TARIFF DISTRIBUTION

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PURPOSE: Grandfather Voice Grade, WATS, Digital Data

Access, and Derived Data Channel Services effective 6/30/21 with targeted sunset

6/30/24.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.1 General

Special Access (a.k.a. BellSouth SPA) service provides a transmission path to connect customer designated premises1, either directly or through a Company hub where bridging or channelization functions are performed. Special Access (a.k.a. BellSouth SPA) service² includes all exchange access not utilizing Company end office switches.

The connections provided by Special Access (a.k.a. BellSouth SPA) service can be either analog or digital. Analog connections are differentiated by spectrum and bandwidth. Digital connections are differentiated by bit rate.

E7.1.1 Channel Types

- A. There are different types of channels used to provide Special Access (a.k.a. BellSouth SPA) services. Each type has its own characteristics. All are subdivided by one or more of the following:
 - Transmission specifications
 - Bandwidth
 - Speed (i.e., bit rate)
 - Spectrum
- B. Customers can order a basic channel and select from a list of available transmission parameters and channel interfaces, those that they desire to meet specific communications requirements.
- C. For purposes of ordering channels, each has been identified as a type of Special Access (a.k.a. BellSouth SPA) service. However, such identification is not intended to limit a customer's use of the channel nor to imply that the channel is limited to a particular use.
- D. Following is a brief description of each type of channel:
 - 1. **(DELETED)**
 - 2. (DELETED)
 - 3. Voice Grade³ (a.k.a. BellSouth SPA DS0 VG) a channel for the transmission of analog signals within an approximate bandwidth of 300-3000 Hz.
 - WATS Access Line³ (a.k.a. BellSouth SPA WATS Line) (WAL) a channel from a customer designated premises to a WATS serving office for 800, WATS or similar service.
 - 5. (DELETED)
 - 6. **(DELETED)**
 - 7. Digital Data Access³ (a.k.a. BellSouth SPA DS0 Digital Data)- a channel for the digital transmission of synchronous serial data at rates of 2.4, 4.8, 9.6 or 56.0 kbps.
 - 8. High Capacity (a.k.a. BellSouth SPA High Capacity) a channel for the transmission of isochronous serial digital data at rates of 1.544, 3.152, 6.312 or 44.736 Mbps.
 - 9. Derived Data Channel³ (a.k.a. BellSouth SPA Derived Data Channel) a digital data channel derived from a two-wire local exchange facility that transmits voice and data signals simultaneously.
 - Note 1: Company Centrex Type Services switches and Company Answering Service Concentrators are considered to be customer premises for purposes of administering regulations and rates contained in this Tariff.

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- Note 2: For purposes of administering the surcharge regulations, WATS (a.k.a. BellSouth SPA WATS Line) access lines are considered to be Special Access (a.k.a. BellSouth SPA) service.
- Note 3: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.1 General (Cont'd)

E7.1.1 Channel Types (Cont'd)

- E. Detailed descriptions of each of the channel types are provided in E7.2 following.
 - 1. The customer also has the option of ordering digital high capacity facilities (i.e., 1.544 Mbps, 3.152 Mbps, 6.312 Mbps and 44.736 Mbps) to a Company Hub for channelization to individual channels of a lower capacity. Descriptions of the types of channelization available at the hubs, as well as the number of individual channels which may be derived from each type of facility are set forth in E7.2 following. Additionally, the customer may specify optional features for the individual channels derived from the facility to further tailor the channel to meet specific communications requirements. Descriptions of the optional features and functions available are also set forth in E7.2 following.
 - 2. For example, a customer may order a 44.736 Mbps facility from a customer designated premises to a Company Hub for channelization to twenty-eight 1.544 Mbps channels. The 1.544 Mbps channels may be further channelized at the same or a different Hub to Voice Grade¹ (a.k.a. BellSouth SPA DS0 VG) channels or may be extended to other customer designated premises. Optional features may be added to either the 1.544 Mbps or the Voice Grade¹ (a.k.a. BellSouth SPA DS0 VG) channels.

E7.1.2 Rate Categories

- A. There are *four* basic rate categories which apply to Special Access (a.k.a. BellSouth SPA) service:
 - 1. Local Channels (described in B. following)
 - 2. Interoffice Channel (described in C. following)
 - 3. Optional Features and Functions (described in D. following)
 - 4. SMARTRing® service (a.k.a. BellSouth Dedicated Ring)

B. Local Channel

The Local Channel rate category provides for the communications path between the demarcation point at a customer premises and the serving wire center of that premises. Included as part of the Local Channel is a standard channel interface arrangement which defines the technical characteristics associated with the type of facilities to which the access service is to be connected at the Point of Termination (POT) and the type of signaling capability, if any. The signaling capability itself is provided as an optional feature as set forth in C. following. One Local Channel charge applies per customer designated premises at which the channel is terminated. This charge will apply even if the customer premises and the serving wire center are co-located in a Company building.

C. Interoffice Channel

The Interoffice Channel rate category provides for the transmission facilities between the serving wire centers associated with two customer designated premises, between a serving wire center associated with a customer designated premises and a Company Hub or between two Company Hubs. Interoffice Channel mileage is portrayed in mileage bands. There are two rates that apply for each band, i.e., a flat rate per band and a rate per mile.

D. Optional Features and Functions

The Optional Features and Functions rate category provides for optional features and functions which may be added to a Special Access (a.k.a. BellSouth SPA) service to improve its quality or utility to meet specific communications requirements. These are not necessarily identifiable with specific equipment, but rather represent the end result in terms of performance characteristics which may be obtained. These characteristics may be obtained by using various combinations of equipment. Although the equipment necessary to perform a specified function may be installed at various locations along the path of the service, they will be charged for as a single rate element.

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.1 General (Cont'd)

E7.1.2 Rate Categories (Cont'd)

- D. Self-healing Multi-nodal Alternate Route Topology Ring (SMARTRing service [a.k.a. BellSouth Dedicated Ring]) (Cont'd)
 - 7. Interoffice Channel

The Interoffice Channel provides for the communications path between directly connected Telephone Company central offices located on a SMARTRing service (a.k.a. BellSouth Dedicated Ring). It is available with all capacities of SMARTRing service (a.k.a. BellSouth Dedicated Ring) except OC-1. This rate element does not apply where Central Office Nodes are adjacently connected in the same Central Office on the same SMARTRing service (a.k.a. BellSouth Dedicated Ring) for the purpose of providing additional node capacity.

8. Internodal Channel

The Internodal Channel provides for the communications path between two directly connected Customer Nodes of a given SMARTRing service (a.k.a. BellSouth Dedicated Ring) located (a) in the same Serving Wire Center area or (b) in the same Office Park/Campus Environment or contiguous property, located in contiguous Serving Wire Center areas. It is available with all capacities of SMARTRing service (a.k.a. BellSouth Dedicated Ring) except OC-1. This rate element does not apply where Customer Nodes are adjacently connected in the same building on the same SMARTRing service (a.k.a. BellSouth Dedicated Ring) for the purpose of providing additional node capacity.

Channel Interface Capacity Reallocation
 Channel Interface Capacity Reallocation allows the customer to reallocate STS-1, DS3 capacity interfaces at each node subsequent to the initial service installation.

E. Access Collocation Cross-Connects

Access Collocation Cross-Connects provide a means for customers to interconnect their Shared Use Digital High Capacity (a.k.a. BellSouth SPA High Capacity) to Central Office Collocation arrangements within the same Central Office. Terms, conditions, and rates for Physical Access Collocation Cross-Connects and Virtual Access Collocation Cross-Connects are set forth in Section E13. of this Tariff.

E7.1.3 Service Configurations

There are three types of service configurations over which Special Access (a.k.a. BellSouth SPA) services are provided: two-point service, multipoint service and SMARTRing service (a.k.a. BellSouth Dedicated Ring)

A. Two-Point Service

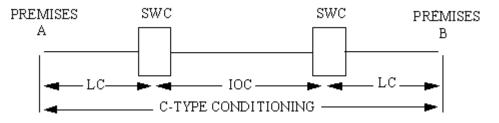
A two-point service connects two customer designated premises, either on a directly connected basis or through a hub where channelization functions are performed.

Applicable rate elements are:

- Local Channels
- Interoffice Channels (as applicable)
- Optional Features and Functions (when applicable)

In addition, a Special Access (a.k.a. BellSouth SPA) Surcharge as set forth in E7.4.2 following and a Message Station Equipment Recovery Charge as set forth in E7.4.3 following may be applicable.

The following diagram depicts a two-point Voice Grade¹ (a.k.a. BellSouth SPA DS0 VG) service connecting two customer designated premises located 15 miles apart. The service is provided with C-Type Conditioning.



LC - Local Channels

IOC - Interoffice Channel

SWC- Serving Wire Center

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

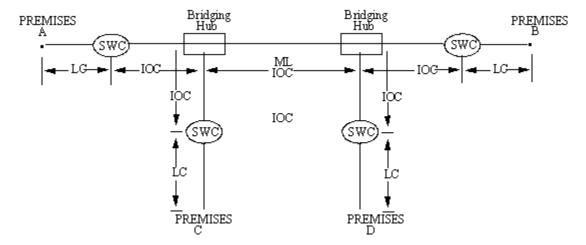
E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.1 General (Cont'd)

E7.1.3 Service Configurations (Cont'd)

B. Multipoint Service (Cont'd)

Example: Voice Grade¹ (a.k.a. BellSouth SPA DS0 VG) multipoint connecting four customer premises via two customer specified bridging hubs.



- 2. Applicable rate elements are:
 - a. Local Channels (4 applicable)
 - b. Interoffice Channel (5 sections, each from appropriate mileage band)
 - c. Bridging Optional Feature (6 applicable, i.e., each bridge port)

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.1 General (Cont'd)

E7.1.4 Alternate Use

- Alternate Use occurs when a service is arranged by the Company so that the customer can select different types of transmission at different times. A customer may use a service in any privately beneficial manner. However, where technical or engineering changes are required to effectuate an alternative use, the Company will make such special arrangements available on an individual case basis.
- The arrangement required to transfer the service from one operation to the other (i.e., the transfer relay and control leads) will be rated and provided on an individual case basis and filed in Section E12., Specialized Service or Arrangements. The customer will pay the stated tariff rates for the Access service rate elements for the service ordered (i.e., Local Channels, Interoffice Channels as applicable, and Optional Features and Functions, if any.)

E7.1.5 Special Facilities Routing

A customer may request that the facilities used to provide Special Access (a.k.a. BellSouth SPA) service be specially routed. The regulations, rates and charges for Special Facilities Routing (i.e., Avoidance, Diversity and Cable Only) are as set forth in Section E11. following.

E7.1.6 Design Layout Report

At the request of the customer, the Company will provide to the customer the make-up of the facilities and service provided under this Tariff as Special Access (a.k.a. BellSouth SPA) service to aid the customer in designing its overall service. This information will be provided in the form of a Design Layout Report.

The Design Layout Report will be provided to the customer at no charge, and will be reissued or updated whenever these facilites are materially changed.

E7.1.7 Acceptance Testing

- A. At no additional charge, the Company will, at the customer's request, cooperatively test, at the time of installation, the following parameters:
 - For Voice Grade¹ (a.k.a. BellSouth SPA DS0 VG) services, acceptance tests will include tests for loss, 3-tone slope, DC continuity, operational signaling, C-notched noise and C-message noise when these parameters are applicable and specified in the order of service. Additionally, for Voice Grade¹ (a.k.a. BellSouth SPA DS0 VG) services, a balance (improved loss) test will be made if the customer has ordered the improved loss optional feature.
 - For other analog services, WATS Access Line¹ (a.k.a. BellSouth SPA WATS Line), digital services (i.e., Digital Data Access¹ (a.k.a. BellSouth SPA DS0 Digital Data), WATS Access Line¹ (a.k.a. BellSouth SPA WATS Line) and High Capacity (a.k.a. BellSouth SPA High Capacity)), acceptance tests will include tests for the parameters applicable to the service as specified in the order for service.
- In addition to the above tests, Additional Cooperative Acceptance Testing for Voice Grade¹ (a.k.a. BellSouth SPA DS0 VG) service to test other parameters, as described in E13.3.5.B. following, is available at the customer's request. All test results will be made available to the customer upon request.

E7.1.8 Ordering Options and Conditions

- The ordering option available to the customer in the provision of Special Access (a.k.a. BellSouth SPA) service is the Access
- This option is set forth in detail in Section E5. preceding. Also included in that section are other charges which may be associated with ordering Special Access (a.k.a. BellSouth SPA) service (e.g., Service Data Change Charges, Cancellation
- For the purposes of ordering, there are different categories of Special Access (a.k.a. BellSouth SPA) service. These are:
 - (DELETED) 1.
 - 2. (DELETED)
 - Voice Grade¹ (a.k.a. BellSouth SPA DS0 VG) (VG) 3.

