

SECTION II

NETWORK SERVICE DESCRIPTION

1. ARCHITECTURE

Service Provider Number Portability using RCF (SPNP-RCF) will allow Alternate Local Exchange Carriers (ALEC) to offer local telephone service to their customers while retaining the customers original Local Exchange Carrier (LEC) telephone number. This service is designed to allow customers to migrate from the LEC presently providing local service and vertical features to an ALEC. Directory listing would reference the customer's original telephone number as the current listing. The customers loop would terminate on Originating Equipment in the ALEC central office. Dial tone and vertical features would be provided to the customer by the ALEC switch.

To terminate a call to a ALEC customer, the customer's listed directory number is dialed by the calling party. The call is transported to the end office serving the dialed directory number. The call will be then Remote Call Forwarded (RCF) from the central office serving the dialed directory number to the appropriate Access Tandem and then to the ALEC switch serving the Forwarded To number. The call will be terminated by the ALEC to his customer directly from the ALEC switch. Reference Attachment 1 for service diagram.

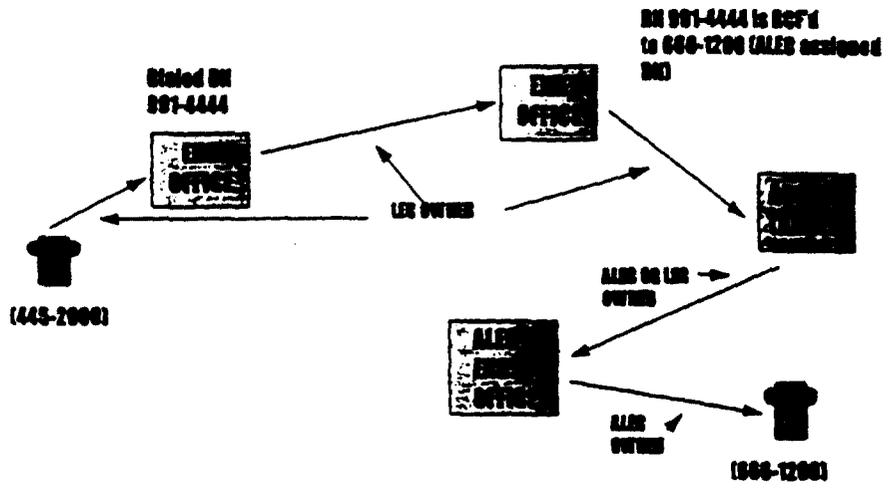
The ALEC switch will be connected to the Access Tandem or direct from a BellSouth end office using a trunk type capable of carrying called number, calling number and has provisions for recording usage. The Forwarded To number is assigned by the ALEC to their customer and resides in the ALEC switch.

SPNP-RCF will be requested by the ALEC on behalf of the ALEC customer. The ALEC will be billed for SPNP-RCF by the LEC. The SPNP-RCF feature will be provisioned on the customer's old LEC directory number. The customer's old LEC directory number will be forwarded to a new number assigned by the ALEC to the customer.

Activity summary information will be forwarded to the ALEC monthly. This report will contain a summarized statement containing a charge for the total number of SPNP-RCF features provisioned by the LEC for ALEC customers. An itemized report of SPNP-RCF activity will also be available to the ALEC. This report will contain a listing of all telephone numbers using the SPNP-RCF feature serving the ALEC customers.

ATTACHMENT 1

Service Provider Portability-RCF



Attachment 1

2. NETWORK INTERFACE DOCUMENTATION

Not Required

3. Signaling Plan

Call information containing calling number and the forwarding number will be forwarded to the ALEC using SS7 signaling. An SS7 ISUP trunk and a direct A-Link connection to the BST STP or an alternate STP will be required.

4. Numbering Plan

ALECs will have to obtain new NXX's for local services. The LEC will use the Remote Call Forwarding number to allow routing of customer calls to the ALEC switch as if it were a LEC end office.

5. Vendor Information

No special vendor equipment is required for this application.

6. ARCHITECTURE

Service Provider Number Portability using RCF will use the existing Remote Call Forwarding (RCF) feature available in the AT&T 1AESS, AT&T 5ESS, Nortel DMS-100, Nortel DMS-10, Stromberg EWSD, Nortel DMS-10 and Stromberg DCO.

7. Software Requirements

No additional software requirements. RCF service is presently available across all switch types in the region.

