450-1301-100

DMS-100 Family

TOPS Voice Service Node

AABS – Features Description

VSN07 Standard 10.03 August 1998

NORTEL
NORTHERN TELECOM

DMS-100 Family

TOPS Voice Service Node

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- updated information on how OLNS affects VSN screening codes

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VSN06 Standard 09.01

- AN1830 – OLNS Interactions
- added information on how OLNS affects VSN screening codes

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VSN05 Standard 08.01

- AN1578 – VSN: CM Compatibility for MDS
- AN1666 – VSN: TOPS CM Compatibility for ISUP and Country Direct
- added Screening code processing and table information, and optional features information

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VSN04 Standard 07.01

- AN1135 – VSN: Custom Branding
- AN1136 – VSN: Call Screening Enhancement
- updates AABS call flow

October 1994

VSN03 Standard 06.01

- AN0685 – VSN: AudioGram for MDS
  - — adds intentional messaging service to the message delivery system
- AN0730 – VSN/AABS Dialogue Enhancements
  - — provides enhancements to improve the dialogue between end users (both calling and called parties) and the TOPS Voice Services Node (VSN) system
- AN0844 – VSN: Commercial Credit Card support
  - — adds support for billing to commercial credit cards (CCC)

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BCS36 Standard 05.02

- BK05462 – Changes Needed to Accommodate TOPS Interchangeable NPA
- BK04790 – Extend AABS protocol for connection of DTMF receiver by the DMS

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BCS36 Preliminary 05.01

- AN0338 – VSN Enhancements for MDS Screening Restrictions – Canadian application only
- AN0339 – 0+ Gateway Intercept – Canadian application only
- BK03511 – Offering VSN features as separate deliverables

March 1993

BCS35 Standard 04.02

- preliminary document becomes standard with this release

October 1992

BCS35 Preliminary 04.01

- adds Account Code Billing

July 1992

BCS34 Standard 03.01

- adds Name Plus Locality, enhances CCITT Calling Card handling to permit the Tops Voice Service Node to recognize a larger range of CCITT Calling Card patterns, revises AABS call flow

October 1991

BCS33 Standard 02.01

- adds support for the full CCITT Extended Calling Card Format, provides a softkey to print the Locality Database and the ability for language passing between the DMS and the VSN, and upgrades the base software

April 1991

BCS32 Standard 01.01

- adds Prompt Manager, multi-language support, ACPE Maintenance, MMI Enhancements for Bilingual AABS Position, VSN Log and OM enhancements, Automatic T1 Switchover, and Locality Enhancements for Bilingual AABS

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About this document

When to use this document

Automated Alternate Billing Service (AABS) is a Northern Telecom (NT) product that enables telephone operating companies to fully or partially automate certain types of toll calls that would otherwise require operator assistance. Collect calls, third number billing calls, calling card billing calls, and commercial credit card billing calls are the 0+ calls that can be automated. This document describes the interaction between the systems TOPS, TOPS VSN, and DMS systems and the features that are available with TOPS VSN.

How to check the version and issue of this document

The version and issue of the document are indicated by numbers, for example, 01.01.

The first two digits indicate the version. The version number increases each time the document is updated to support a new software release. For example, the first release of a document is 01.01. In the *next* software release cycle, the first release of the same document is 02.01.

The second two digits indicate the issue. The issue number increases each time the document is revised but rereleased in the *same* software release cycle. For example, the second release of a document in the same software release cycle is 01.02.

To determine which version of this document applies to the software in your office and how documentation for your product is organized, check the release information in *Product Documentation Directory*, 297-8991-001.

This document is written for all DMS-100 Family offices. More than one version of this document may exist. To determine whether you have the latest version of this document, check the release information in *Product Documentation Directory*, 297-8991-001.

References in this document

The following documents are referred to in this document:

- *Product Documentation Directory,* 297-8991-001

- *System Administration and Maintenance Operating Procedures,* 450-1301-310

What precautionary messages mean

The types of precautionary messages used in NT documents include danger, warning, and caution messages. Danger, warning, and caution messages indicate possible risks.

Examples of the precautionary messages follow.

- DANGER Possibility of personal injury

DANGER
Risk of electrocution
Do not open the front panel of the inverter unless fuses F1, F2, and F3 have been removed. The inverter contains high-voltage lines. Until the fuses are removed, the high-voltage lines are active, and you risk being electrocuted.

- WARNING Possibility of equipment damage

WARNING
Damage to the backplane connector pins
Align the card before seating it, to avoid bending the backplane connector pins. Use light thumb pressure to align the card with the connectors. Next, use the levers on the card to seat the card into the connectors.

- CAUTION Possibility of service interruption or degradation

CAUTION
Possible loss of service
Before continuing, confirm that you are removing the card from the inactive unit of the peripheral module. Subscriber service will be lost if you remove a card from the active unit.

TOPS VSN features

Year 2000 compliance

The voice services node (VSN) is year 2000 compliant beginning with VSN software release VSN09. The addition of this feature is tranparent to customers and end–users.

For year 2000 compliance to take effect, the VSN09 software release must be installed prior to December 31, 1999 at 11:59 p.m. when the date rolls over to January 1, 2000 at 12:00 a.m.