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.1 General (Cont'd)

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E7.1.8 Ordering Options And Conditions (Cont'd)

- C. For the purposes of ordering, there are ten categories of Special Access (a.k.a. BellSouth SPA) service. These are: (Cont'd)
 - 4. (DELETED)
 - 5. Digital Data Access¹ (a.k.a. BellSouth SPA DS0 Digital Data) service (DDAS)
 - High Capacity (a.k.a. BellSouth SPA High Capacity) (HC)
 - 7. WATS Access Line¹ (a.k.a. BellSouth SPA WATS Line) (WAL)
 - 8. Derived Data Channel¹ (a.k.a. BellSouth SPA Derived Data Channel) service
 - 6. Derived Data Channel' (a.k.a. Bensouth SFA Derived Data Channel) service
 - 9. Self-Healing Rings (SMARTRing service [a.k.a. BellSouth Dedicated Ring])
- D. Each service consists of a basic channel to which a predefined technical specifications package, channel interface(s) and, when desired, optional features and functions are added to construct the service desired by the customer. Each of the components of the service is described in this section. Terms, conditions, and rates for Physical Access Collocation Cross-Connects and Virtual Access Collocation Cross-Connects are set forth in Section E13. of this Tariff for those services that are permitted to connect directly to a carrier's collocation space.
- E. The channel description specifies the characteristics of the basic channel and indicates whether the channel is provided between customer designated premises or between a customer designated premises and a Company hub where bridging and/or channelization functions are performed.
- F. Information pertaining to the technical specifications packages indicates the transmission parameters that are available with each package. This information is displayed in a matrix with the transmission parameters listed down the left side and the packages listed across the top. Each package is identified by a code, e.g., VG1. The first two letters of the code indicate the category of Special Access (a.k.a. BellSouth SPA) service to which the parameters are applicable. These two-letter codes are shown above in parentheses following the category of Special Access (a.k.a. BellSouth SPA) service. The number "1" following the two-letter code indicates the technical specifications package for a voice grade¹ service. An alphanumeric designation following the two letter code indicates the specific predefined package. When appropriate, the Technical Reference which contains detailed specifications for the parameters is shown following the matrix.
- G. Channel interfaces at each point of termination on a two-point service may be symmetrical or asymmetrical. On a multipoint service they may also be symmetrical or asymmetrical. However, communications can only be provided between points of termination with compatible channel interfaces. Only certain channel interfaces are compatible. These are set forth in a combination format.
 - Only certain channel interface combinations are available with the predefined technical specifications packages. These are delineated in the Technical References set forth at the end of this E7.2.
- H. The optional features and functions available with each type of Special Access (a.k.a. BellSouth SPA) service are described in this section. The optional features and functions information also indicates with which technical specifications packages they are available. Such information is displayed in a matrix with the optional feature or function listed down the left side and the technical specifications package listed across the top.
- I. The Company will maintain existing transmission specifications on services installed prior to the effective date of this Tariff, except that the existing services with performance specifications exceeding the standard listed in this provision will be maintained at the performance levels specified in this Tariff.

All services installed after the effective date of this Tariff will conform to the transmission specification standards contained in this Tariff or in the following Technical References for each category of service:

Voice Grade¹ (a.k.a. BellSouth SPA DSO VG)

TR-NPL-000335 PUB 41004, Table 4

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.1 General (Cont'd)

E7.1.8 Ordering Options And Conditions (Cont'd)

I. (Cont'd)

Digital Data Access¹ (.a.k.a. BellSouth DSO Digital Data) TR-NPL-000341 For 2.4, 4.8, 9.6 and 56.0 BellCore PUB 62310

Kbps

For 19.2 Kbps INC. BULLETIN
CB-INC-100

For 64.0 Kbps AT&T PUB 62310
High Capacity (a.k.a. BellSouth SPA High Capacity)
TR-NPL-000342
PUB 62411

WATS Access Line¹ (a.k.a. BellSouth SPA WATS Line) TR-NPL-000334 (C)
Derived Data Channel¹ service (a.k.a. BellSouth Derived Data Channel) BellSouth TR-73548 (C)

BellSouth TR-73548, Addendum 1

E7.2 Service Descriptions

E7.2.1 Reserved for Future Use

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.2 Service Descriptions (Cont'd)

E7.2.2 Reserved for Future Use

E7.2.3 Voice Grade¹ (a.k.a. BellSouth SPA DS0 VG) Service

A. Basic Channel Description

A Voice Grade (a.k.a. BellSouth SPA DS0 VG) channel is a channel which provides voice frequency transmission capability in the nominal frequency range of 300 to 3000 Hz and may be terminated two-wire or four-wire. Voice Grade (a.k.a. BellSouth SPA DS0 VG) channels are provided between customer designated premises or between a customer designated premises and a Company Hub.

Voice Grade (a.k.a. BellSouth SPA DS0 VG) Channels are classified as Voice Grade/Voice or Voice Grade/Data depending on the suitability of the technical specification package requested by the customer. Voice Grade (a.k.a. BellSouth SPA DS0 VG) Technical Specification Packages 1, 2, 3, 4, 5, 7, 8, 9, 11 and 12 are suitable for Voice Grade/Voice. The Technical Specification Packages 6 and 10 are suitable for Voice Grade/Data Service.

B. Technical Specifications Packages

	Package V							ge v G	J-			
Parameter	1	2	3	4	5	6	7	8	9	10	11	12
Attenuation Distortion	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

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.2 Service Descriptions (Cont'd)

E7.2.3 Voice Grade⁴ (a.k.a. BellSouth SPA DS0 VG) Service (Cont'd)

B. Technical Specifications Packages (Cont'd)

Echo Control $X \quad X \quad X$ X X X X Envelope Delay Distortion $X \quad X \quad X \quad X \quad X$ X X Frequency Shift $X \quad X \quad X \quad X$ X X X Impulse Noise $X \quad X \quad X \quad X \quad X$ X Intermodulation Distortion $X \quad X \quad X \quad X$ Loss Deviation X X X X X X X X X XX X Phase Jitter $X \quad X \quad X \quad X \quad X$ X Signal-to-C Message Noise Signal-to-C Notch Noise $X \quad X \quad X \quad X \quad X$

The technical specifications for these parameters are delineated in Technical Reference TR-NPL-000335 and associated Addendum.

C. Channel Interfaces

The following channel interfaces for Voice Grade (a.k.a. BellSouth SPA DS0 VG) service do not require signaling capability: DA, DB, DD, DE, DS, NO, PR and TF.

The following channel interfaces for Voice Grade (a.k.a. BellSouth SPA DS0 VG) service require signaling capability: AB, AC, CT, DX, EA, EB, EC, EX, GO, GS, LA, LB, LC, LO, LR, LS, RV and SF.

Compatible channel interfaces are set forth in Technical Reference TR-NPL-A and Associated Addendum following.

- D. Optional Features And Functions
 - 1. Central Office Bridging
 - a. Voice Bridging¹ (two-wire and four-wire)
 - b. Data Bridging² (two-wire and four-wire)
 - c. Telephoto Bridging³ (two-wire and four-wire)
 - Note 1: Voice Bridging is intended for use with VG2, 5 and 12. However, it may be used on VG6 and VG10 at a customer's request.
 - Note 2: Data Bridging is intended for use with VG6 and VG10. However, it may be used on VG2, 5 and 12 at a customer's request.
 - Note 3: Telephoto Bridging is intended for use on VG11.
 - Note 4: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.2 Service Descriptions (Cont'd)

E7.2.3 Voice Grade¹ (a.k.a. BellSouth SPA DS0 VG) Service (Cont'd)

- D. Optional Features And Functions (Cont'd)
 - 2. Conditioning

Conditioning provides more specific transmission characteristics for Voice Grade (a.k.a. BellSouth SPA DS0 VG) services. C-Type conditioning controls attenuation distortion and envelope delay distortion. Sealing Current helps maintain continuity on dry metallic¹ loops.

For two-point services, the parameters apply to each service. For multipoint services, the parameters apply to each mid link or end link. C-Type conditioning and D-Conditioning may be combined on the same service.

a. C-Type Conditioning

C-Type Conditioning is provided for the additional control of attenuation distortion and envelope delay distortion on data services. The attenuation distortion and envelope delay distortion specifications for C-Type Conditioning are:

Attenuation Distortion (Frequency Response) Relative to 1004 Hz

Frequency	Variation
Range (Hz)	(dB)
504 - 2804	-1.0 to + 3.0
304 - 3004	-2.0 to + 6.0

Envelope Delay Distortion

Frequency	Variation
Range (Hz)	(micro-seconds)
1004 - 2604	Less than 501
604 - 2604	Less than 1501
504 - 2804	Less than 3001

b. Improved Attenuation Distortion

Improved attenuation distortion is provided for additional control of attenuation distortion. The improved attenuation distortion specifications are:

Attenuation Distortion (Frequency Response) Relative to 1004 Hz

Frequency	Variation
Range (Hz)	(dB)
404-2804	-1.0 to +2.0
304-3004	-1.0 to $+3.0$
3004-3204	-2.0 to +6.0

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.2 Service Descriptions (Cont'd)

E7.2.3 Voice Grade¹ (a.k.a. BellSouth SPA DS0 VG) Service (Cont'd)

- **D.** Optional Features And Functions (Cont'd)
 - 2. Conditioning (Cont'd)
 - c. Improved Envelope Delay Distortion

Improved envelope delay distortion is provided for additional control of envelope distortion. The improved envelope delay distortion specifications are:

Envelope Delay Distortion

Frequency	Variation				
Range (Hz)	(micro-seconds)				
1001-2604	Less than 101				
604-2604	Less than 301				
504-2804	Less than 3001				

d. Sealing Current Conditioning

Sealing Current Conditioning is provided to help maintain continuity on dry metallic¹ loops. It is usually associated with four-wire DA or NO type channel interfaces.

3. Customer Specified Premises Receive Level

This option allows the customer to specify the receive level at the Point of Termination. The level must be within a specific range of effective four-wire transmission. The ranges are delineated in Technical Reference TR-NPL-000335.

- Echo Control
 - a. ELEPL 2 (Equal Level Echo Path Loss)

On Effective Two-Wire Transmission at Four-Wire Point of Termination (applicable to each two-wire port): Provides for a fixed 600 ohm impedance, variable level range and simplex reversal. Company equipment is required at the customer's premises where this option is ordered. Equal Level Echo Path Loss parameters are delineated in Technical Reference TR-NPL-000335.

b. Improved Return Loss

On Effective Two-Wire Transmission at Two-Wire Point of Termination: Provides for more stringent Echo Control specifications. In order for this option to be applicable, the transmission path must be four-wire at one Point of Termination (POT) and two-wire at the other POT. Placement of Company equipment may be required at the customer's premises with two-wire POT. The Improved Return Loss parameters are delineated in Technical Reference TR-NPL-000335.

D-Conditioning

D-Conditioning provides transmission characteristics suitable for data communications. Specifically, D-Conditioning provides for the control of Signal to C-Notched Noise Ratio and intermodulation distortion. It is available for two-point services or multipoint services.

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.2 Service Descriptions (Cont'd)

E7.2.3 Voice Grade¹ (a.k.a. BellSouth SPA DS0 VG) Service (Cont'd)

- D. Optional Features And Functions (Cont'd)
 - 5. D-Conditioning (Cont'd)

The signal to C-Notched Noise Ratio and intermodulation distortion parameters for D-Conditioning are:

- Signal to C-Notched Noise Ratio is equal to or greather than 32dB
- Intermodulation distortion:
 - Signal to second order modulation products (R2) is equal to or greater than 38dB
 - Signal to third order modulation products (R3) is equal to or greater than 42dB

When a service equipped with D-Conditioning is used for voice communications, the quality of the voice transmission may not be satisfactory. D-Conditioning transmission characteristics are described in Technical Reference TR-NPL-000335 under the name Data Capability.

6. Telephoto Conditioning

Telephoto Conditioning provides transmission characteristics suitable for telephotographic communications. Specifically, Telephoto Conditioning is provided for the control of attenuation distortion and envelope delay distortion on telephotographic services. The attenuation distortion and envelope delay distortion parameters for Telephoto Conditioning are:

Attenuation Distortion (1004 Hz Reference)

Frequency Range (Hz)	Variation (dB)
500 - 3000	- 0.5 to + 1.5
300 - 3200	$-1.0 \text{ to } \pm 2.5$

Envelope Delay Distortion

Frequency	Variation
Range (Hz)	(mcs)
1000 - 2600	Less than 111
800 - 2800	Less than 181

7. Signaling Capability

Signaling Capability provides for the process by which one customer premises alerts another customer premises on the same service with which it wishes to communicate.