8. Hardware Requirements

No known additional hardware necessary for deployment. As forecast information is received from ALECs, office capacities for line, trunk and memory must be examined.

9. Network Deployment

Remote Call Forwarding is currently deployed across the region.

10. Technical Standards

BellCore Documentation:

LSSGR, TR-NWT-000505, Call Processing, Section 5.2, Call Treatments

LSSGR, TR-NWT-000506, Signaling, Section 6.1, General

LSSGR, TR-NWT-000506, Signaling, Section 6.2, Customer Line Signaling

LSSGR, TR-NWT-000506, Signaling, Section 6.3.5.2, Disconnects

LSSGR, TR-NWT-000509, Maintenance, Section 9.2, Circuit and Facility Management

LSSGR, TR-TSY-000560, FSD 01-02-0100, Individual Line

SECTION III

OPERATIONS AND CENTRAL OFFICE SYSTEMS SUPPORT

SERVICE PROVISIONING AND MAINTENANCE PLAN

1. Documents Provisioning: Provisioning of Service Provider Number Portability using RCF (SPNP-RCF) will require that a Service Order be originated by the appropriate Sales Channel representative in the Local Carrier Service Center (LCSC). The Service Order will flow to the Recent Change Memory Administration Center (RCMAC) which will provision the feature against the customer's line. The Service Order will also establish accounts in the billing systems(s) and establish records in the maintenance systems, such as LMOS (Loop Maintenance Operations System). SPNP-RCF will require new USOCs for provisioning of the service. The new USOCs are TNPRL (Residence) and TNPBL (Business).

Billing for SPNP-RCF will be a flat rate monthly charge to the ALEC. No new pages for this service will be required in the BellSouth Routing and Billing Guide.

2. Designed or Non-designed: Since SPNP-RCF is a software based service and not a facilities based service, the question of designed versus non-designed is largely irrelevant.

3. Loop Qualifications: SPNP-RCF may require provisioning of additional transport facilities (trunks) depending on the amount of ALEC traffic generated due to this service. Due to the lack of forecasts for this service, the quantity of trunks needed is still unknown.

4. Facility Inventory Responsibility: For the reasons cited in sections 2 and 3 above, loop facility inventory responsibility has no relevance.

5. Network Administration Responsibility: No changes in the Network Administration procedures will be required.

6. Test Equipment: There is no additional test equipment or procedures required for support of SPNP-RCF.

7. Provisioning: The Service Order will contain the necessary data to activate SPNP-RCF. Flow through of the Service Orders will be available when the appropriate tables and systems are updated.

8. Maintenance: Users of SPNP-RCF will report troubles to their appropriate ALEC. The ALEC will report troubles with SPNP-RCF to BST on behalf of their customer. The ALEC will report troubles to the appropriate ACAC for resolution. Trouble reports received at the ACAC will be referred to the appropriate center for testing and resolution.

Based on the trouble description and results of the trouble analysis, the (find out which center) will refer the trouble to the appropriate BST work group (e.g. RCMAC, SCC/NOC, etc.) according to standard procedures.

9. New Operations Support Systems

No new operations support systems are required in support of SPNP-RCF.

10. Service Measurements

There are currently no plans for development of service measurements for SPNP-RCF.

**11. Network Centers/Work Groups -
Staff Support Contacts**

Switch Translations	Eli Weaver (1AESS, 5ESS) Glen Doster (DMS-100) Paulette Jones (EWSD)
RCMAG	Dennis Duffy Doug Berry Mike Atcheson
EBAC/Billing	Evelyn Sasser
ICSC	Ed Welch
IMC	
CAC	George Jung
IFCPC	Bill McAllister
AFIG	Shirley Abts
Service Order Standards	Don Adamson
IT/CRIS	Barbara Foster
IT/CABS	Laura Walls

Pricing	Mario Soto
L&N/COSMOS	Charles Scarborough
CPC	Sharon Johnson

12. Training Requirements

Training of affected Network personnel will be accomplished on the job utilizing the Methods and Procedures developed for this service. No special Network training courses will be developed for SPNP-RCF.

