3	2NO2
	8EB2-E				2PR2
	8EB2-M	2L02	2LS2		
	8EC2		2LS3	2TF3	2TF2
	9DY2				
	9DY3	2L03	2LS2		
	9EA2		2LS3		
	9EA3				

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(1) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4AB2	2AC2 4AB2 4AC2 4SF2				
4AB3	2AC2 4AC2 4SF2				
4AC2	2AC2 4AC2				
		4DS8-	2AC2 2DA2 2DY2 2GO2 2GO3	4DS8-	4DG2 4LR2 4LS2 4NO2 4PR2
4DA2	4DA2			2GS2	4RV2-T
4DB2	2DA2 2NO2 2PR2 4DA2 4DB2 4NO2 4PR2 6DA2		2GS3 2LA2 2LB2 2LC2 2LO2 2LO3 2LR2 2LS2 2LS3		4SF2 4SF3 4TF2 6DA2 6DY2 6DY3 6EA2-E 6EA2-M 6EB2-E 6EB2-M
4DD3	2DE2 4DE2		2NO2 2PR2 2RV2-T 2TF2 4AC2 4DA2 4DE2 4DX2 4DX3		6GS2 6LS2 8EB2-E 8EB2-M 9DY2 9DY3 9EA2 9EA3
			4DY2 4EA2-E 4EA2-M		

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**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(1) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4DX2	2DY2	4DX2	8EB2-E	4DX3	6DY2
	2LA2		8EB2-M		6DY3
	2LB2		9DY2		6EA2-
E			9DY3		6EA2-
M	2LC2		9EA2		6EB2-
E	2LO3		9EA3		6EB2-
M	2LS2				6LS2
	2LS3	4DX3	2DY2		8EB2-
E	2RV2-T		2LA2		8EB2-
M	4DX2		2LB2		9DY2
	4DY2		2LC2		9DY3
	4EA2-E		2LO3		9EA2
	4EA2-M		2LS2		9EA3
	4LS2		2LS3		
	4RV2-T		2RV2-T	4DY2	2DY2
	4SF2		4DX2		4DY2
	4SF3		4DX3		
	6DY2		4DY2		
	6DY3		4EA2-E		
	6EA2-E		4EA2-M		
	6EA2-M		4LS2		
	6EB2-E		4RV2-T		
	6EB2-M		4SF2		
	6LS2		4SF3		

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(1) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4EA2-E	2DY2	4EA3-E	2DY2	4GO2	2GO2
	4DY2		4DY2		2GO3
	4EA2-E		4EA2-E		2GS2
	4EA2-M		4EA2-M		2GS3
	4SF2		4SF2		4GS2
	6DY2		6DY2		4SF2
	6DY3		6DY3		6GS2
	6EB2-E		6EA2-E		
	6EB2-M		6EA2-M	4GO3	2GO2
	8EB2-E		6EB2-E		2GS2
	8EB2-M		6EB2-M		2GS3
	9DY2		8EB2-E		4GS2
	9DY3		8EB2-M		4SF2
	9DY2		6GS2		
4EA2-M	2DY2		9DY3		
	4DY2		9EA2		
	4EA2-M		9EA3	4GS	2GS
	4SF2				2LS
	6DY2				4GS
	6DY3				4LS
	6EB2-E				
	6EB2-M				
	8EB2-E				
	8EB2-M				
	9DY2				
	9DY3				

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(1) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4LO2	2LS2	4LS3	2LA2	4SF2	2LO3
	2LS3		2LB2		2LR2
	4LS2		2LC2		2LS2
	4SF2		2LO2		2LS3
	6LS2		2LO3		2RV2-T
			4SF2		4AC2
4LO3	2LS2				4DY2
	2LS3	4NO2	2DA2		4LS2
	4LS2		2DE2		4RV2-T
	4SF2		2NO2		4SF2
	6LS2		4DA2		6DY2
			4DE2		6DY3
4LR2	2LR2		4NO2		6GS2
	4LR2		6DA2		9DY2
	4SF2				9DY3
		4RV2-0	2RV2-T		
4LR3	2LR2		4RV2-T	4SF3	2DY2
	4LR2		4SF2		2GO3
	4SF2				2GS2
					2GS3
4LS	2GS	4SF2	2AC2		2LA2
	2LS		2DY2		2LB2
	4GS		2GS2		2LC2
	4LS		2GS3		2LO3
			2LA2		2LR2
4LS2	2LA2		2LB2		
	2LB2		2LC2		
	2LC2				
	2LO2				
	2LO3				

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(1) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4SF3	2LS2	6DA	4DA2	6DY3	2DY2
	2LS3		6DA2		4DY2
	2RV2-T				6DY2
	4DY2	6DX2	2DY2		6DY3
	4EA2-E		4DY2		
	4EA2-M		4EA2-E	6EA2-E	2AC2
	4GS2				
	4LR2		4EA2-M		2DY2
	4LS2		4SF2		2LA2
	4RV2-T		6DY2		2LB2
	4SF2		6DY3		2LC2
	4SF3		6EA2-E		2LO3
	6DY2		6EA2-M		2LS2
	6DY3		6EB2-E		2LS3
	6EB2-E		6EB2-M		2RV2-T
	6EB2-M		8EB2-E		4AC2
	6GS2		8EB2-M		4DY2
	6LS2		9DY2		4EA2-E
	9DY2		9DY3		4EA2-M
	9DY3		9EA2		4LS2
	9EA2		9EA3		4RV2-T
	9EA3				4SF2
		6DY2	2DY2		4SF3
4TF2	2TF2		4DY2		6DY2
	4TF2		6DY2		6DY3
					6EA2-E
					6EA2-M