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.2 Service Descriptions (Cont'd)

E7.2.3 Voice Grade¹ (a.k.a. BellSouth SPA DS0 VG) Service (Cont'd)

- D. Optional Features And Functions (Cont'd)
 - 8. Improved Termination

The Improved Termination option provides a fixed 600 ohm impedance, a variable level range and simplex reversal, when applicable, at the point of termination. Company equipment is required at the customer's premises when this option is ordered. The Improved Termination parameters are delineated in Technical Reference TR-NPL-000335.

9. Simplex Reversal

The Simplex Reversal option physically turns over the simplex DC path presented at the four-wire point of termination when LO, LS, GO, GS, & DX signaling is provided at the point of termination.

10. BellSouth SPA CNM - FlexServ service (a.k.a. BellSouth SPA Customer Reconfiguration)

BellSouth SPA CNM - FlexServ service (a.k.a. BellSouth SPA Customer Reconfiguration) provides the customer the ability to monitor and reconfigure Voice Grade (a.k.a. BellSouth SPA DS0 VG) service provided by the Company. **BellSouth SPA CNM** - FlexServ service (a.k.a. BellSouth SPA Customer Reconfiguration) is described in E7.4.12 following. Charges for this feature are contained in E7.5.16 following.

The following table shows the technical specifications packages with which the optional features and functions are available.

	Available with Technical								
	Specifications Package VG-								
	1 2	2 3	4 5	6	7 8	9	10	11	12
C-Type Conditioning			X	X	X X	X	X		
Improved Attenuation									
Distortion			X	X 2	X	X	X		
Improved Envelope									
Delay Distortion			X	X 2	X	X	X		
Central Office									
Bridging									
Capability	X		X	X			X	X	X
Customer Specified									
Premises Receive									
Level	X	X		2	X	X			
D-Conditioning				X	ζ.	X			
Echo Control									
Improved Return									
Loss	Y	X			X				
ELEPL2	X	X X	>		X				
BellSouth SPA CNM - FlexServ service	X	X X	X	XX	X X	X	X	X	
Improved Termination	X	X X	X	XX	X X	X	X	X	X
Simplex Reversal	X	X X			X X	X			

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.2 Service Descriptions (Cont'd)

E7.2.3 Voice Grade¹ (a.k.a. BellSouth SPA DS0 VG) Service (Cont'd)

- D. Optional Features And Functions (Cont'd)
 - 9. Simplex Reversal (Cont'd)

Available with Technical Specifications Package VG1 2 3 4 5 6 7 8 9 10 11 12

X

 $X \quad X \quad X$

Conditioning
Signaling Capability
Telephoto
Conditioning

Sealing Current

X

E. Four-Wire/Two-Wire Conversions

When a customer requests that an effective four-wire channel be terminated with a two-wire channel interface at the customer designated premises, a four-wire to two-wire conversion is required. The rate for the conversion is included as part of the basic Local Channel rate.

 $X \quad X \quad X$

- F. WATS Access Line¹ (WAL) (a.k.a. BellSouth SPA WATS Line) service
 - 1. Basic Channel Description

A WATS Access Line (a.k.a. BellSouth SPA WATS Line) service (WAL) provides a channel for voice frequency transmission capability. The service provides a connection between a customer designated premises and a WATS serving office associated with the closed end of BellSouth SWA 8XX Toll Free Dialing Ten Digit Screening Service, WATS (a.k.a. BellSouth SPA WATS Line) or similar services. It is provided for use with BellSouth SWA FGD in the originating and terminating direction and BellSouth SWA FGA or BellSouth SWA FGB in the terminating direction and BellSouth SWA service arrangement features as set forth in Section 6 of Tariff FCC No. 1. The Company is currently unable to provide originating WATS (a.k.a. BellSouth SPA WATS Line) service through BellSouth SWA FGA or BellSouth SWA FGB. Such service will be provided as specified in 2. and 3. following.

The following shall apply to the Company's provision of WATS Access Line (a.k.a. BellSouth SPA WATS Line) service:

- a. When the end user's serving wire center is not a WATS serving office, channel mileage charges will apply for a WATS access line (a.k.a. BellSouth SPA WATS Line) extension (WALE) between the end user's serving wirecenter and the nearest WATS serving office.
- b. When a customer, other than AT&T, orders originating WATS Access Line (a.k.a. BellSouth SPA WATS Line) service and the end user's serving wire center is a WATS serving office which is not equipped with equal access, the Company will provide the WAL service to the nearest equal access WATS serving office by use of a WALE and the channel mileage charges for the WALE will be waived.
- c. When a customer other than AT&T orders originating WATS Access Line (a.k.a. BellSouth SPA WATS Line) service and the end user's serving wire center is not a WATS serving office and the nearest WATS serving office is not equipped with equal access, channel mileage charges for a WALE to the nearest WATS serving office will apply, as indicated in 1. preceding, but the Company will provide an additional WALE to the nearest WATS serving office equipped with equal access and the channel mileage charge for the additional WALE will be waived.

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.2 Service Descriptions (Cont'd)

E7.2.3 Voice Grade¹ (a.k.a. BellSouth SPA DS0 VG) Service (Cont'd)

- F. WATS Access Line¹ (WAL) (a.k.a. BellSouth SPA WATS Line) service (Cont'd)
 - 1. Basic Channel Description (Cont'd)
 - c. (Cont'd)

WATS Access Line (a.k.a. BellSouth SPA WATS Line) service is arranged for either originating calling or terminating calling. It is provided with either rotary dial or dual tone multifrequency address signaling and either loop start, ground start, E & M or reverse battery supervisory signaling. The choice of the type of signaling is at the option of the customer and subject to the technical limitations identified in the Technical Reference TR-NPL-000334. WATS Access Line (a.k.a. BellSouth SPA WATS Line) service is provided as an effective two-wire, an effective four-wire or a DS1 (i.e., 1.544 Mbps) transmission path. The DS1 WAL is only available as a trunk side termination on suitably equipped electronic switch, e.g., 1/1A ESS with Digital Carrier Termination (DCT) or DMS-100 with a Line Trunk Unit (LTU).

2. Technical Specification Packages

	Package WAL -
Parameters	1 2 3
Attenuation Distortion	X X
Bit error rate	X
C-Message Noise	X X
Echo Control	X X
Envelope Delay Distortion	X X
Frequency Shift	X X
Impulse Noise	X X
Intermodulation Distortion	X X
Loss Deviation	X X
Phase Jitter	X X
Signal-to-C Notch Noise	X X

The technical specifications are delineated in Technical Reference TR-NPL-000334.

3. The following interfaces are available with WAL Service:

LO, LS, DS, GO, GS, RV, EA, EB

Compatible channel interfaces are set forth in Technical Reference TR-NPL-000334.

- 4. Optional Features and Functions
 - a. Two-wire and four-wire Central Office bridging capability.
 - b. Improved two-wire voice transmission specifications.
 - c. Certain other options associated with WAL services such as WATS (a.k.a. BellSouth SPA WATS Line) Access Line Nonchargeable Termination Options and Common Switching Optional Features are available as defined in Section E6. preceding.

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.2 Service Descriptions (Cont'd)

E7.2.3 Voice Grade¹ (a.k.a. BellSouth SPA DS0 VG) Service (Cont'd)

- F. WATS Access Line¹ (WAL) (a.k.a. BellSouth SPA WATS Line) service (Cont'd)
 - 4. Optional Features and Functions (Cont'd)
 - d. One-way or Two-way Capability

E7.2.4 Reserved for Future Use

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.2 Service Descriptions (Cont'd)

E7.2.5 Digital Data Access² (a.k.a. BellSouth SPA DS0 Digital Data) Service

A. Basic Channel Description

A Digital Data (a.k.a. BellSouth SPA DS0 Digital Data) channel is a channel for duplex four-wire transmission of synchronous serial data at the rate of 2.4, 4.8, 9.6, 19.2, 56.0 or 64.0 Kbps. The actual bit rate is a function of the channel interface selected by the customer. The channel provides a synchronous service with timing provided by the Company through the Company's facilities to the customer in the received bit stream. Digital Data (a.k.a. BellSouth SPA DS0 Digital Data) channels are only available via Company designated Digital Data (a.k.a. BellSouth SPA DS0 Digital Data) Hubs and are provided between customer designated premises or between a customer designated premises and a Company Digital Data (a.k.a. BellSouth SPA DS0 Digital Data) Hub.

A Hub termination charge applies per Digital Local Channel. This rate element covers the Hub functions (e.g., timing, testing) for the service.

Secondary Channel Capability (SCC) is a derived companion digital transmission path that is independent of the primary data path and operates at a substantially lower bit rate. This derived channel allows the customer to perform network management functions during the normal operation of the network. This diagnostics channel utilizes a portion of a customer's previously unavailable data bit stream allowing for the ability to remotely control and test the network and peripheral devices without taking the network out of service. Special customer equipment is necessary to utilize the benefits of the Secondary Channel. Customers not wishing to utilize this capability will not be impacted. Due to transmission equipment restrictions, Secondary Channel cannot be provided on 56.0 Kbps circuits that require the installation of loop repeater equipment for provision of service. Secondary Channel Capability, also, cannot be provided on 64.0 Kbps circuits, since all of the available bit stream will be used by the customer.

The customer will provide the Channel Service Unit-type equipment or other Network Channel Terminating Equipment associated with the Digital Data (a.k.a. BellSouth SPA DS0 Digital Data) channel at the customer premises. The interim program for interconnection of such equipment is set forth in Technical Reference PUB AS No. 1.

B. Technical Specifications Packages

	Package DA-					
Parameter	1	2	3	4	5	6
Error-Free Seconds	X	X	X	X	X	X

The Company will provide a channel capable of meeting a monthly average performance equal to or greater than 99.875 percent error-free seconds1 while the channel is in service, if it is measured through a CSU equivalent which is designed, manufactured, and maintained to conform with the specifications contained in Technical Reference PUB 62310.

Note 1: This channel performance does not apply when the Data Over Voice Channel option is used.

Note 2: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.2 Service Descriptions (Cont'd)

E7.2.5 Digital Data Access² (a.k.a. BellSouth SPA DS0 Digital Data) Service (Cont'd)

B. Technical Specifications Packages (Cont'd)

Interface options and service objectives for Digital Data Access (a.k.a. BellSouth SPA DS0 Digital Data) service are delineated in Technical Reference TR-NPL-000341.

C. Channel Interfaces

The following channel interfaces (CIs) define the bit rates that are available for a Digital Data (a.k.a. BellSouth SPA DS0 Digital Data) channel:

CI	Bit Rate
DU-24(S) ¹	2.4 Kbps
$DU-48(S)^{1}$	4.8 Kbps
DU-96(S) ¹	9.6 Kbps
$DU-19(S)^{1}$	19.2 Kbps
$DU-56(S)^{1}$	56.0 Kbps
DU-64	64.0 Kbps

Compatible channel interfaces are set forth in Technical Reference TR-NPL-000-341.

- Optional Features and Functions
 - 1. Central Office Bridging Capability
 - 2. Secondary Channel Capability
 - 3. BellSouth SPA CNM FlexServ service (a.k.a. BellSouth SPA Customer Reconfiguration)

BellSouth SPA CNM - FlexServ service provides the customer the ability to monitor and reconfigure Digital Data Access (a.k.a. BellSouth SPA DS0 Digital Data) service provided by the Company. **BellSouth SPA CNM** - FlexServ service is described in E7.4.12 following. Charges for this feature are contained in E7.5.16 following.

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Note 1: (S) is an additional BellSouth designation for use when the optional Secondary Channel feature is required.

Note 2: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.2 Service Descriptions (Cont'd)

E7.2.5 Digital Data Access¹ (a.k.a. BellSouth SPA DS0 Digital Data) Service (Cont'd)

D. Optional Features and Functions (Cont'd)

The following table shows the technical specifications packages with which the optional features and functions are available.

Available with Technical Specifications Package DA-

	1	2	3	4	5	6
Central Office Bridging						
Capability	X	X	X	X	X	
Secondary Channel Capability	X	X	X	X	X	
BellSouth SPA CNM - FlexServ Service	X	X	X	X	X	X

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.