13. Methods and Procedures Reference

Network Methods and Procedures will be developed/updated as follows:

Trunking M&P development for:

DMS-100 - Bob Warren
1AESS - Sharon Moon
SESS - James King
Stromberg Carlson EWSD - Fay Bush
Stromberg Carlson DCO - Fay Bush
DMS-10 - Bob Warren

Trouble Reporting Procedures. - J.D. Foster

Service Order Methods and Procedures - Don Adamson

Address and Facility Inventory Group (AFIG) - Shirley Abts

Local Competition Service Center (LCSC) - Ed Welch

Recent Change Memory Assistance Group - Dennis Duffy

Billing Informational Letter - Evelyn Sasser

Switch Capacity Methods and Procedures - Randy Falls

Feature Interactions - Romero Martinez

Note: All applicable M&Ps, Informational Letters and switch capacity studies are included as attachments to this document.

INTERDEPARTMENTAL SERVICE DESCRIPTION

**SERVICE PROVIDER NUMBER PORTABILITY
USING FLEXIBLE DIRECT-INWARD-DIALING**

SPNP-FLEX DID

12/14/95

**CONTACT: GARY M. ROBERT
MANAGER IP
(205) 977-7172**

CONTENTS

TAB 1	NETWORK SERVICE DESCRIPTION
TAB 2	SERVICE ORDER STANDARDS
TAB 3	RECENT CHANGE MEMORY ADMINISTRATION M&P
TAB 4	NETWORK SWITCH CAPACITY STUDY
TAB 5	SWITCH FEATURE INTERACTION
TAB 6	ADDRESS AND FACILITY INVENTORY M&P
TAB 7	EQUIPMENT BILLING AND ACCURACY CENTER M&P
TAB 8	BILLING DESIGN DOCUMENT
TAB 9	DMS-100 TRUNK TRANSLATIONS M&P
TAB 10	DMS-10 TRUNK TRANSLATIONS M&P
TAB 11	SESS TRUNK TRANSLATIONS M&P
TAB 12	SEIMENS STROMBERG CARLSON DC0 M&P
TAB 13	SEIMENS STROMBERG CARLSON EWSD M&P
TAB 14	LAESS TRUNK TRANSLATIONS M&P
TAB 15	LOCAL COMPETITIVE SERVICE CENTER M&P
TAB 16	SPNP-FLEX DID END TO END TEST PROCEDURES

SERVICE PROVIDER NUMBER PORTABILITY (SPNP)
USING FLEX DID

SECTION 1

MARKETING SERVICE DESCRIPTION

1. Service Description

This service will allow the Alternate Local Exchange Carrier (ALEC) to offer local directory number portability to their customers. This service will allow an ALEC customer to retain their original LEC directory number while subscribing to an ALEC for their local telephone service.

2. Target Market

Alternate Local Exchange Carriers requiring a method enabling their customers to retain their original LEC directory number while providing telephone service from an ALEC central office switch.

3. Deployment Strategy

This service will be deployed in all major metros and rural areas where DID is currently available.

4. Distribution Channels

This service will be available through the Local Carrier Service Center (LCSC). This service will only be available to ALECs for provisioning their customers service for local number portability.

5. Product Implementation and Delivery

This service will be implemented through the normal state implementation channels.

SECTION II

NETWORK SERVICE DESCRIPTION

A. ARCHITECTURE

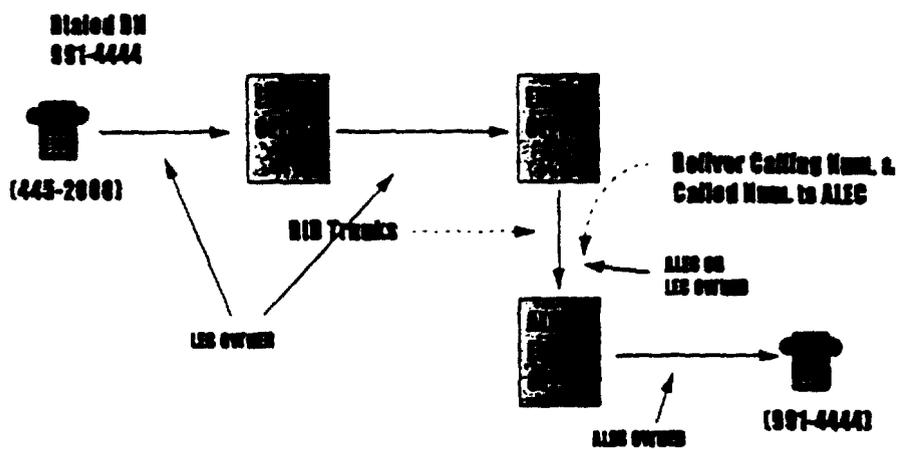
Alternate Local Exchange Carriers (ALEC) plan to market local number portability to their customers. This will allow their customers to retain their local telephone number irregardless of the physical location of their telephone set. Restrictions of wire center boundaries and geographically related NXX codes would no longer apply.