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(1) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
6EA2-E	6EB2-E	6EA2-M	6DY2	6EB3-E	2DY2
	6EB2-M		6DY3		4DY2
	6LS2		6EA2-M		4EA2-E
	8EB2-E		6EB2-E		4EA2-M
	8EB2-M		6EB2-M		4SF2
	9DY2		6LS2		6DY2
	9DY3		8EB2-E		6DY3
			8EB2-M		6EA2-E
6EA2-M	2AC2		9DY2		6EA2-M
	2DY2		9DY3		8EB2-E
	2LA2				8EB2-M
	2LB2	6EB2-E	2DY2		9DY2
	2LC2		4DY2		9DY3
	2LO3		4SF2		9EA2
	2LS2		6DY2		9EA3
	2LS3		6DY3		
	2RV2-T		6EB2-E	6EX2-A	2GS2
	4AC2		6EB2-M		2GS3
	4DY2		9DY2		2LS2
	4EA2-E		9DY3		2LS3
	4EA2-M				4GS2
	4LS2	6EB2-M	2DY2		4LS2
	4RV2-T		4DY2		4SF2
	4SF2		4SF2		6GS2
	4SF3		6DY2		6LS2
			6DY3		
			6EB2-M		
			9DY2		
			9DY3		

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(1) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
6EX2-B	2GO3	8EB2-E	2AC2	8EB2-M	2AC2
	2LA2		2DY2		2DY2
	2LB2		2LA2		2LA2
	2LC2		2LB2		2LB2
	2LO2		2LC2		2LC2
	2LO3		2LO3		2LO3
	2LR2		2LS2		2LS2
	4LR2		2LS3		2LS3
	4SF2		2RV2-T		2RV2-T
			4AC2		4AC2
6GO2	2GO2	4RV2-T	4DY2	4RV2-T	4DY2
	2GS2		4LS2		4LS2
	2GS3		4SF2		4SF2
	4GS2		4SF3		4SF3
	4SF2		6DY2		6DY2
	6GS2		6DY3		6DY3
			6EB2-E		6EB2-E
6LO2	2LS2	8EB2-M	6EB2-M	8EB2-M	6EB2-M
	2LS3		6LS2		6LS2
	4LS2		8EB2-E		8EB2-M
	4SF2		8EB2-M		9DY2
	6LS2		9DY2		9DY3
6LS2	2LA2	9DY3	9DY3		
	2LB2				
	2LC2				
	2LO2				
	2LO3				
	4SF2				

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(1) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
8EC2	2DY2	9DY2	2DY2	9EA3	2DY2
	4DY2		4DY2		4DY2
	4EA2-E		6DY2		4EA2-E
	4EA2-M		6DY3		4EA2-M
	4SF2		9DY2		6DY2
	6DY2				6DY3
	6DY3	9DY3	2DY2		6EA2-E
	6EA2-E		4DY2		6EA2-M
	6EA2-M		6DY2		6EB2-E
	6EB2-E		6DY3		6EB2-M
	6EB2-M		9DY2		8EB2-E
	8EB2-E		9DY3		8EB2-M
	8EB2-M				9DY2
	9DY2	9EA2	2DY2		9DY3
	9DY3		4DY2		9EA3
	9EA2		4EA2-E		
	9EA3		4EA2-M		
			6DY2		
			6DY3		
			6EA2-E		
			6EA2-M		
			6EB2-E		
			6EB2-M		
			8EB2-E		
			8EB2-M		
			9DY2		
			9DY3		
			9EA2		
			9EA3		

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(2) High Capacity

<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4DS0-63	4DS0-63 4DU8-A,B or C 6DU8-A,B or C	4DS8-15J	4DU8-A 6DU8-A
4DS6-27	4DS6-27 4DU8-A,B or C 6DU8-A,B or C	4DS8-15K	4DU8-B 4DU8-C 6DU8-B 6DU8-C
4DS6-44	4DS6-44 4DU8-A,B or C 6DU8-A,B or C	4DS8-31	4DS8-31 4DU8-A,B or C 6DU8-A,B or C
4DS8-15	4DS8-15* 4DU8-B 6DU8-8	4DU8-A,B or C	4DU8-A,B or C

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\* Available only as a cross connect of two individual channels of 1.544 Mbps facilities at a Telephone Company hub.

**ACCESS SERVICE**15. Access Service Interfaces and Transmission Specifications (Cont'd)15.3 Directory Access Service15.3.1 Interface Group and Premise Interface Codes

When Directory Access Service is combined with Feature Group B, C or D Switched Access Service, the Premises Interface Code for the combination will be the available Premises Interface Code provided for the Feature Group B, C or D Switched Access Service ordered by the customer. Premises Interface Codes are described in Section 15.1.1(G) preceding.