E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.2 Service Descriptions (Cont'd)

E7.2.6 High Capacity (a.k.a. BellSouth SPA High Capacity) Service

A. Basic Channel Description

A High Capacity (a.k.a. BellSouth SPA High Capacity) channel is a channel for the transmission of nominal 64.0 Kbps^{1,3} or 1.544, 3.152, 6.312 or 44.736 Mbps isochronous serial data. The actual bit rate is a function of the channel interface selected by the customer. High Capacity (a.k.a. BellSouth SPA High Capacity) channels are provided between customer designated premises or between a customer designated premises and a Company Hub.

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The customer will provide the Network Channel Terminating Equipment associated with the High Capacity (a.k.a. BellSouth SPA High Capacity) channel at the cutomer's premises. The interim program for interconnection of such equipment is set forth in Technical Reference PUB AS No. 1.

B. Technical Specifications Packages

	Package HC-				
Parameters	0	1	1C	2	3
Error-Free Seconds		X			

A channel with technical specifications package HC1 will be capable of an error-free second performance of 98.75 percent 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 TR-NPL-000054.

C. Channel Interfaces

The following channel interfaces (CIs) define the bit rates that are available for a High Capacity (a.k.a. BellSouth SPA High Capacity) channel:

CI	Bit Rate
DS-15 ^{2, 3}	1.544 Mbps (DS1)
DS-31	3.152 Mbps (DS1C)
DS-44	44.736 Mbps (DS3)
DS-63	6.312 Mbps (DS2)

Compatible channel interfaces are set forth in Technical Reference TR-NPL-000342.

Note 1: Available only as a cross connect (through connection) of two 2.4, 4.8, 9.6, 19.2, 56.0 or 64.0 Kbps channels of two 1.544 Mbps facilities to a Digital Data (a.k.a. BellSouth SPA DSO Digital Data) Hub(s). The customer must provide system and channel assignment data.

Note 2: A 64.0 Kbps channel is available as a channel(s) of a 1.544 Mbps facility to a Company hub.

Note 3: Effective June 30, 2021, 64.0 Kbps will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.2 Service Descriptions (Cont'd)

E7.2.6 High Capacity (a.k.a. BellSouth SPA High Capacity) Service (Cont'd)

- D. Optional Features and Functions (Cont'd)
 - 3. Channelization
 - a. DS3 to DS1

An arrangement that channelizes a 44.736 Mbps channel to 28 DS1 channels.

b. DS2 to DS1

An arrangement that channelizes a 6.312 Mbps channel to four DS1 channels.

c. DS1C to DS1

An arrangement that channelizes a 3.152 Mbps channel to two DS1 channels.

d. DS1 Basic Channelization System

An arrangement that channelizes a 1.544 Mbps channel to a maximum of twenty-four 64.0 Kbps channels that may be used to activate both analog and digital services, e.g., voice grade and digital data access service. A DS1 Basic Channelization System requires a Central Office Channel Interface for each channel of lesser capacity.

e. DS0 Basic Channelization System¹

An arrangement that channelizes a 64.0 Kbps channel to subspeeds of up to twenty 2.4 Kbps, ten 4.8 Kbps, or five 9.6 Kbps channels. A DS0 Basic Channelization System requires a Central Office Channel Interface for each channel of lesser capacity.

4. Channel Interface

a. DS1 Level Central Office Channel Interface

An arrangement for the connection of DS1 (1.544 Mbps) channels to higher order DS3 (44.736 Mbps) services in Company central office locations.

b. DS1 Level Customer Channel Interface

An arrangement for the connection of DS1(1.544 Mbps) channels to higher order DS3 (44.736 Mbps) services at customer locations.

c. DS0 Level Customer Channel Interface¹

An arrangement for the connection of VG/DS0 (2.4 - 64.0 Kbps) channels to higher order DS1 (1.544 Mbps) services in Company central office locations.

d. Subrate Level Central Office Channel Interface¹

An arrangement for the connection of subrate (2.4 - 9.6 Kbps) channels to higher order DS0 (64.0 Kbps) services in Company central office locations.

5. BellSouth SPA CNM - FlexServ service

BellSouth SPA CNM - FlexServ service provides the customer the ability to monitor and reconfigure High Capacity (a.k.a. BellSouth SPA High Capacity) service provided by the Company. **BellSouth SPA CNM** - FlexServ service is described in E7.4.12 following. Charges for this feature are contained in E7.5.16 following.

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.2 Service Descriptions (Cont'd)

E7.2.6 High Capacity (a.k.a. BellSouth SPA High Capacity) Service (Cont'd)

D. Optional Features and Functions (Cont'd)

The following table shows the technical specifications packages with which the optional features and functions are available.

Available With Technical Specifications Package HC-

0 1 1C 2 3

Channelization: DS3 to DS1 DS2 to DS1

DS1C to DS1
DS1 Basic Channelization System
DS0 Basic Channelization System^{1, 2}
Clear Channel Capability
BellSouth SPA CNM - FlexServ Service

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E7.2.7 Reserved for Future Use

E7.2.8 Reserved for Future Use

E7.2.9 Reserved for Future Use

Note 1: Available only on 64.0 Kbps DDAS (a.k.a. BellSouth SPA DS0 Digital Data) service or on a DS1 (1.544 Mbps) channel with Clear Channel Capability to a Company hub.

Note 2: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.2 Service Descriptions (Cont'd)

E7.2.14 (DELETED) (Cont'd)

E7.2.15 Derived Data Channel¹ (a.k.a. BellSouth SPA Derived Data Channel) Service

A. Basic Service Description

Derived Data Channel (a.k.a. BellSouth SPA Derived Data Channel) service (DDCS) provides full-duplex asynchronous or synchronous data transmission utilizing data over voice and subrate multiplexing technology. DDCS (a.k.a. BellSouth SPA Derived Data Channel) provides simultaneous data and voice transmissions over the customer's existing two-wire local exchange facility. A derived data channel is provided between the customer's premises and the customer's serving wire center.

At the customer's serving wire center the data/voice terminating equipment provides subrate multiplexing into a standard DS0-B interface for a group composed of a maximum of twenty derived data channels. The customer's derived data channel must be associated with a DS0-B interface. This association requires coordination between the subscriber of the derived data channel and the subscriber of the DS0-B interface. An interoffice channel is provided for interconnection of the subrate multiplexed DS0-B interface to the serving wire center of a customer designated premises.

DDCS (a.k.a. BellSouth SPA Derived Data Channel) is provided subject to the availability of appropriate network facilities and equipment and subject to the transmission limitations of the facilities and equipment used by the Company.

The customer will be responsible for selecting his own Customer Premises Equipment (CPE). CPE must be compatible with the Company provided terminating equipment at the serving wire center.

Note 1:Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.2 Service Descriptions (Cont'd)

E7.2.15 Derived Data Channel¹ (a.k.a. BellSouth SPA Derived Data Channel) Service (Cont'd)

B. Channel Interfaces

The following channel interface (CI) is available for DDCS (a.k.a. BellSouth SPA Derived Data Channel).

CI Bit Ra

2DV5.BA 2.4 Kbps, Digital Data Over Voice¹

Compatible channel interface specifications are contained in BellSouth Technical Reference Publication 73548 for data/voice multiplexing equipment and BellSouth Technical Reference 73548, Addendum 1, for the DS0-B interface. These publications are available from the Information Exchange Manager, BellSouth Telecommunications, Inc., Documentations Operations, North W5A1, 3535 Colonnade Parkway, Birmingham, Alabama 35243.

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.3 Channel Interface And Network Channel Codes

A. This subsection explains the Channel Interface codes and Network Channel codes that the customer must specify when ordering Special Access (a.k.a. BellSouth SPA) service. Included is an example which explains the specific characters of the code, a glossary of Channel Interface codes, impedance levels, Network Channel codes and compatible Channel Interfaces.

Example: If the customer specifies a NT Network Channel Code and a 2DC8-3 Channel Interface at the customer's premises, the following is being requested:

- 1. NT = Metallic¹ Channel with a Predefined Technical Specification Package (1)
- 2. 2 = Number of physical wires at customer premises
- 3. DC = Facility interface for direct current or voltage
- 4. 8 = Variable impedance level
- 5. 3 = Metallic¹ facilities (DC continuity) for direct current/low frequency control signals or slow speed data (30 baud)

E7.3.1 Glossary Of Channel Interface Codes And Options

Definition	
Accepts 20 Hz ringing signal at customer's point of termination	
Accepts 20 Hz ringing signal at the customer's end user's point of termination	
Digital hierarchy interface at Digital Crossconnect System (DCS)	
E & M Signaling	
Ground Start Loop Signaling-Open End	
Ground Start Loop Signaling-Closed End	
Loop Start Loop Signaling-Open End	
Loop Start Loop Signaling-Closed End	
Transmission Only - No Signaling	
(DSO)Customer Reconfigurable Voice Grade Service ¹	(C)
DS1 to DS0 Customer Reconfigurable ¹	- 1
DS1 to DS0 ¹	(C)
DS1 to DS1 Customer Reconfigurable	
DS1 to DS1	
Resistive Type: Split Path Operation for Data Polling Conference Type	
Resistive Type: Split Path Operation for Symmetrical Voice Conference Type	
CO Bridging: Broadcast for Broadcast Conference Type	
Centrex Type Services Tie Trunk Termination	
Data stream in VF frequency band at customer's end user's point of termination	
Data stream in VF frequency band at customer's point of termination	
VF for TG1 and TG2	
VF for 43 Telegraph ¹ Carrier type signals, TG1 and TG2	(C)
	Accepts 20 Hz ringing signal at customer's point of termination Accepts 20 Hz ringing signal at the customer's end user's point of termination Digital hierarchy interface at Digital Crossconnect System (DCS) E & M Signaling Ground Start Loop Signaling-Open End Ground Start Loop Signaling-Closed End Loop Start Loop Signaling-Closed End Loop Start Loop Signaling-Closed End Transmission Only - No Signaling (DSO)Customer Reconfigurable Voice Grade Service ¹ DS1 to DS0 Customer Reconfigurable ¹ DS1 to DS1 Customer Reconfigurable DS1 to DS1 Resistive Type: Split Path Operation for Data Polling Conference Type Resistive Type: Split Path Operation for Symmetrical Voice Conference Type CO Bridging: Broadcast for Broadcast Conference Type Centrex Type Services Tie Trunk Termination Data stream in VF frequency band at customer's point of termination VF for TG1 and TG2

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.3 Channel Interface And Network Channel Codes (Cont'd)

E7.3.1 Glossary Of Channel Interface Codes And Options (Cont'd)

DC -

Direct current or voltage

Monitoring interface with series RC combination
(McCulloh format)

Company energized alarm channel

Metallic facilities (DC continuity) for direct current/low

frequency control signals or slow speed data (30 baud)

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Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.3 Channel Interface And Network Channel Codes (Cont'd)

after June 30, 2024.

E7.3.1 Glossary Of Channel Interface Codes And Options (Cont'd)

Code - Option	Definition	
- 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	
- 19(S)	19.2 Kbps ^{1, 2}	(Ç)
- 24(S)	2.4 Kbps ^{1, 2}	
- 48(S)	4.8 Kbps ^{1, 2}	
- 56(S)	56.0 Kbps ^{1, 2}	
- 64(S)	64.0 Kbps^2	
- 96(S)	9.6 Kbps ^{1, 2}	
- 1KN	DS1 (1.544 Mbps) ANSI Extended Superframe (ESF) Format per	(Ċ)
	TR-NPL-000054 without line power	
- 1SN	DS1 (1.544 Mbps) ANSI Extended Superframe (ESF) Format per	
	TR-NPL-000054, with B8ZS Clear Channel Capability and without line power	
- A	DS1 (1.544 Mbps) free-framing format per PUB 41451 with line power (only	
	available to U. S. Govt. agencies)	
- AN	DS1 (1.544 Mbps) free-framing format per PUB 41451 without line power	
	(only available to U. S. Govt. agencies)	
- BN	DS1 (1.544 Mbps) Superframe (SF) Format per TR-NPL-000054 without line	
	power	
- DN	DS1 (1.544 Mbps) Superframe (SF) Format per TR-NPL-000054, with B8ZS	
	Clear Channel Capability and without line power.	
- SN	1.544 Mbps (DS1) "ANSI" Extended Superframe (ESF) format and B8ZS	
	Clear Channel Capability	
DV -	Data Over Voice Multiplexing ²	(C)
- BC	Digital Data ²	(C)
DX -	Duplex signaling interface at customer's point of termination	
DY -	Duplex signaling interface at customer's end user's point of termination.	
Note 1:	(S) is an additional BellSouth designation for use when the optional Secondary Channel feature	
	is required.	
Note 2:	Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates	(N)

until the service is discontinued. The Company currently plans to discontinue this service on or

E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.3 Channel Interface And Network Channel Codes (Cont'd)

E7.3.1 Glossary Of Channel Interface Codes And Options (Cont'd)

Code - Option	Definition	
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	
TF -	Telephotograph ¹ interface	(C)
TT -	Telegraph¹/teletypewriter interface at either customer POT or customer's end user POT	(C)
- 2	20.0 milliamperes	
TT - 3	3.0 milliamperes	
- 6	62.5 milliamperes	
	(DELETED)	
	(DELETED)	

E7.3.2 Impedance

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

Value (ohms)	Code(s)
110	0
150	1
600	2
900	3
135	5
75	6
124	7
Variable	8
100	9

E7.3.3 Digital Hierarchy Channel Interface Codes (4DS)

Customers selecting the channelized four-wire DS-1 or higher facility interface option at the customer designated premises will be requested to provide subsequent system and channel assignment data. The various digital bit rates in the digital hierarchy employ the channel interface code 4DS9, 4DS0 or 4DS6 plus the speed options indicated following:

Interface Code	Nominal Bit	Digital
and Speed Option	Rate (Mbps)	Hierarchy Level
4DS9-15	1.544	DS1
4DS9-31	3.152	DS1C
4DS0-63	6.312	DS2
4DS6-44	44.736	DS3

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.4 Rate Regulations

This subsection contains the specific regulations governing the rates and charges that apply for Special Access (a.k.a. BellSouth SPA) service.