When the telephone number of a customer subscribing to this service is dialed, the call is routed to the serving switch for the dialed number, pointed to a route index in the switch and sent to the ALEC switch for handling. The call is delivered to the ALEC on Direct Inward Dial (DID) trunks. The called number is cross referenced in the ALEC switch to the true terminating number. The call will be terminated by the ALEC to the customer without reentering the LEC switching network.

The customer's original telephone number can be retained even in the event of a change of address. Cross reference information residing in the ALEC switch will route the call to the correct destination. Reference Attachment 1 for service diagram.

ATTACHMENT 1

Service Provider Portability-FLEX BID



Attachment 1

B. Signaling Plan

If the trunks are SS7 compatible, the calling party number as well as the called party number will be delivered. Direct A-link connections are required for implementation of CLASS features. These A-links would connect the ALEC to the BellSouth network by way of the BellSouth STP or through an alternate providers STP. If the trunks are MF type trunks, the called party number is delivered.

C. Numbering Plan

The existing numbering plan will be used for this service. The customer's original directory number will be rerouted to a trunk group for delivery to the ALEC central office switch.

D. Availability

Clients can be served from a 1AESS, 5ESS, DMS-100, EWSD (find out if any other switches can handle).

E. Vendor Information

No special vendor equipment is required for this application

F. Software Requirements

No additional software requirements. DID service is presently available across all switch types in the region. (check to be sure)

G. Hardware Requirements

No known additional hardware necessary for deployment. As forecast information is received from ALECs, office capabilities for line, trunks and memory must be examined.

H. Network Deployment

DID service is currently deployed across the region.

J. Technical Standards

BellCore Documentation:

LSSGR, TR-NWT-000505, Call Processing, Section 5.2, Call Treatments

LSSGR, TR-NWT-000506, Signaling, Section 6.1, General

LSSGR, TR-NWT-000506, Signaling, Section 6.2, Customer Line Signaling

LSSGR, TR-NWT-000506, Signaling, Section 6.3.5.2, Disconnects

LSSGR, TR-NWT-000509, Maintenance, Section 9.2, Circuit and Facility

Management

LSSGR, TR-TSY-000560, FSD 01-02-0100, Individual Line

LSSGR, TR-TSY-000524, FSD 04-02-0000, Direct Inward Dialing

(NEED TO INCLUDE CAPACITY INFORMATION AS RANDY GETS IT TO ME.)

SECTION III

OPERATIONS AND CENTRAL OFFICE SYSTEMS SUPPORT

SERVICE PROVISIONING AND MAINTENANCE PLAN

1. Documents Provisioning: Provisioning of the Service Provider Number Portability using Flex DID will require that a Service Order be originated by the appropriate Sales Channel representative in the Local Carrier Service Center (LCSC). The Service Order will flow to the Recent Change Memory Administration Center (RCMAC) who will provision the DID group in the appropriate central office switch. The DID trunks will be ordered through the ASR/TQ process. The Service Order will also establish accounts in the billing system(s) and establish records in the appropriate maintenance systems, such as LMOS (Loop Maintenance Operations System). SPNP-Flex DID will require new USOCs for provisioning of the service.

Billing for SPNP-Flex DID will involve a non-recurring one time charge for set up of the DID trunks and translations. There will be a monthly recurring charge trunk usage and for each number assigned to the ALEC for his customer.

2. Designed or Non-Designed: The DID trunks carrying traffic from the BST end office to the ALEC end office will be design type trunks. (Who will design and provision - George Jung?)

3. Loop Qualifications: SPNP-Flex DID will require provisioning of additional trunks from the appropriate BST end office to the ALEC end office for delivery of the DID traffic. The number of trunks will be determined by BST and the ALEC jointly.

4. Facility Inventory Responsibility: (who will be responsible?)

5. Test Equipment: There is no additional test equipment or procedures required for support of SPNP-Flex DID.

6. Network Administration Responsibility: No changes in the Network Administration procedures will be required.

7. Provisioning: The Service Order and the ASR will contain the necessary data to activate SPNP-Flex DID. Flow through of the Service Orders will be available when the appropriate tables and systems are updated.