When Directory Access Service is provided as a separate trunk group (not in combination with Switched Access Service) Interface Groups 2 through 10 as set forth in Section 15.1.1 preceding are available. Only the following Premises Interface Codes are available when Directory Access Service is provided as a separate trunk group:

4DS9-15	6EA2-E	4RV2-0
4DS9-31	6EA2-M	4AH5-B
4DS0-63	4SF3	4AH6-C
4DS6-44		4AH6-D
4DS6-27		

**ACCESS SERVICE**

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.3 Directory Access Service

15.3.2 Standard Transmission Specifications

Following is a matrix illustrating the transmission specifications available with Directory Access Service. Descriptions of the Standard Transmission Specifications, Type A and B, are set forth, respectively, in Sections 15.1.2(E) and 15.1.2(F) preceding.

	<u>Transmission Specifications</u>	
	<u>Type A</u>	<u>Type B</u>
<u>Directory Access Service Provided in Combination with Switched Access Service</u>		
— Feature Group B (Interface Groups 2 through 10)		X
— Feature Group C		X
— Feature Group D	X	
<u>Directory Access Service Not Combined with Switched Access Service</u>		
— Routed Direct to DA location (Interface Groups 2 through 10)		X
— Routed via an access tandem (Interface Groups 2 through 10)	X	

## ACCESS SERVICE

### 16. Public Packet Data Network

Public Packet Data Networks utilize separate data networks, comprised of switching and transmission facilities. The networks provide for the transfer of data provided by a customer in a frame format. The data is separated into discrete segments for transmission through the public packet data network.

#### 16.1 Frame Relay Access Service

##### 16.1.1 General

###### (A) General

Frame Relay Access Service (FRAS) is a medium-speed, connection-oriented packet-switched data service that allows for the interconnection of Local Area Networks (LANs) or other compatible customer premises equipment for the purpose of connecting to an interstate frame relay network. FRAS also allows for the interconnection of a customer designated premises to a DSL Access Service Connection Point as described in Section 8, preceding. The terminal equipment accumulates the customer data and puts it into a frame relay format suitable for transmission over the FRAS network. This terminal equipment must conform to American National Standards Institute and Telecommunication Standardization Bureau of the International Telecommunication Union (ITU-T), formerly Committee Consultant de International Telegraphique et Telephonique (CCITT), standards.

FRAS permits customers to share network bandwidth for data transmissions. Rates and charges for FRAS are set forth in Section 17 following. The application of rates for FRAS is described in Section 16.1.2 following. In addition to the regulations and charges specified in this section, the general regulations and charges specified in other sections of this tariff apply as appropriate.

###### (B) Service Description

FRAS is a transport service that facilitates the exchange of variable length information units (frames) between customer connections. Frames travel a fixed path through the network with an address that specifies the permanent virtual connection. Addresses are read by the network processor and the frames are relayed to the preassigned destination.

FRAS service includes: the Frame Relay Access Connection, the Frame Relay Inter-network Connection, and Permanent Virtual Connections (PVC), which have associated Committed Information Rates (CIRs).

**ACCESS SERVICE**16. Public Packet Data Network (Cont'd)16.1 Frame Relay Access Service (Cont'd)16.1.1 General (Cont'd)(B) Service Description (Cont'd)

The Frame Relay Access Connection and the Frame Relay Inter-network Connection elements provide access to a Telephone Company wire center equipped with a frame relay switch. A generic view of FRAS access is shown in Section 16.1.2(A) following. Frame Relay Access Service connections are available from the wire centers as identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4.

The Frame Relay Access Connection combines a frame relay compatible 56.0 kbps, 64.0 kbps, 1.544 Mbps or 44.736 Mbps digital transport facility with a port on a frame relay switch. The Frame Relay Access Connection includes the Telephone Company facility between the customer designated premises and the customer's serving wire center, the interoffice transport (if applicable) between the customer's serving wire center and a wire center equipped with a frame relay switch, and the end user port. The end user port is a user-to-network interface, which provides the lineside physical entry point into the Telephone Company frame relay network and permits FRAS compatible end user customer premises equipment (CPE) to originate or terminate an interstate access service. Connections between end user customer premises equipment and the Telephone Company frame relay switch are available at speeds of 56.0 kbps, 64.0 kbps, 1.544 Mbps or 44.736 Mbps. Each end user port requires the identification of a corresponding terminating port. All end user ports must be in conformance with American National Standards Institute (ANSI) standards T1.606-1990, T1.606 Addendum 1-1991, T1.606a-1992, T1.617, Annex D-1992.

**ACCESS SERVICE**16. Public Packet Data Network (Cont'd)16.1 Frame Relay Access Service (Cont'd)16.1.1 General (Cont'd)(B) Service Description (Cont'd)

The Frame Relay Inter-network Connection combines a frame relay compatible 1.544 Mbps or 44.736 Mbps digital transport facility with a port on a frame relay switch. The Frame Relay Inter-network Connection includes the Telephone Company facility between the customer-designated premises and the customer's serving wire center, the interoffice transport (if applicable) between the customer's serving wire center and a wire center equipped with a frame relay switch, and the inter-network customer port. The inter-network customer port is a network-to-network interface, which provides the trunkside physical entry point into the Telephone Company frame relay network. The inter-network customer port connects the Telephone Company frame relay switch and the access customer's network. The inter-network customer port is offered at speeds of 1.544 Mbps or 44.736 Mbps. All inter-network customer ports must be in conformance with Telcordia Technologies, Inc. Technical Reference TR-TSV-001370, Issued: May 1993.