E7.4.1 Types Of Rates And Charges

- A. There are two types of rates and charges. These are monthly rates and nonrecurring charges. The rates and charges are described as follows:
 - 1. Monthly Rates

Monthly rates are flat recurring rates that apply each month or fraction thereof that a Special Access (a.k.a. BellSouth SPA) service is provided. For billing purposes, each month is considered to have 30 days.

Digital Data Access³ (a.k.a. BellSouth SPA DS0 Digital Data) service and Derived Data Channel³ (a.k.a. BellSouth SPA Derived Data Channel) service are offered under two contract plans. Contract plan rates are available in payment periods from twenty-four to forty-two months and in payment periods from forty-three to sixty months¹,² under conditions specified in the Channel Services Payment Plan in E2.4 of this Tariff. These payment periods are an exception to those listed in E2.4 of this Tariff. Termination Liability charges will not apply for customer requests for moves of service under CSPP subject to the provisions set forth in E2.4.9.A.11. preceding. However, a Termination Liability Charge is applicable at the date of termination if the customer terminates or disconnects the service prior to fulfilling the period of the contract plan except as specified in b. following. The Termination Liability Charge is the contracted monthly rate times the number of months in the contract plan, less the contracted monthly rate times the number of months the service has been installed, *multiplied by a factor. The factor is fifty percent (50%) for contracts that have been in effect twelve months or less, or 20 percent for contracts that have been in effect longer than twelve months.* An example is provided in a. following.

a. A customer subscribes to Digital Data Access³ (a.k.a. BellSouth SPA DS0 Digital Data) service using the twenty-four to forty-two month^{1, 2} payment plan. The contract plan period is for thirty months. The subscriber terminates the service after twelve months. The total liability charge is thirty months times the monthly rate. The amount is then reduced to reflect the number of months the subscriber has had the service, which in this example is twelve months. Therefore, the Termination Liability Charge is *fifty percent (50%) of that amount* calculated as follows:

Termination Liability Charge = .50 x [(30 months x monthly rate) - (12 months x monthly rate)]

Note 1: Effective December 25, 2013, Customers may not establish new term plans greater than 36 months for Derived Data Channel service and term plans may not be renewed for a term greater than 36 months. Effective December 25, 2013, Customers may not establish new term plans greater than 36 months for BellSouth SPA CNM - FlexServ Service and term plans may not be renewed for a term greater than 36 months.

Effective December 25, 2013, Customers may not establish new term plan greater than 36 months for High Capacity Service and term plans may not be renewed for a term greater than 36 months. Effective December 25, 2013, Customers may not establish new term plan greater than 36 months for Digital Data service and term plans may not be renewed for a term greater than 36 months.

- Note 2: Effective March 24, 2019, Customers may not establish, CSPPs for Derived Data Channel Service, BellSouth SPA CNM FlexServ Service, and Digital Data Access Service, and CSPPs may not be converted or renewed for Derived Data Channel Service, BellSouth SPA CNM FlexServ Service, Digital Data Access Service, and High Capacity Service.
- Note 3: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.4 Rate Regulations (Cont'd)

E7.4.1 Types Of Rates And Charges (Cont'd)

A. (Cont'd)

2. Nonrecurring Charges (Cont'd)

The following list identifies the individual Special Access (a.k.a. BellSouth SPA) services provided under Section E7. which are eligible for credit of nonrecurring charges under "Service Installation Guarantee" found in E2.4.10. Customers with these services are not eligible for the Service Installation Guarantee when the requested installation, move or rearrangement service order interval is four days or less as measured from the Application Date of the order.

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- Voice Grade² (a.k.a. BellSouth SPA DS0 VG),
- Wired Music,
- Digital Data Access (a.k.a. BellSouth SPA DS0 Digital Data) service^{1, 2},
- High Capacity (a.k.a. BellSouth SPA High Capacity) service
- SMARTRing service (a.k.a. BellSouth Dedicated Ring)

Provided, however, that the following services are not eligible for such credit.

- -BellSouth SPA CNM FlexServ service
- Derived Data Channel² (a.k.a. BellSouth SPA Derived Data Channel) service
- BellSouth Metro Ethernet service
- Service rearrangements
- a. Installation of Service

Nonrecurring charges apply to each service installed. When one service is ordered and installed, it is billed at the First Service Installed rate. When more than one of the same type of service, between the same locations, for the same customer is ordered and installed at the same time, one at each location is billed at the First Service Installed rate and the others are billed at the Additional Service Installed rate.

b. Installation of Optional Features and Functions

Nonrecurring charges apply for the installation of some of the optional features and functions available with Special Access (a.k.a. BellSouth SPA) service. The Initial nonrecurring charge applies if the feature or function is installed coincident with the primary service. The Subsequent nonrecurring charge applies if the feature or function is installed after the installation of the primary service.

- **Note 1:** The Data Over Voice Channel optional feature is not eligible for such credit.
- **Note 2:** Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.4 Rate Regulations (Cont'd)

E7.4.1 Types Of Rates And Charges (Cont'd)

A. (Cont'd)

2. Nonrecurring Charges (Cont'd)

First and Additional nonrecurring charges are applicable to activate each individual Central Office Channel Interface of a DS1 or DS0 Basic Channelization System¹, and are in addition to the nonrecurring charges for the DS1 or DS0 Basic Channelization System¹. A "First" Central Office Channel Interface nonrecurring charge is applicable to the first Central Office Channel Interface installed coincident with the installation of a DS1 or DS0 Basic Channelization System¹, per service request. The "Additional" nonrecurring charge applies for each additional Central Office Channel Interface, of the same type, ordered and installed at the same location, for the same customer, at the same time, on the same order request. Future requests for a Central Office Channel Interface on an existing DS1 or DS0 Basic Channelization System¹ will be treated as new requests and will require "First" and "Additional" Central Office Channel Interface nonrecurring charge application in addition to any other applicable charges.

One nonrecurring charge is applicable for each individual DS1 level Central Office or Customer Channel Interface and is in addition to any other applicable charge(s).

The nonrecurring charges for the installation of optional features and functions are set forth in E7.5 following as nonrecurring charges for optional features and functions associated with the specific services.

3. Service Rearrangements

Service rearrangements are changes to existing (installed) services which do not result in either a change in the minimum period requirements as set forth in E5.2.6 preceding or a change in the physical location of the point of the termination at a customer designated premises. Changes which result in the establishment of new minimum period obligations are treated as disconnects and starts. Changes in the physical location of the point of the termination are treated as moves and are described and charged for as set forth in E7.4.5 following. A change which results from a transfer of service is described and charged as set forth in 4. and E7.5.13 following.

The charge to the customer for the service rearrangement is dependent on whether the change is administrative only in nature or involves actual physical change to the service.

Administrative changes, identified as follows, will be made without charge(s) to the customer. Such changes require the continued provision and billing of the Access service to the same entity (i.e., customer remains responsible for all outstanding indebtedness for the Access service). Administrative changes are as follows:

- Change of customer name (i.e., the customer of record does not change but rather the customer of record changes its name -- e.g., AT&T-Long Lines to AT&T-Communications),
- Change of customer or customer's end user premises address when the change of address is not a result of a physical relocation of equipment,
- Change in billing data (name, address, or contact name or telephone number. The customer of record does not change.)

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.4 Rate Regulations (Cont'd)

E7.4.1 Types Of Rates And Charges (Cont'd)

A. (Cont'd)

- 3. Service Rearrangements (Cont'd)
 - If the change involves the addition of optional features or functions which have separate nonrecurring charges, the nonrecurring charges for the optional features or functions added will apply.
 - If the change involves changing the type of signaling on a Voice Grade² (a.k.a. BellSouth SPA DS0 VG) service, a charge equal to the Voice Grade² (a.k.a. BellSouth SPA DS0 VG) Local Channel rate element nonrecurring charge will apply. The charge will apply per service termination affected.
 - -If the change involves a customer requested change of data transmission rate for an existing Digital Data Access² (a.k.a. BellSouth SPA DS0 Digital Data) Service circuit, the appropriate nonrecurring charge shall be the Speed Change Charge provided in E7.5.5.C.6. following. This charge shall apply per local channel on each circuit where the speed change work is conducted. (Full nonrecurring charges shall apply for customer requests for changes of data transmission rate where out of service time cannot be tolerated. The customer shall specify the disconnect date for the circuit being replaced.)
 - -If the change involves changing (reconfiguring) an existing BellSouth Metro Ethernet service Connection, appropriate charges provided in E7.4.32 following apply.
 - If the change involves the addition of a DS3 Network Interface Unit (NIU) to a SMARTRing service (a.k.a. BellSouth SPA Dedicated Ring) the rates and charges shown in E13.3.25.
 - For all other changes, including a change of the customer of record involving no physical changes to the service provided or the addition of optional features without separate nonrecurring charges, a charge equal to a Local Channel rate element nonrecurring charge will apply. Only one such charge will apply per service, per change.
- Transfer of Service

When a change in billing data (e.g., name, address, contact name, or telephone number) is requested in association with a change in the customer of record, transfer of service charges, as set forth in E7.5.13 following will apply. Charges are applied on a Billing Account Number (BAN) and per circuit basis.

E7.4.2 Surcharge For Special Access (a.k.a. BellSouth SPA) Service

A. General

In addition to the rates and charges described in E7.4.1. preceding, there is a monthly surcharge that applies to Special Access Service. The Special Access Surcharge compensates the Company for use of the local exchange network when Special Access Service is connected to a PBX or equivalent device which is capable of interconnecting the Special Access Service with local exchange service.

The Company will automatically bill the surcharge on each Special Access Service installed irrespective of whether the interconnection capability exists in the customer's premises equipment or in a Centrex Type Services switch unless written certification is received from the customer certifying exemption status as set forth in B. following.