8. Maintenance: Users of SPNP-Flex DID will report troubles to their appropriate ALEC. The ALEC will report troubles to the appropriate ACAC for resolution. Trouble reports received at the ACAC will be referred to the appropriate center for testing and resolution.

Based on the trouble resolution and results of the trouble analysis, the (find out which center) will refer the trouble to the appropriate BST work group (e.g., RCMAC, SCC/NOC, etc.) according to standard procedures.

9. New Operations Support Systems

No new operations support systems are required in support of SPNP-Flex DID.

10 Service Measurements

There are currently no plans for development of service measurements for SPNP-Flex DID.

11. Network Centers/Work Groups - Staff Support Contacts.

Switch Translations	Eli Weaver (1AESS, 5ESS) Glen Doster (DMS-100) Paulette Jones (EWSD)
RCMAG	Dennis Duffy Doug Berry Mike Atcheson
EBAC/Billing	Evelyn Sasser
ICSC	Ed Welch
IMC	
CAC	George Jung
IFCPC	Bill McAllister
AFIG	Shirley Abts
Service Order Standards	Cynthia Jordan

IT/CRIS	Barbara Foster
IT/CABS	Laura Walls
Pricing	Mario Soto Ida Lavine
L&N/COSMOS	Charles Scarborough
CPC	Sharon Johnson

12. Training Requirements

Training of affected Network personnel will be accomplished on the job utilizing the Methods and Procedures developed for this service. No special network training courses will be developed for the SPNP-Flex DID service.

13. Methods and Procedures Reference

Network Methods and Procedures will be developed/updated as follows:

RCMAC M&P development for DMS-100, SESS, EWSD, Stromberg Carlson DCO, DMS-10

_____ trouble reporting procedures.

(Add Don Adamsons and the CABS person's M&Ps for Service Orders.)

(Add AFIG notification if it is relevant.)

(Add ICSC M&Ps when received.)

(Add Mario's tariff as attachment.)

(Add Dennis Duffy's M&Ps for translations.)

Billing M&Ps

M&Ps - Switch Capacity- Randy

TAB 25

AccuPulse^R Service
Account Team Information Package

Prepared by:
William B. Jerome
March 21, 1997

**AccuPulse[®] Service
Account Team Information Package**

Contents

- 1. Service Description**
- 2. Tariff References**
- 3. Installation Intervals**
- 4. Service Inquiry and Ordering Guidelines**

AccuPulse[®] Service Account Team Information Package

1. Service Description

A. Basic Service Features

AccuPulse[®] is the BellSouth registered trade mark for Public Switched Digital Service (PSDS). AccuPulse[®] service is a transparent, circuit switched network service for the transport of customer information through end-to-end digital networks. The service operates at a basic transmission rate of 56 kilobits-per-second, with lower speeds accommodated by customer equipment. Sixty-four (64) kilobits-per-second transmission can be supported on an intra-switch basis.

BellSouth utilizes the Northern Telecom DATAPATH feature on DMS 100 and 100/200 central office switches as the service vehicle for AccuPulse[®] service. An AccuPulse[®] service remote capability provides service to customers who are served by central offices other than an AccuPulse[®] service host central office and who are located within 18 kilofeet of their serving wire center.

B. Basic Service Capabilities and Restrictions

AccuPulse[®] service provides the following:

- *Circuit switched service.*
- *Fully digital end-to-end data transport.*
- *Protocol transparency.*
- *Support for asynchronous and synchronous transmission.*
- *Improved error performance as compared to analog services.*
- *Access for intraLATA and interLATA transport within and outside the BellSouth Region.*
- *Full inter-operability with all versions of public switched digital service utilized throughout North America.*
- *Bit rate capabilities from 300 bps up to and including 56 Kbps (64 Kbps on an intra-switch basis) when communicating with another PSDS station, based on customer premises equipment capability.*

AccuPulse[®] service has the following limitations:

- *distance limitations as determined by Network via the Service Inquiry Form, maximum of 18 kilofeet.*
- *Limited to data transmission only, no voice traffic.*
- *Local loop must be unloaded*
- *Served only out of DMS 100 and DMS 100/200 central office switches.*
- *Touch Tone service required.*
- *Suspension of service is not allowed.*
- *One month minimum service period.*
- *Usage sensitive service only.*
- *No dual service is allowed.*

- Service outage credit procedures are covered in Section A-2 of the GSST.
- Regular Grouping Service (Hunting) only.
- Custom Calling Features not available with remote capability.