The Telephone Company will provide the logical circuits required within its frame relay network to connect the ports or to connect a port with a DSL Access Service Connection Point. These logical circuits, or Permanent Virtual Connections (PVC), are software defined, end-to-end, bi-directional communications paths that are established and disestablished via the access service order process. While no physical circuits are dedicated, the two network addresses (one from each port) are connected electronically to form a PVC.

There are two types of PVCs available. The standard PVC establishes a communications path between two ports or between a port and a DSL Access Service Connection Point within the same Telephone Company frame relay network. The extended PVC establishes a communications path between two ports or between a port and a DSL Access Service Connection Point on two interconnected Telephone Company frame relay networks. A generic view of interconnected FRAS is shown in Section 16.1.2(A) following.

At the time service is ordered the number of PVCs will be identified along with their Committed Information Rates. CIR is the bit rate at which the FRAS network commits to transfer data. Committed Information Rates provide for ~~frame relay switch throughput at designated speeds [see Section 16.1.2(A)(3) following]~~. This information is required for network routing purposes.

Issued: March 28, 2002

Effective: March 29, 2002

**ACCESS SERVICE**16. Public Packet Data Network (Cont'd)16.1 Frame Relay Access Service (Cont'd)16.1.1 General (Cont'd)(C) Service Provided by More than One Telephone Company

When the transport facility between the customer-designated premises and a wire center equipped with a frame relay switch is provided by more than one Telephone Company, the Telephone Companies involved will provide a Special Access Service facility as set forth in Section 7 preceding, and in accordance with Sections 2.4.7 and 5.3 preceding.

Jointly-Provided FRAS service includes: the End User Port, the Inter-network Customer Port, and Permanent Virtual Connections (PVC) which have associated Committed Information Rates (CIRs). A Special Access Service facility is used to connect to the frame relay switch.

Connections are provided via Channel Termination(s) and Channel Mileage (*see* Section 7 Special Access Digital Data and High Capacity Services preceding). All regulations, rates and charges as specified in Section 7 will apply in addition to the rates and charges associated with FRAS. A generic view of jointly-provided FRAS is shown in Section 16.1.2(A) following.

The Telephone Company that provides the frame relay switch will bill an End User Port charge for the end user port connection and/or an Inter-network Customer Port charge for the inter-network customer port connection.

The Special Access Service, End User Port and/or Inter-network Customer Port charge(s) will apply in lieu of the Frame Relay Access Connection or Frame Relay Inter-network Connection.

(D) Ordering Options and Conditions

Frame Relay Access Service is ordered under the Access Order provisions set forth in Section 5 preceding. Also included in that section are other charges, which may be associated with ordering FRAS (e.g., Service Date Change Charges, Cancellation Charges, etc.)

A minimum of two FRAS connections are required for data to be transported between customer designated premises.

**ACCESS SERVICE**

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.1 General (Cont'd)

(E) Acceptance Testing

At no additional charge, the Telephone Company will, at the customer's request, cooperatively test at the time of installation.

16.1.2 Rate Regulations

This section contains the specific regulations governing the rates and charges that apply for Frame Relay Access Service.

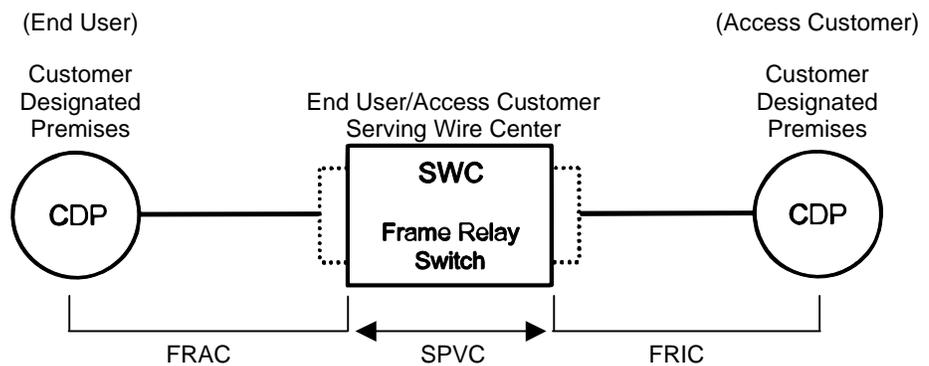
Frame Relay Access Service is available at the wire centers as identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4. In the case of Interconnected Frame Relay Access Service, NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4 also identifies the intermediate and super intermediate wire centers.

(A) Rate Categories

The following diagrams depict a generic view of the components of Frame Relay Access Service and the manner in which the components are combined to provide FRAS, Interconnected FRAS, and Jointly-Provided FRAS.