B. Special Access (a.k.a. BellSouth SPA) Surcharge Exemptions

The Special Access (a.k.a. BellSouth SPA) service will be exempted from the surcharge if the customer provides the Company written certification that the Special Access (a.k.a. BellSouth SPA) service termination is one of the following:

- 1. An open-end termination in a Company switch on an FX line, including CCSA and CCSA-equivalent ONALs; or
- 2. an analog Local Channel that is used for radio or television program transmission; or
- 3. a termination used for TELEX service; or
- 4. a termination that by the nature of its operating characteristics could not make use of Company common lines, or
- 5. a termination that interconnects either directly or indirectly to the local exchange network where the usage is subject to Carrier Common Line charges¹ such as, where the Special Access (a.k.a. BellSouth SPA) service accesses only FGA and no local exchange lines, or Special Access (a.k.a. BellSouth SPA) service between customer points of termination or Special Access (a.k.a. BellSouth SPA) service connecting CCSA or CCSA-type equipment (inter-machine trunks); or
 - **Note 1:** Available only for the transmission of audio tone protective relaying signals used in the protection of electric power systems during fault conditions.
 - Note 2: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.4 Rate Regulations (Cont'd)

E7.4.6 Mileage Measurement (Cont'd)

- When Hubs are involved, mileage rates are computed and rates applied separately for each section of the Interoffice Channel, i.e., customer designated premises serving wire center to Hub, Hub to Hub and/or Hub to customer designated premises serving wire center. However, when any service is routed through a hub for purposes other than customer specified bridging or channelization (e.g., the Company chooses to so route for test access purposes), rates will be applied only to the distance calculated between the serving wire centers associated with the customer designated premises. For the purpose of applying multipoint charges, the bridging or hubbing locations are determined by that combination of airline distances connecting the serving wire center which will produce the lowest interoffice mileage charges.
- SMARTRing® service (a.k.a. BellSouth Dedicated Ring) Local Channel, Alternate Central Office Channel and Internodal Channel rates are also distance sensitive. They are measured per quarter airline mile or fraction thereof from the customer's designated premises to the Serving Wire Center, Alternate Central Office, or other Customer Nodes. V&H coordinates are derived for each customer location through the use of longitude and latitude measurements. Using the V&H coordinate method as set forth in the NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF FCC. No. 4, compute the mileage, convert to quarter miles, and multiply the appropriate per quarter mile rate by the distance involved. Any portion of a quarter mile will always round up to the next quarter mile before determining the mileage and applying the rate.
- The SMARTRing® service (a.k.a. BellSouth Dedicated Ring) Interoffice Channel mileage is calculated per quarter airline mile between two directly connected central office's on the ring. Interoffice Channel mileage is computed by using the V&H coordinates method as set forth in the NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF FCC. No. 4. To determine the rate to be billed, multiply the appropriate per quarter mile rate by the distance involved. Fractions of a quarter mile always round up to the next quarter mile before determining the mileage and applying the rate.

E7.4.7 Facility Hubs

A customer has the option of ordering voice grade¹ (a.k.a. BellSouth SPA DS0 VG) or digital high capacity (a.k.a. BellSouth SPA High Capacity) facilities (i.e., DS1, DS1C, DS2 or DS3) to a facility Hub for channelizing to individual services requiring lower capacity facilities (e.g., Voice¹ (a.k.a. BellSouth SPA DS0 VG), etc.).

Different locations may be designated as Hubs for different facility capacities, e.g., channelization from digital to digital may occur at one location while channelization from digital to analog may occur at a different location. When ordering, the customer will specify the desired channelization Hub(s) selected from the National Exchange Carrier Association Tariff F.C.C. No. 4. This tariff identifies the type(s) of channelization functions which are available and the serving wire centers at which they are available.

Some of the types of channelization available include the following:

- from higher to lower bit rate
- from digital to voice frequency channels

End to end services may be provided on channels of these facilities to a hub. The transmission performance for the end to end sevice provided between customer designated premises will be that of the lower capacity or bit rate. For example, when a 1.544 Mbps facility is channelized to voice frequency channels, the transmission performance of the channelized services will be Voice Grade¹ (a.k.a. BellSouth SPA DS0 VG), not High Capacity (a.k.a. BellSouth SPA High Capacity)

The Company will commence billing the monthly rate for the facility to the Hub on the date specified by the customer on the service order. Individual services utilizing these facilities may be installed coincident with the installation of the facility to the Hub or may be ordered and/or installed at a later date, at the option of the customer. The customer will be billed for a Voice Grade¹ (a.k.a. BellSouth SPA DS0 VG) or digital Local Channel, Interoffice Channel, if applicable and the Basic Channelization System at the time the facility is installed. DS1 (a.k.a. BellSouth SPA DS1) and DS01 (a.k.a. BellSouth SPA DS0 Digital Data) Basic Channelization Systems require a Central Office Channel Interface for activation of each lesser capacity channel. DS3 (a.k.a. BellSouth SPA DS3) to DS1 (a.k.a. BellSouth SPA DS1) channelization arrangements, for transport of intrastate DS1 (a.k.a. BellSouth SPA DS1) service high capacity channels via LightGate® services (a.k.a. BellSouth SPA Point to Point Network) and SMARTRing® services (a.k.a. BellSouth SPA Dedicated Ring), require a DS1 channel interface for activation of each DS1 channel. Individual service rates (by service type) will apply for a Local Channel, additional Interoffice Channel and Central Office Channel Interface(s) (as required), if applicable, for each channelized service. These will be billed to the customer as each individual service is installed.

Cascading channelization occurs when a high capacity analog or digital channel is channelized to provide channels with a lesser capacity and one of the lesser capacity channels is further channelized.

Note 1:Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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Material previously appearing on this page now appears on page(s) 32.1 of this section.

E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.4 Rate Regulations (Cont'd)

E7.4.7 Facility Hubs

When cascading channelization is performed, whether in the same or a different Hub, a charge for the additional Basic Channelization System and Central Office Channel Interface(s) also applies. A DS1 Basic Channelization System and DDAS¹ (a.k.a. BellSouth SPA DS0 Digital Data) Central Office Channel Interface are required for high speed or low speed DDAS¹ (a.k.a. BellSouth SPA DS0 Digital Data) activations when channelized from a DS1 (1.544 Mbps) channel. A DS0 Basic Channelization System¹ and Subrate Central Office Channel Interface¹ are required for subrate activations of 2.4, 4.8 and 9.6 Kbps when channelized from a DS0¹ (64 Kbps) channel. When cascading channelization is performed at different Hubbing locations, Interoffice Channel charges also apply between the Hubs.

E7.4.8 Shared Use Analog And Digital High Capacity (a.k.a. BellSouth SPA High Capacity) Services

Shared use occurs when Special Access (a.k.a. BellSouth SPA) service and BellSouth SWA service are provided over the same High Capacity (a.k.a. BellSouth SPA High Capacity) facility through a common interface. When the customer orders Special Access (a.k.a. BellSouth SPA) service, the facility will be rated as Special Access (a.k.a. BellSouth SPA) service (i.e., Local Channel, or Virtual Collocation Cross-Connect Interoffice Channel as appropriate, and Basic Channelization System, if applicable) until such time as the customer chooses to use a portion of the available capacity for providing BellSouth SWA service. As each individual channel is activated for BellSouth SWA service the Special Access (a.k.a. BellSouth SPA) Local Channel rates, and Interoffice Channel rates will be reduced accordingly (e.g., 1/24th for a DS1 service, etc.). The customer must place an order for each individual BellSouth SWA service Channel utilizing the Shared Use Facilities and specify the channel assignment for each such service. BellSouth SWA service rates and charges as set forth in E6.8 will apply for each channel of the shared use facility that is used to provide BellSouth SWA service. Where Special Access (a.k.a. BellSouth SPA) service is provided utilizing a channel of the shared use facility to the hub, High Capacity (a.k.a. BellSouth SPA High Capacity) rates and charges will apply for the facility to the hub as set forth preceding and individual service rates and charges will apply from the hub to the customer designated premises. The rates and charges that will apply to the portion from the hub to the customer designated premises will be dependent on the specific type of Special Access (a.k.a. BellSouth SPA) service that is provided (e.g., Voice Grade¹ (a.k.a. BellSouth SPA DSO VG), etc.). The applicable rates and charges will include a Local Channel and Interoffice Channel, and appropriate channelization elements, if applicable.

Access Collocation Cross-Connects provide a means for customers to interconnect their BellSouth Shared Use and Digital High Capacity (a.k.a. BellSouth SPA High Capacity) services to Central Office Collocation arrangements within the same Central Office. Terms, conditions, and rates for Physical Access Collocation Cross-Connects and Virtual Access Collocation Cross-Connects are set forth in Section E13.

The capability exists for a customer to utilize all or part of a SMARTRing service (a.k.a. BellSouth Dedicated Ring) to transport switched access provided the SMARTRing service (a.k.a. BellSouth Dedicated Ring) channel interface transporting the BellSouth SWA service does not have *BellSouth SPA CNM* - FlexServ service capability. The customer must place an order for each individual BellSouth SWA Channel provided over Dedicated Access service Shared Use Facilities and specify the channel assignment for each such service. The switched traffic would enter and exit the SMARTRing service (a.k.a. BellSouth Dedicated Ring) at Customer and Central Office Nodes on that network. When this occurs, ratcheting of Dedicated Access rate elements (i.e. Nodes, Channel Interfaces, Local Channels, Alternate Central Office Channels, Internodal Channels, or Interoffice Channels) will be based on the number of voice grade¹ (a.k.a. BellSouth SPA DS0 VG) equivalent trunks/lines of that rate element used for BellSouth SWA access.

Reduction factors will be developed to reduce the charges on system level billing as well as the billing on individual DS1, DS3, STS-1, OC-3, and/or OC-12 Channel Interfaces. For ratcheting purposes, the system level charges include Customer Nodes, Central Office Nodes, Local Channels, Alternate Central Office Channels, Internodal Channels, and Interoffice Channels as appropriate to make up a customer's SMARTRing service (a.k.a. BellSouth Dedicated Ring). Individual OC-1, OC-3 and OC-12 Channel Interfaces used in Overlay Ring Arrangements will be ratcheted as system level charges. The system reduction factor will apply to the system level charges.

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.4 Rate Regulations (Cont'd)

E7.4.8 Shared Use Analog And Digital High Capacity (a.k.a. BellSouth SPA High Capacity) Services (Cont'd)

The system reduction factor will be derived by dividing the number of activated BellSouth SWA access circuits by the voice grade¹ (a.k.a. BellSouth SPA DS0 VG) channel equivalent capacity of the self-healing ring. An OC-1 SMARTRing service (a.k.a. BellSouth Dedicated Ring) has 672 voice grade¹ (a.k.a. BellSouth SPA DS0 VG) equivalent channels. An OC-3 SMARTRing service (a.k.a. BellSouth Dedicated Ring) has 2,016 voice grade¹ (a.k.a. BellSouth SPA DS0 VG) equivalent channels. An OC-3+ or OC-12 SMARTRing service (a.k.a. BellSouth Dedicated Ring) has 8,064 voice grade¹ equivalent channels. An OC-48 SMARTRing service (a.k.a. BellSouth Dedicated Ring) or OC-48+ SMARTRing service (a.k.a. BellSouth Dedicated Ring) with 48 or less activated DS3s has 32,256 voice grade¹ (a.k.a. BellSouth SPA DS0 VG) equivalent channels. However, when an OC-48+ SMARTRing service (a.k.a. BellSouth Dedicated Ring) is used to transport BellSouth SWA service, and more than 48 equivalent DS3s are activated on the service, the factor will be based upon the actual number of activated DS3s times 672 DS0s. A factor for individual DS3 channel interfaces and 28 DS1 channel systems, will be derived by dividing the number of activated BellSouth SWA access circuits associated with the DS3 channel by the voice grade¹ (a.k.a. BellSouth SPA DS0 VG) equivalent capacity of the DS3 channel. A DS3 has 672 voice grade¹ (a.k.a. BellSouth SPA DS0 VG) equivalent channels. For DS1 channel interfaces, a factor is derived by dividing the number of BellSouth SWA access circuits associated with the DS1 channel by the voice grade1 (a.k.a. BellSouth SPA DS0 VG) equivalent capacity of the DS1 channel, which is 24. Each reduction factor is rounded to four decimal places and then multiplied against the respective monthly charges to determine the reduction amount.

BellSouth SWA rates and charges as set forth in E6.8 preceding will apply for each channel of the shared use facility that is used to provide BellSouth SWA.

E7.4.9 Reserved For Future Use

E7.4.10 Reserved For Future Use

E7.4.11 Reserved For Future Use

E7.4.12 BellSouth SPA CNM - FlexServ Service

A. General

BellSouth SPA CNM - FlexServ service is an optional feature that enables the customer to monitor and reconfigure his Voice Grade (a.k.a. BellSouth SPA DS0 VG), DDAS (a.k.a. BellSouth SPA DS0 Digital Data), and High Capacity (a.k.a. BellSouth SPA High Capacity) special access (a.k.a. BellSouth SPA) services without the direct intervention of Company personnel.

1. Basic BellSouth SPA CNM - FlexServ service

Basic BellSouth SPA CNM - FlexServ service includes monitoring and reconfiguration of the customer's private line services equipped with BellSouth SPA CNM - FlexServ service.

Monitoring consists of unsolicited signals of major and minor facility alarms. These alarms include carrier group alarms, out of service alarms, bit error rate, bipolar violations, slip errors, errored seconds, out-of-frame alarms and invalid connections. Invalid connections are connections between special access services with incompatible signals or between services without *BellSouth SPA CNM* - FlexServ service. Customer requests for such connections will be denied. The Company shall not be responsible for service interruptions, troubles, loss of customer data, or any other losses resulting from attempted invalid connections.