AccuPulse[®] service utilizes a Northern Telecom proprietary protocol, T-Link, to support data transmission. It allows end-to-end transmission at a rate of 1200 bps to 56 Kbps in a synchronous mode or 300 bps to 19.2 Kbps in an asynchronous mode. The protocol establishes data circuit parameters prior to actual data transfer and is completely transparent to the user. ISDN circuit switched data is compatible with public switched digital service provided the T-Link protocol is in place and utilized for the transmission.

AccuPulse[®] service can be configured in the following modes:

1. "Baseband" or standard service is for those customers who are within the distance limitations of the local loop transmission parameters. The maximum allowable local loop transmission loss is 32db at 80 KHz. This translates to a distance of approximately 14 Kft for satisfactory 56 Kbps transmission rates. AccuPulse[®] service is not compatible with SLC 96 Series 5 arrangements.
2. "Remote Capability" extends the AccuPulse[®] service host office capabilities to adjacent wire centers via channel bank and Subscriber Line Carrier (SLC) technology. The customer is charged for interoffice mileage between the host office and the customer's local serving office. Local loop parameters are determined between the serving office and the customer premise.
3. "4-wire" access utilizes a four-wire non-loaded facility to connect the customer premises to the AccuPulse[®] service switching equipment and is routed through approved test equipment for remote testing. This arrangement extends the loop range the circuit can be extended. This capability is tariffed in Georgia and North Carolina only.

C. How the Service Works

Each AccuPulse[®] access line is designated a telephone number. In order to send data from location A to location B, location A dials location B's designated number. Once the connection is established, the two locations can transmit data at speeds up to 56 kilobits per second. (The customer provided premise equipment determines at what bit rate the transmission occurs.)

A network call between locations A and B will be billed to location A at one rate for the initial minute and at a lower rate for any subsequent minutes. Time-of-day discounts for evening and night calls may apply. The same rates are applicable whether locations A and B are served by the same central office or by two central offices within the same local calling area. IntraLATA toll charges apply in addition if the two central offices are in different local calling areas. Once the transmission is complete, location A and/or location B may dial another AccuPulse[®] served location and place other network calls.

The AccuPulse[®] service remote capability enables customers who are served by an office other than an AccuPulse[®] service equipped office and who are located within 18 kilofeet of that office to subscribe to the service. The remote access is accomplished by using a channel on a T1 carrier to transport digital data information from the customer's serving central office back to the AccuPulse[®] service equipped central office.

D. The AccuPulse[®] service remote capability is available within the a LATA for intraexchange Foreign Central Office, Interexchange within a single Revenue Accounting Office (RAO), and Interexchange crossing RAO boundaries.

E. Feature Interaction

Touch Tone service required for 2-wire service signaling.
Custom Calling features not available with remote capability.

2. Tariff References

AccuPulse[®] 2-wire service is tarified in all nine states within the BellSouth region. The AccuPulse[®] tariff is found in Section A-29 of the General Subscriber Tariff (GSST).
AccuPulse[®] 4-wire service is tarified only in North Carolina and Georgia (GSST, Section A-29).

3. Installation Intervals

Normal Installation Intervals: YES _____ NO X

Project Coordination Required: YES _____ NO X

4. Service Inquiry and Ordering Guidelines

The ICS Account Team will serve as the single point of contact for the resale of AccuPulse[®] Service.

The CLEC should provide the following forms: AccuPulse[®] Service Resale Service Request, End User Information, and Local Service Request Forms. Upon receipt the ICS Account Team should initiate a service inquiry and determine mileage calculations when required.

The following documents are also attached:

Service Inquiry form and line by line instructions

Service Order Standards:

1. AccuPulse[®] Service: Southern Bell, Dated August, 1989
2. AccuPulse[®] Service: South Central Bell, Dated August, 1989
3. AccuPulse[®] Service: 4-wire (note: avail. only in GA and NC)

Service Order, Network & Billing Process Flows

AccuPulse^R Service

CLEC Information Package

NOTE:

This information is provided solely as a convenient reference for BellSouth customers. While BellSouth believes information contained herein to be consistent with applicable tariffs, the tariffs shall prevail in any instance in which an inconsistency may exist

**AccuPulse[®] Service
CLEC Information Package**

Contents

- 1. Service Description**
- 2. Tariff References**
- 3. Installation Intervals**
- 4. Service Inquiry and Ordering Guidelines**