**Frame Relay Access Service**

**Customer's Serving Wire Center is equipped with a frame relay switch**



**RATE ELEMENTS**

- FRAC = Frame Relay Access Connection
- SPVC = Standard Permanent Virtual Connection
- FRIC = Frame Relay Inter-network Connection

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**ACCESS SERVICE**

16. Public Packet Data Network (Cont'd)

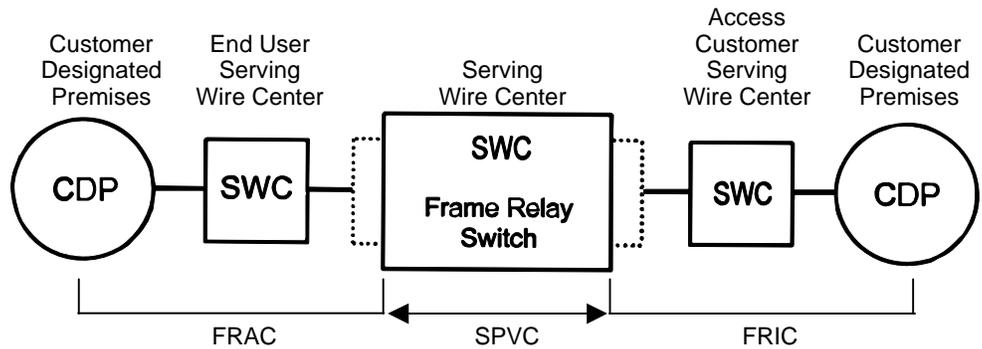
16.1 Frame Relay Access Service (Cont'd)

16.1.2 Rate Regulations (Cont'd)

(A) Rate Categories (Cont'd)

**Frame Relay Access Service**

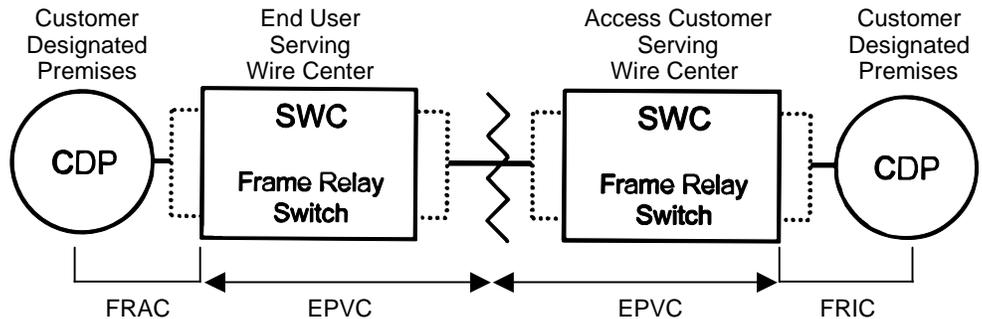
**Customer's Serving Wire Center is not equipped with a frame relay switch**



**Interconnected Frame Relay Access Service**

**EC A \***

**EC B \***



**RATE ELEMENTS**

- FRAC = Frame Relay Access Connection
- SPVC = Standard Permanent Virtual Connection
- FRIC = Frame Relay Inter-network Connection

\* If EC A or EC B is a non-NECA company, the application of their charges will depend upon EC A or EC B's access tariff.

**ACCESS SERVICE**

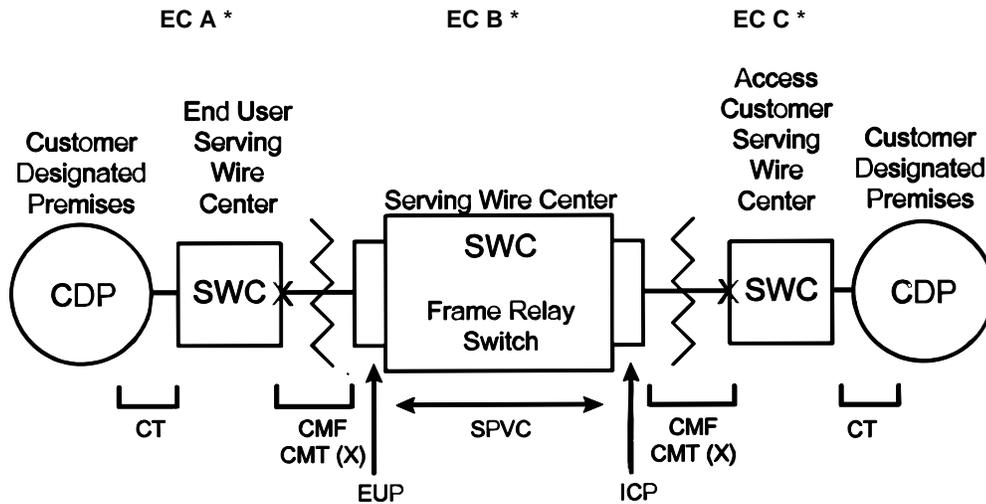
16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.2 Rate Regulations (Cont'd)

(A) Rate Categories (Cont'd)