Reconfiguration provides the customer with the ability to direct the Company to connect or disconnect circuits equipped with **BellSouth SPA CNM** - FlexServ service options to or from each others of like kind at a central office or central offices where the customer has purchased **BellSouth SPA CNM** - FlexServ service Such connections and disconnections may be performed immediately or at a future time prescribed by the customer and are performed without direct interaction by Company personnel.

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.4 Rate Regulations (Cont'd)

E7.4.12 BellSouth SPA CNM - FlexServ Service (Cont'd)

- B. Application of Rates (Cont'd)
 - 2. BellSouth SPA CNM FlexServ service Options (Cont'd)
 - d. Multipoint Bridging

Multipoint Bridging (DMB)

There will be a nonrecurring charge and a monthly recurring rate for each DS0 bridging leg that is equipped with this capability.

Multipoint Junction Unit

A nonrecurring charge and a monthly rate apply for each DS0 or equivalent that is equipped with this capability. This option must be purchased in groups of five because a unit has the capacity of five DS0 or equivalent channel connections.

e. Subrate Reconfiguration

There will be a nonrecurring charge for each DS0 equipped DS0B and a nonrecurring charge and a monthly rate will apply for each set of DS0As. The DS0A rates apply in sets of five for 9.6 Kbps, in sets of ten for 4.8 Kbps, and in sets of twenty for 2.4 Kbps.

f. Reconfigurations by the Company Personnel

A nonrecurring charge is applicable on each occasion, when the customer requests Company personnel to perform a reconfiguration or a series of reconfigurations in order to set up point-to-point or multipoint connections, to provide a status report or to establish a conference.

3. Contract Plans

Contract rates for *BellSouth SPA CNM* - FlexServ service are available in E7.5.16 under conditions specified in the Channel Services Payment Plan in E2.4 of this Tariff.

Termination Liability is applicable at the date of termination. The applicable charge will be the remaining amount due, multiplied by a factor. The factor is fifty percent (50%) for contracts that have been in effect twelve months or less, or 20 percent for contracts that have been in effect longer than twelve months. Termination Liability will not apply for customer requests for moves of service under CSPP subject to the provisions set forth in E2.4.9.A.11 preceding.

E7.4.13 Derived Data Channel¹ (a.k.a. BellSouth SPA Derived Data Channel) Service (DDCS)

A. Application of Rates

The derived data channel (a.k.a. BellSouth SPA Derived Data Channel) charges provide the central office data/voice multiplexing capability. The customer must also subscribe to a compatible two-wire local exchange line (e.g., business exchange line, ESSX service main station line). This two-wire exchange line and its associated rates and charges are in addition to the derived data channel rates and charges.

The DS0-B interface charge is applicable for each group of a maximum of twenty multiplexed derived data channels. Each of the twenty channels in a DS0-B interface channel group operates at a bit rate of 2.4 Kbps. The interoffice channel is required when the customer's serving wire center and the serving wire center of the customer's terminating premises are not the same.

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.5 Rates And Charges (Cont'd)

E7.5.3 Voice Grade² (a.k.a. BellSouth SPA DS0 VG) Service

- A. Local Channel
 - 1. Per Point of Termination
 - a. Voice Grade (a.k.a. BellSouth SPA DS0 VG)
 - (1) Voice

				Nonrecurring Charge				
				First	Additional			
			Monthly	Service	Service			
			Rate	Installed	Installed	USOC		
	(a)	Two-Wire	\$42.00	\$294.00	\$126.00	T6E2X		
	(b)	Four-Wire	66.00	306.00	132.00	T6E4X		
(2)	Data	L						
	(a)	Two-Wire	48.00	330.00	144.00	T6E2X		
	(b)	Four-Wire	72.00	336.00	156.00	T6E4X		
(3)	Loop	Facilities Not Required ¹						
	(a)	Two-Wire	14.40	156.00	86.40	EUC2N		
	(b)	Four-Wire	14.40	156.00	86.40	EUC4N		

- B. Interoffice Channel
 - 1. Mileage Bands

		Fixed	Monthly		
		Monthly	Charge	Nonrecurring	
		Charge	Per Mile	Charge	USOC
(a)	0 mile	\$ -	\$-	\$ -	1L5XX
(b)	1 thru 8 miles	42.00	2.70	115.20	1L5XX
(c)	9 thru 25 miles	42.00	2.70	115.20	1L5XX
(d)	Over 25 miles	42.00	2.70	115.20	1L5XX

Note 1: For connections to Company Centrex Type Services Switches and Equipment considered to be end-user premises.

Note 2: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.5 Rates And Charges (Cont'd)

E7.5.3 Voice Grade¹ (a.k.a. BellSouth SPA DS0 VG) Service (Cont'd)

- C. Optional Features and Functions
 - 1. Bridging
 - a. Voice Bridging
 - (1) Per port

		Monthly	Nonrecurring	
		Rate	Charge	USOC
(a) Two-	Wire	\$16.80	\$43.20	BCNV2
(b) Four-	Wire	19.20	43.20	BCNV4
b. Data Bridging				
(1) Per port				
(a) Two-	Wire	28.80	45.60	BCND2
(b) Four-	Wire	28.80	45.60	BCND4
c. Telephoto Bridgi	ıg			
(1) Per port				
(a) Two-	Wire	16.80	43.20	BCNF2
(b) Four-	Wire	19.20	43.20	BCNF4

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.5 Rates And Charges (Cont'd)

E7.5.3 Voice Grade¹ (a.k.a. BellSouth SPA DS0 VG) Service (Cont'd)

- C. Optional Features and Functions (Cont'd)
 - 2. Conditioning, Per Point of Termination

			Nonrecurring			
			Monthly	Ch	Charge	
			Rate	Initial	Subsequent	USOC
	(a) C	C-Type	\$3.60	\$21.60	\$103.20	X1CPT
	(b) I	mproved Attenuation Distortion	102.00	96.00	192.00	UHW
	(c) In	mproved Envelope Delay Distortion	144.00	96.00	192.00	UHY
	(d) S	ealing Current	1.20	44.40	115.20	1HBPT
3.	Echo Control For	Effective Two-Wire Service				
	(1) Per Poi	nt of Termination				
	(a) In	mproved Return Loss at the Two-Wire	24.00	10.80	306.00	1RL2W
	P	oint of Termination				
	(b) E	LEPL2 at the Four-Wire Point of	24.00	9.60	306.00	UHZ
	Т	Termination Termination				
4.	Customer Specifi	ed Receive Level				
	(a) P	er two-wire Point of Termination	24.00	6.00	86.40	RLS
5.	D-Conditioning					
	(a) P	er point of termination	3.60	13.20	342.00	XDCPT
6.	Telephoto Condit	•				
	(a) P	er Point of Termination	3.60	6.00	300.00	XTCPT

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.5 Rates And Charges (Cont'd)

E7.5.3 Voice Grade⁵ (a.k.a. BellSouth SPA DS0 VG) Service (Cont'd)

- C. Optional Features and Functions (Cont'd)
 - 7. Signaling Capability, per Point of Termination

			Nonrecurring				
			Monthly	Charge			
			Rate	Initial	Subsequent	USOC	
	(a)	Loop ¹	\$7.20	\$20.40	\$318.00	XSS++	
	(b)	Single Frequency	8.40	31.20	330.00	XSSSF	
	(c)	$E\&M^2$	12.00	32.40	330.00	XSS++	
	(d)	Ground ³	7.20	13.20	312.00	XSS++	
	(e)	Type C	3.60	19.20	318.00	XSSLC	
	(f)	Other ⁴	7.20	25.20	324.00	XSS++	
8.	Improved Terr	mination					
	(a)	Per Point of Termination	3.60	6.00	306.00	UGD	
9.	Simplex Reve	rsal					
	(a)	Per Point of Termination	-	6.00	126.00	UGJ	

- Note 1: In lieu of ++ substitute LO or LS as appropriate.
- Note 2: In lieu of ++ substitute EA, EB, EC or CT as appropriate.
- Note 3: In lieu of ++ substitute GO or GS as appropriate.
- Note 4: In lieu of ++ substitute LA, LB, LR, RV, DX, DY, EX, AB or AC as appropriate.
- Note 5: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.5 Rates And Charges (Cont'd)

E7.5.3 Voice Grade² (a.k.a. BellSouth SPA DS0 VG) Service (Cont'd)

- C. Optional Features and Functions (Cont'd)
- D. WATS Access Line² (a.k.a. BellSouth SPA WATS Line)
 The following apply to a WATS Access Line (a.k.a. BellSouth SPA WATS Line) used for interLATA only calling. Rates for

all other WATS Access Lines (i.e., combined interLATA/intraLATA calling) are found in the Company's General Subscriber Services Tariff, Section A19.

- 1. Two-Wire/Four-Wire WATS Access Line (a.k.a. BellSouth SPA WATS Line)
 - a. Local Channels
 - (1) Per Point of Termination

		Nonrecurring Charge				
			First	Additional		
		Monthly	Service	Service		
		Rate	Installed	Installed	USOC	
(a)	Per Two-Wire Line	\$42.00	\$294.00	\$126.00	X2W	
(b)	Per Two-Wire Line ¹	42.00	294.00	126.00	X2L	
(c)	Per Four-Wire Line	6600	306.00	132.00	X4W	
(d)	Per Four-Wire Line ¹	66.00	306.00	132.00	X4L	

Nonrocurring Charge

- Note 1: For use with Direct Inward Dial (DID) or DID/DOD Access (a.k.a. BellSouth SPA) service with BellSouth SWA Basic Serving Arrangement for use with WATS Access Lines (a.k.a. BellSouth SPA WATS Line) described in E6.3.5.A. and provided in E6.8.3.F. of this Tariff.
- Note 2: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

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E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.5 Rates and Charges

E7.5.5 Digital Data Access³ (a.k.a. BellSouth SPA DS0 Digital Data) service

A. Local Channel

1. Per Point of Termination

			Nonrecurrin	g Charge	Month to	24 to 42	43 to 60	
			First	Add'l	Month	Months ^{1, 2}	Months ^{1, 2}	USOC
	(a)	2.4 Kbps	\$420.00	\$138.00	\$55.00	\$49.00	\$47.00	T6ECS
	(b)	4.8 Kbps	420.00	138.00	55.00	49.00	47.00	T6ECS
	(c)	9.6 Kbps	420.00	138.00	55.00	49.00	47.00	T6ECS
	(d)	19.2 Kbps	420.00	138.00	55.00	49.00	47.00	T6ECS
	(e)	56.0 Kbps	420.00	138.00	75.00	65.00	60.00	T6ECS
	(f)	64.0 Kbps	420.00	138.00	75.00	65.00	60.00	T6ECS
2.	Hub Termination	on, per Local Channel						
	(a)	2.4 Kbps	60.00	51.00	10.00	9.75	9.50	TUTA4
	(b)	4.8 Kbps	60.00	51.00	10.00	9.75	9.50	TUTB4
	(c)	9.6 Kbps	60.00	51.00	10.00	9.75	9.50	TUTC4
	(d)	19.2 Kbps	60.00	51.00	10.00	9.75	9.50	TUTE4
	(e)	56.0 Kbps	60.00	51.00	30.00	28.00	26.00	TUTD4
	(f)	64.0 Kbps	60.00	51.00	30.00	28.00	26.00	TUTF4

B. Interoffice Channel

1. 2.4 Kbps

Mileage Bands

			Fixed	Monthly		
			Monthly	Charge	Nonrecurring	
			Charge	Per Mile	Charge	USOC
	(a)	0 mile	<u>\$</u> -	\$-	\$-	1L5XX
	(b)	1 thru 8 miles	20.00	2.05	68.00	1L5XX
	(c)	9 thru 25 miles	20.00	2.00	68.00	1L5XX
	(d)	Over 25 miles	20.00	1.95	68.00	1L5XX
2.	4.8 Kbps					
	Mileage Band	ls				
	(a)	0 mile	-	-	-	1L5XX
	(b)	1 thru 8 miles	20.00	2.05	68.00	1L5XX
	(c)	9 thru 25 miles	20.00	2.00	68.00	1L5XX
	(d)	Over 25 miles	20.00	1.95	68.00	1L5XX
3.	9.6 Kbps					
	Mileage Band	ls				
	(a)	0 mile	-	-	-	1L5XX
	(b)	1 thru 8 miles	20.00	2.05	68.00	1L5XX
	(c)	9 thru 25 miles	20.00	2.00	68.00	1L5XX
	(d)	Over 25 miles	20.00	1.95	68.00	1L5XX

- **Note 1:** Effective December 25, 2013, customers may not establish new term plans greater than 36 months for Digital Data Access and term plans may not be renewed or extended for a term greater than 36 months.
- **Note 2:** Effective March 24, 2019, Customers may not establish CSPPs for Digital Data Access Service, and CSPPs may not be converted or renewed for Digital Data Access Service.
- **Note 3:** Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.5 Rates and Charges (Cont'd)

E7.5.5 Digital Data Access¹ (a.k.a. BellSouth SPA DS0 Digital Data) Service (Cont'd)

- **B.** Interoffice Channel (Cont'd)
 - 4. 19.2 Kbps

Mileage Bands

	(a)	0 miles	Fixed Monthly Charge \$-	Monthly Charge Per Mile \$-	Nonrecurring Charge \$-	USOC 1L5XX
		1 thru 8 miles	20.00	2.05	68.00	1L5XX
	(b)					
	(c)	9 thru 25 miles	20.00	2.00	68.00	1L5XX
	(d)	Over 25 miles	20.00	1.95	68.00	1L5XX
5.	56 Kbps					
	Mileage Band	ls				
	(a)	0 Miles	\$-	-	-	1L5XX
	(b)	1 thru 8 miles	40.00	4.10	68.00	1L5XX

Note 1: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.