**Jointly-Provided Frame Relay Access Service**



**RATE ELEMENTS**

- |               | (Special Access Service)  | (Frame Relay Access Service)   |
|---------------|---|--|
| <b>EC "A"</b> | <ul style="list-style-type: none"> <li>• CT = Channel Termination</li> <li>• CMT = Channel Mileage Termination</li> <li>• CMF = Channel Mileage Facility</li> </ul> |  |
| <b>EC "B"</b> | <ul style="list-style-type: none"> <li>• CMF = Channel Mileage Facility</li> <li>• CMF = Channel Mileage Facility</li> </ul>  | <ul style="list-style-type: none"> <li>• EUP = End User Port</li> <li>• SPVC = Standard Permanent Virtual Connection</li> <li>• ICP = Inter-network Customer Port</li> </ul> |
| <b>EC "C"</b> | <ul style="list-style-type: none"> <li>• CT = Channel Termination</li> <li>• CMT = Channel Mileage Termination</li> <li>• CMF = Channel Mileage Facility</li> </ul> |  |

\* If EC A, EC B or EC C is a non-NECA company, the application of their charges will depend upon EC A, EC B or EC C's access tariff.

**ACCESS SERVICE**16. Public Packet Data Network (Cont'd)16.1 Frame Relay Access Service (Cont'd)16.1.2 Rate Regulations (Cont'd)(A) Rate Categories (Cont'd)(1) Frame Relay Access Connection

The Frame Relay Access Connection (FRAC) rate element recovers the costs associated with the communication path between the end user's premises and the Telephone Company wire center equipped with a frame relay switch. The FRAC includes the physical transmission facility between the customer designated premises and the customer's serving wire center, the interoffice transport (if applicable) between the customer's serving wire center and a wire center equipped with a frame relay switch, and the end user port on the Telephone Company's frame relay switch.

One FRAC charge applies per customer-designated premises at which the FRAS connection is terminated. This applies even if the customer designated premises and the frame relay switch are collocated in a Telephone Company building.

(2) Frame Relay Inter-network Connection

The Frame Relay Inter-network Connection (FRIC) rate element recovers the costs associated with the communication path between the access customer's premises and the Telephone Company wire center equipped with a frame relay switch. The FRIC includes the physical transmission facility between the customer designated premises and the customer's serving wire center, the interoffice transport (if applicable) between the customer's serving wire center and a wire center equipped with a frame relay switch, and the inter-network customer port on the Telephone Company's frame relay switch.

One FRIC charge applies per customer-designated premises at which the FRAS connection is terminated. This applies even if the customer designated premises and the frame relay switch are collocated in a Telephone Company building.

**ACCESS SERVICE**16. Public Packet Data Network (Cont'd)16.1 Frame Relay Access Service (Cont'd)16.1.2 Rate Regulations (Cont'd)(A) Rate Categories (Cont'd)(3) End User Port

An End User Port charge is applied as a discrete rate element in conjunction with jointly provided Special Access Service. Refer to Sections 7.9 and 7.10 preceding for additional applicable rates and charges. The End User Port is the physical location in the Telephone Company switching office where the transport facility of the customer connects to the FRAS Network. It specifies how a frame relay switch sends and receives data from a frame relay end user customer's LAN or other compatible CPE devices.

The End User Port consists of either a 56.0 kbps, 64.0 kbps, 1.544 Mbps or 44.736 Mbps interface. The port connecting the transport facility to the Telephone Company frame relay switch must be ordered and provided at the same speed as the associated transport facility.

(4) Inter-network Customer Port

An Inter-network Customer Port Charge is applied as a discrete rate element in conjunction with jointly provided Special Access Service. Refer to Section 7.10 preceding for additional applicable rates and charges.

The Inter-network Customer Port is the physical location in the Telephone Company switching office where the access customer's transport facility connects to the Telephone Company's FRAS network. It specifies how a frame relay switch sends and receives data from a frame relay access customer's network.

The Inter-network Customer Port is offered at speeds of 1.544 Mbps or 44.736 Mbps. The port connecting the transport facility to the Telephone Company frame relay switch must be ordered and provided at the same speed as the associated transport facility.

**ACCESS SERVICE**16. Public Packet Data Network (Cont'd)16.1 Frame Relay Access Service (Cont'd)16.1.2 Rate Regulations (Cont'd)(A) Rate Categories (Cont'd)(5) Permanent Virtual Connection (PVC)

A PVC is a software defined communications path between two port connections or between a port connection and a DSL Access Service Connection Point.

Each PVC is provisioned with a customer selected Committed Information Rate. The CIR is a transmission speed specified by the customer. CIRs range from 8 kbps to 768 kbps. The Telephone Company will provide switch capacity to permit the customer to transmit information with guaranteed delivery at the specified CIR. The Telephone Company will permit customers to attempt to transmit at speeds up to two times the CIR with no guarantee of completion. Attempted transmissions at above two times the CIR will not be permitted.

Customers will be permitted to order multiple PVCs on a given port subject to switch limitations. Customers anticipating non-simultaneous transmission may order CIRs assigned to these multiple PVCs, the sum of which may theoretically exceed the actual throughput of the port. However, when simultaneous transmission of multiple PVCs occurs, the total of the transmission rate (CIRs) may not exceed the actual throughput of the port.

There are two types of PVCs available. The standard PVC establishes a communications path between two ports or between a port and a DSL Access Service Connection Point within the same Telephone Company frame relay network. The extended PVC establishes a communications path between two ports or between a port and a DSL Access Service Connection Point on two interconnected Telephone Company frame relay networks.

**ACCESS SERVICE**16. Public Packet Data Network (Cont'd)16.1 Frame Relay Access Service (Cont'd)16.1.2 Rate Regulations (Cont'd)(B) Types of Rates and Charges

There are two types of rates and charges. They are monthly rates and nonrecurring charges. The rates and charges are described as follows:

(1) Monthly Rates

Monthly rates are recurring rates that apply each month or fraction thereof that a FRAS is provided. For billing purposes, each month is considered to have 30 days.

(2) Nonrecurring Charges

Nonrecurring charges are one-time charges that apply for specific work activity (i.e., installation or change to an existing service). The types of nonrecurring charges that apply for FRAS are: installation of service and service rearrangements. These charges are in addition to the Access Order Charge as specified in Section 17 following:

(a) Installation of Service

Nonrecurring charges apply for the installation of Frame Relay Access Connections (FRAC), Frame Relay Inter-network Connections (FRIC), and Permanent Virtual Connections (PVC).

A nonrecurring charge applies per FRAC or FRIC installed and is based on the speed of the connection. A nonrecurring charge applies per PVC installed.

**ACCESS SERVICE**16. Public Packet Data Network (Cont'd)16.1 Frame Relay Access Service (Cont'd)16.1.2 Rate Regulations (Cont'd)(B) Types of Rates and Charges (Cont'd)(2) Nonrecurring Charges (Cont'd)(b) Service Rearrangements

Service Rearrangements are changes to existing (installed) services.

A PVC Rearrangement Charge will be applied whenever a change is made to the CIR of an existing PVC after initial port installation and/or a change is made to the terminating port destination of the PVC.

Administrative changes will be made without charge(s) to the customer. Administrative changes are as follows:

- Change of customer name,
- Change of customer or customer's end user premises address when the change of address is not a result of physical relocation of equipment,
- Change in billing data (name, address, or contact name or telephone number),
- Change of agency authorization,
- Change of customer circuit identification,
- Change of billing account number,
- Change of customer or customer's end user contact name or telephone number, and
- Change of jurisdiction.

(c) Moves

A move involves a change in the physical location of one of the following:

- The Point of Termination at the customer's premises
- The customer's premises

**ACCESS SERVICE**16. Public Packet Data Network (Cont'd)16.1 Frame Relay Access Service (Cont'd)16.1.2 Rate Regulations (Cont'd)(B) Types of Rates and Charges (Cont'd)(2) Nonrecurring Charges (Cont'd)(c) Moves (Cont'd)

The charges for the move are dependent on whether the move is to a new location within the same building or to a different building.

(i) Moves Within the Same Building

When the move is to a new location within the same building, the charge for the move will be an amount equal to one half of the nonrecurring (i.e., installation) charge for the service termination affected. There will be no change in the minimum period requirements. This charge is in addition to the Access Order Charge as specified in Section 17 following.

(ii) Moves To a Different Building

Moves to a different building will be treated as a discontinuance and start of service and all associated nonrecurring charges will apply. New minimum period requirements will be established for the new services. The customer will also remain responsible for satisfying all outstanding minimum period charges for the discontinued service.

(C) Minimum Period

The minimum period for FRAS is one month and the full monthly rate will apply to the first month. Adjustments for quantities of services established or discontinued in any billing period beyond the minimum period are as set forth in Section 2.4.1(F) preceding.

The minimum period for discounted FRAS is twelve months as set forth in Sections 2.4.2 and 5.5.1 preceding.

**ACCESS SERVICE**16. Public Packet Data Network (Cont'd)16.1 Frame Relay Access Service (Cont'd)16.1.3 Optional Rate Plans

A Term Discount plan is available for Frame Relay Access Service (FRAS). The Term Discount applies to the Frame Relay Access Connection and Frame Relay Inter-network Connection charges. The End User Port and Inter-network Customer Port charges are eligible for term discounts where the associated Special Access Service facility is eligible for a Special Access Service Term Discount. The conditions under which End User Port and Inter-network Customer Port Term Discounts apply are specified in Section 7.2.8(A)(1) preceding while the Term Discount percentage is as set forth in Section 17 following. The Permanent Virtual Connections (PVC) are not eligible for a Term Discount. Under the Term Discount plan, the current monthly rates for eligible services are reduced by a fixed percentage. The amount of the discount percentage differs based on the length of the service commitment period selected by the customer. The Term Discount percentages for FRAS are as set forth in Section 17 following.

Discounts for the Term Discount plan are only applied to FRAS provided to a customer within the same state and LATA by the same Telephone Company.

The Term Discount Optional Rate Plan is only available from those Telephone Companies listed in Section 17 following.

The minimum service period on a month-to-month basis is one month. Under an Optional Rate Plan, the minimum service period is twelve months.

(A) Term Discounts

FRAS may be ordered at the customer's option on a month-to-month basis or for Term Discount periods of 36 months (3 years) or 60 months (5 years).

The minimum service period for all Term Discount plans is twelve months. The customer must specify the length of the service commitment period at the time the service is ordered.