E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.5 Rates and Charges (Cont'd)

E7.5.5 Digital Data Access² (a.k.a. BellSouth SPA DS0 Digital Data) Service (Cont'd)

- B. Interoffice Channel (Cont'd)
 - 5. 56 Kbps (Cont'd)

6.	(c) (d) 64 Kbps	9 thru 25 miles Over 25 miles		Fixed Monthly Charge \$40.00 40.00	Mont Char Per M \$4.	ge Nonred Iile C	curring Charge \$68.00 68.00	USOC 1L5XX 1L5XX
0.	Mileage Band	ls.						
7.	(a) (b) (c) (d)	0 miles 1 thru 8 miles 9 thru 25 miles Over 25 miles: 19.2 Kbps (Contract Rates)		40.00 40.00 40.00	4	- .10 .00 .90	68.00 68.00 68.00	1L5XX 1L5XX 1L5XX 1L5XX
	Mileage Band	- · · · · · · · · · · · · · · · · · · ·		Fixe			Mile	
			Nonrecurring Charge	24 to 42 ¹	43 to 60 ¹	24 to 42 ¹	43 to 60 ¹	*****
	(-)	0 miles	Per Channel \$-	Months \$-	Months \$-	Months \$-	Months \$-	USOC 1L5XX
	(a) (b)	1 thru 8 miles	ъ- 68.00	ֆ- 19.95	ր- 19.85	ֆ- 1.90	ֆ- 1.75	1L5XX 1L5XX
	(b) (c)	9 thru 25 miles	68.00	19.95	19.85	1.85	1.70	1L5XX
	(d)	Over 25 miles	68.00	19.95	19.85	1.80	1.65	1L5XX
8.	(-)	bps (Contract Rates)						
	Mileage Band							
	(a) (b)	0 miles 1 thru 8 miles	- 68.00	36.00	34.00	3.80	3.50	1L5XX 1L5XX
	(c)	9 thru 25 miles	68.00	36.00	34.00	3.70	3.40	1L5XX
	(d)	Over 25 miles	68.00	36.00	34.00	3.60	3.30	1L5XX

- **Note 1:** Effective March 24, 2019, Customers may not establish CSPPs for Digital Data Access Service, and CSPPs may not be converted or renewed for Digital Data Access Service.
- **Note 2:** Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

(N)

E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.5 Rates And Charges (Cont'd)

E7.5.5 Digital Data Access⁵ (a.k.a. BellSouth SPA DS0 Digital Data) Service (Cont'd)

- C. Optional Features and Functions
 - 1. Bridging^{1,2}

			Month	24 to	43 to		
		Nonrecurring	to	424	60^{4}		(C)
		Charge	Month	Months	Months	USOC	
(a)	Per port (2.4, 4.8, 9.6, 19.2, 56.0	\$27.00	\$25.00	\$24.00	\$22.00	BCNDA	
	Kbps)						

 Digital Data Secondary Channel Capability, per Local Channel^{1,2}

(a)

Nonrecurring	Month	24 to	43 to		
Charge	to	42^{4}	60^{4}		(C)
Initial Subsequent	Month	Months	Months	USOC	
\$- \$160.00	\$15.00	\$14.00	\$13.00	SFS	

(C)

(C)

(C)

(C)

(N)

- 3. (DELETED)
- 4. (DELETED)
- 5. (DELETED)

6.	Speed	Change	Charge.	per	Local	Channel ³

Each

		Nonrecurring Charge	
		First Additional	USOC
(a)	Each	\$330.00 \$170.00	SCH

- **Note 1:** This option is not available with 64.0 Kbps.
- **Note 2:** Not available at all service locations.
- **Note 3:** Speed Change Charge is applicable where circuit out of service time during speed change activity is acceptable to customer.
- **Note 4:** Effective March 24, 2019, Customers may not establish CSPPs for Digital Data Access Service, and CSPPs may not be converted or renewed for Digital Data Access Service.
- Note 5: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.5 Rates And Charges (Cont'd)

E7.5.6 High Capacity (a.k.a. BellSouth SPA High Capacity) Service (Cont'd)

- C. Optional Features and Functions
 - 1. Channelization
 - a. DS3 Channelization
 - (1) DS3 to DS1

			Rate	1,0	Charge	USOC	
b.	(a) Per arrangement ¹ DS2 Channelization		\$-		\$-	MXB++	
	(1) DS2 to DS1						
c.	(a) Per arrangement ¹ DS1C Channelization		-		-	MXD++	
	(1) DS1C to DS1						
d.	(a) Per arrangement ¹ DS1 Channelization		-		-	MXH++	
	(1) DS1 Basic Channelization System (DS1 to VG/DS0)						
	(a) Per system	Rate Zone 1 \$210.00	Monthly Rate Rate Zone 2 \$210.00	Rate Zone 3 \$210.00	Nonrecurring Charge \$145.00	USOC MQ1	
e.	DS0 Channelization (DS0 to Subrate) ²						(C)
	(1) DS0 Basic Channelization System (Per System)						
			Monthly Rate		recurring Charge	USOC	
	(a) Maximum of 20 2.4 kbps services		\$120.00		145.00	QSU24	
	(b) Maximum of 10 4.8 kbps services(c) Maximum of 5 9.6 kbps services		120.00 120.00		145.00 145.00	QSU48 QSU96	
	(c) Maximum of 5 7.0 Rops services					2	

Monthly

Nonrecurring

Note 1: ICB rates and charges apply.

Note 2: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

Month

E7.5 Rates And Charges (Cont'd)

E7.5.6 High Capacity (a.k.a. BellSouth SPA High Capacity) Service (Cont'd)

- C. Optional Features and Functions (Cont'd)
 - 2. Channel Interfaces (Per Interface)
 - a. Sub-DS3 Interfaces
 - (1) DS1 Level Central Office Channel Interface¹

	(2)	 (a) Asynchronous (b) Synchronous DS1 Level Customer Channel Interfact (a) Asynchronous (b) Synchronous 	to Month \$12.00 36.00 ee ¹ 17.00 45.00	48 Months ² \$8.00 31.00	72 Months ² \$7.00 28.00	96 Months ² \$6.00 25.00	Nonrecurring Charge \$155.00 135.00 295.00 245.00	USOC 1D3CA 1D3CS 1D3DA 1D3DS	
b.		-DS1							
	(1)	VG/DS0 Level Central Office Channe	l Interface	Monthly Rate		First	rring Charge Additional	USOC	
		(a) BellSouth SWA(b) Reserved for Future Use(c) Reserved for Future Use		\$0.00		\$0.00	\$0.00	1D1SW	
		(d) Voice Grade ³ (a.k.a. BellSouth SPA DSO VG) ¹		7.75		7.00	6.00	1D1VG	(C)
		(e) WATS Access Line ³ (a.k.a. BellSouth SPA WATS Line) ¹ (f) Reserved for Future Use (g) Reserved for Future Use		7.75		7.00	6.00	1D1WT	(C)
c.	Sub	(h) DDAS ³ (a.k.a. BellSouth SPA DSO Digital Data) -DSO Interface ³		13.00		7.00	6.00	1D1DD	(C)
	(1)	Subrate Central Office Channel Interfa	ace						. ,
		(a) Subrate (2.4, 4.8, & 9.6 Kbps)		13.00		7.00	6.00	1DOSR	

24 to

49 to

73 to

(N)

(N)

Note 1: Contract rates are flexible to allow customer choice of payment period per E2.4.9.

Note 2: Effective March 24, 2019 Customers may not convert or renew CSPPs for High Capacity Service.

Note 3: Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.5 Rates and Charges (Cont'd)

E7.5.14 (DELETED) (Cont'd)

E7.5.15 Derived Data Channel³ (a.k.a. BellSouth SPA Derived Data Channel) Service

- A. Local Channel
 - 1. Derived Data Channel (a.k.a. BellSouth SPA Derived Data Channel)

			Mo	onth 24 to	43 to	
		Nonrecurri	ing t	o 42	60	
		Charge	Month	Months ^{1, 2}	Months ^{1, 2}	USOC
(a)	Per channel at 2.4 Kbps	\$460.00	\$17.	.00 \$13.50	\$11.00	DAXPC

- **Note 1:** Effective December 25, 2013, Customers may not establish new term plan greater than 36 months for Derived Data Channel service and term plans may not be renewed for a term greater than 36 months.
- **Note 2:** Effective March 24, 2019, Customers may not establish CSPPs for Derived Data Channel Service, and CSPPs may not be converted or renewed for Derived Data Channel Service.
- **Note 3:** Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.

E7. SPECIAL ACCESS (A.K.A. BELLSOUTH SPA) SERVICE

E7.5 Rates and Charges (Cont'd)

E7.5.15 Derived Data Channel³ (a.k.a. BellSouth SPA Derived Data Channel) Service (Cont'd)

- **A.** Local Channel (Cont'd)
 - 2. DS0-B Interface

В.	Inter	(a)	Per group of twenty channels at 2.4 Kbps each	N	Nonrecurring Charge \$335.00	Month to Month \$80.00	24 to 42 Months ¹ \$75.00	43 to 60 Months ¹ \$72.00	USOC DAXP1
	1.	Per group of tw	venty channels at 2.4 Kbps each						
E7.5.	16 <i>Be</i>	(a) (b)	Fixed Per mile CNM - FlexServ Service		95.00	25.00 2.05	23.00 1.90	22.00 1.75	DAXPF DAXPM
A.	Basi	c BellSouth SP	A CNM - FlexServ service						
	 2. 	(a) (b) DS1 Channel C	Voice Grade Type, per DS0 channel Digital Type, per DS0 channel	Nonrecurri Charge \$35.00 35.00	Month ng To Month \$14.90 7.60	48	49 to 72 s Months \$12.70 6.45	73 to 96 Months \$11.90 6.00	USOC DSLVA DSLDA
		(a) (b) (c)	DS0 Switching, per DS1 channel DS1 Switching, per DS1 channel Surveillance - DS1 Level per DS1 channel	125.00 125.00 125.00	110.00 64.00 64.00	100.00 60.00 60.00	92.00 55.00 55.00	85.00 51.00 51.00	DSL1A DSL1B DSL1S
	3.	DS3 Channel C	Connections						
		(a)	Surveillance - DS1 Level, per DS3	125.00	375.00	345.00	320.00	300.00	DSL3S
		(b)	channel Surveillance - DS3 Level, per DS3 channel	125.00	150.00	138.00	128.00	120.00	DSL3T
В.			1 - FlexServ service Options						
	1.	Multipoint Brid (a)	dging Voice Grade Connections, per bridging leg	20.00	5.00	4.50	4.35	4.10	FSSFM
		(b)	Multipoint Junction Unit, per 2.4, 4.8, 9.6 or 56 Kbps channel (must purchase in units of 5)	15.00	6.00	5.25	5.00	4.75	FSSFJ
		(c)	Multipoint Junction Unit, per 19.2 Kbps channel (must purchase in units of 5)	15.00	11.75	11.10	10.50	9.95	FSSF9

- **Note 1:** Effective December 25, 2013, Customers may not establish new term plans greater than 36 months for Derived Data Channel service and term plans may not be renewed for a term greater than 36 months.
- Note 2: Effective December 25, 2013, Customers may not establish new term plans greater than 36 months for BellSouth SPA CNM FlexServ Service and term plans may not be renewed for a term greater than 36 months.
- **Note 3:** Effective June 30, 2021, this Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2024.