For customers that subscribe to the Term Discount plan for 36 or 60 months, the Term Discount percentage as set forth in Section 17 following will be frozen from Company initiated decreases for the entire discount period at the percent in effect at the beginning of the Term Discount period.

**ACCESS SERVICE**16. Public Packet Data Network (Cont'd)16.1 Frame Relay Access Service (Cont'd)16.1.3 Optional Rate Plans(A) Term Discounts (Cont'd)

If a Term Discount Percentage increase occurs during the term of an existing Term Discount plan, the increased percentage will be applied automatically to the remainder of the current Term Discount period.

At the end of the Term Discount period, the customer may convert to month-to-month service or subscribe to a new Term Discount plan. If the customer does not make a choice by the end of the discount period, the rates will automatically convert to month-to-month service rates.

To be included in a Term Discount plan, all eligible FRAS rate elements must be ordered for the same commitment term (i.e., all 36 months or all 60 months) and with the same service date. When additional capacity is subsequently added, it will be available only on a month-to-month basis unless the discount period of the entire service is upgraded.

Eligible FRAS rate elements are those provided to a customer within the same state and LATA by the same Telephone Company. As long as the number of FRAS connections included in a Term Discount plan remains constant, customer requests to install and disconnect FRAS connections, including changes affecting different wire centers and/or customer designated premises, will not change the current Term Discount period or the minimum service period, and Discontinuance of Service charges as set forth in Section 16.1.3(A)(3) following will not apply.

(1) Upgrades in Term Discounts

Services provided under month-to-month rates or Term Discount rates may be upgraded to a Term Discount plan at any time without incurring FRAS nonrecurring charges or discontinuance charges for existing services. The new Term Discount plan must meet or exceed the service term of the plan being upgraded. For example, a service with a 36-month commitment period may be upgraded to a new 36-month or 60-month service period. The monthly rates will be those that are in effect at the time the service is upgraded. A new minimum service period applies to all FRAS that is upgraded.

**ACCESS SERVICE**16. Public Packet Data Network (Cont'd)16.1 Frame Relay Access Service (Cont'd)16.1.3 Optional Rate Plans(A) Term Discounts (Cont'd)(2) Upgrades in Capacity

If the customer chooses to upgrade a service under the Term Discount plan to a higher capacity (e.g., from 56.0 kbps to 64.0 kbps or from 56.0 kbps or 64.0 kbps to 1.544 Mbps), discontinuance charges will not apply, provided all the following conditions are met:

- the customer's order for the disconnect of the existing service and the installation of the new service are received at the same time and specifically reference the application of upgrade in capacity,
- the customer's disconnect order for the existing service must reference the service installation order,
- the new service has a total capacity greater than the total capacity of the service being discontinued and,
- the new Term Discount period meets or exceeds the Term Discount period being discontinued.

A new minimum service period applies to all upgrades. A Frame Relay Access Connection nonrecurring charge for an equivalent capacity of the existing services being upgraded to the higher speed service will not be assessed. FRAC nonrecurring charges will not apply to the upgraded lower speed services placed on the higher speed service if requested at the same time as the upgrade request. Nonrecurring charges will apply for capacity that exceeds the existing equivalent capacity.

Discontinuance charges will not apply should the customer choose to upgrade either a portion of or the entire FRAS under the Term Discount plan and move the service to a new customer location(s) within the same state and LATA where service is provided by the same Telephone Company.

**ACCESS SERVICE**16. Public Packet Data Network (Cont'd)16.1 Frame Relay Access Service (Cont'd)16.1.3 Optional Rate Plans(A) Term Discounts (Cont'd)(3) Discontinuance of Service

If the customer chooses to disconnect all or a portion of the service prior to the expiration of the Term Discount period, discontinuance charges will apply to the portion of the service being discontinued.

Should the customer choose to discontinue a Term Discount plan prior to the completion of the minimum service period, discontinuance charges will apply. Discontinuance charges equal to one hundred percent of the total undiscounted monthly rates, less any amounts previously paid, will apply for the minimum service period. Additionally, discontinuance charges of fifteen percent of the total undiscounted monthly charges will apply to the remaining portion of the discount service term.

Should the customer choose to discontinue service ordered under a Term Discount plan after the minimum service period but before the completion of the discount period, discontinuance charges will apply. Discontinuance charges of fifteen percent of the total undiscounted monthly charges will apply to the remaining portion of the discount period. For example, a customer has a 1.544 Mbps Frame Relay Access Connection, which it chooses to discontinue after 33 months into a 60-month service term. The discontinuance charge would be 0.15 times 27 months times the undiscounted monthly rates for that service.

**ACCESS SERVICE**

17. Rates and Charges

17.1 Federal Universal Service Charge

17.1.1 Federal Universal Service Charge (FUSC)

Regulations concerning the Federal Universal Service Charge are set forth in Section 3.9 preceding.

(A)	Business Centrex Rate			
	— per business Centrex CO and Centrex-CO like line	\$ 2.23		(I)
(B)	ISDN PRI Rate			
	— per arrangement	\$23.51		(I)
(C)	Base Rate			
	— per line, per trunk or per ISDN BRI arrangement	9.5%		(C)
			<u>Percentage</u>	
(D)	Special Access Services Revenue Surcharge Factor	9.5%		(I)