Automated Alternate Billing Service

Automated Alternate Billing Service (AABS) is a Northern Telecom (NT) product which enables telephone operating companies to fully or partially automate certain types of toll calls that would otherwise require operator assistance. Collect calls, third-number billing calls, calling card billing calls, and commercial credit card billing calls are the 0+ calls that can be automated.

Additionally, collect and third-number calls that arrive at the operator can be handed off to AABS for call completion.

Automated Alternate Billing Service allows operating companies to fully or partially automate a number of operator-assisted calls. In doing so, the amount of operator intervention is reduced. The long-term benefit is a reduction in operator expenditures.

AABS is designed to compliment the current automated billing service, Mechanized Calling Card Service (MCCS) or AACS, in Canada.

In the United States, AABS handles intraLATA calls and works in conjunction with TOPS InterLATA Carrier Service (TICS). In Canada, AABS handles all calls in North America. Automated Alternate Billing Service is offered on DMS-200 TOPS, DMS-200 Remote, and DMS 100/200 Remote nodes.

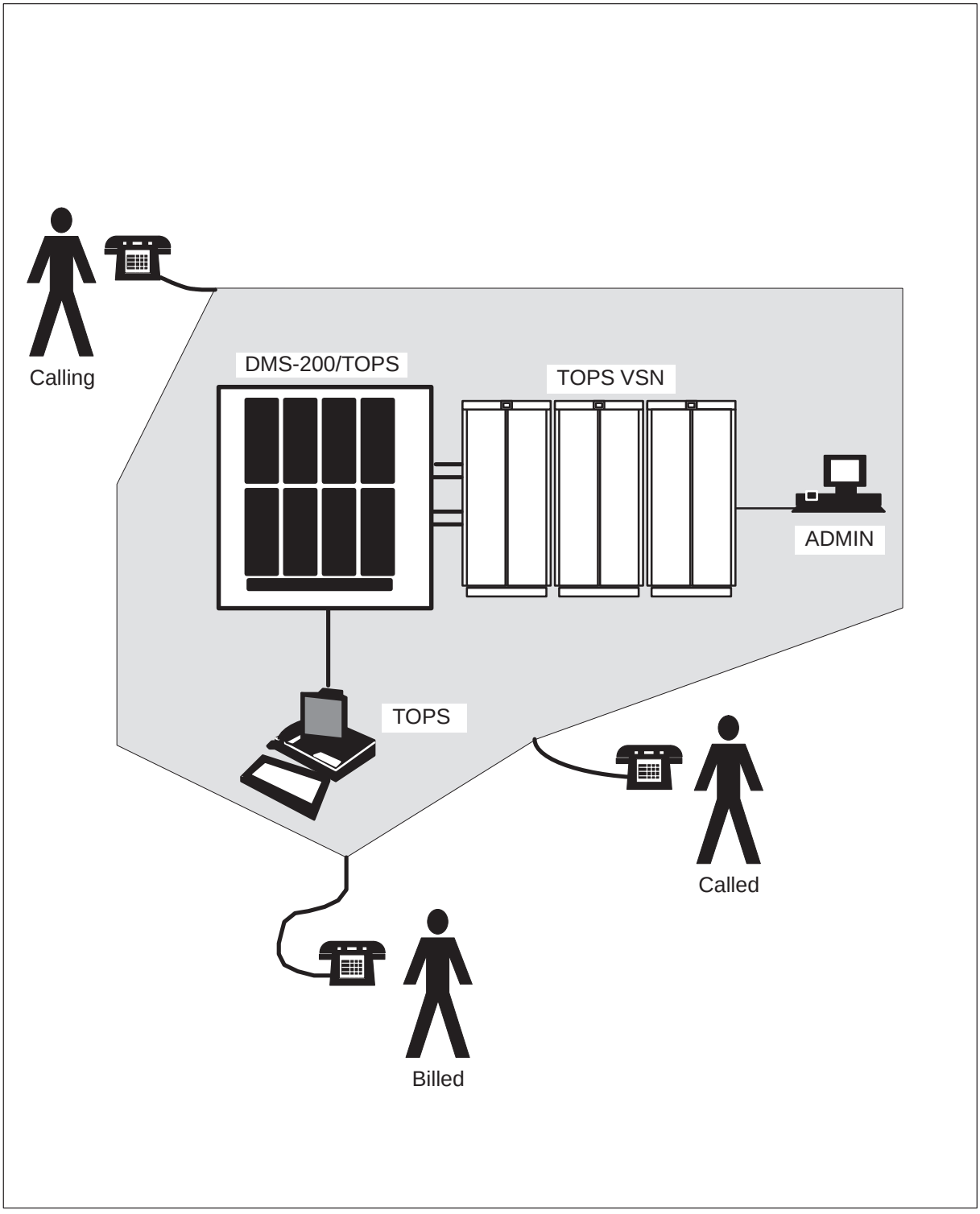
Automated Alternate Billing Service has three distinct components:

- DMS hardware and software

- Traffic Operator Position System Voice Service Node (TOPS VSN) hardware and software
- traffic operator position system (TOPS)

The interaction between the systems (TOPS, TOPS VSN, and DMS) and with the subscribers is illustrated in Figure 1–1.

Figure 1–1
AABS system and subscriber interaction



An overview of AABS operation

Calls that arrive at the DMS switch are screened for AABS suitability. Calls that cannot be handled by the TOPS VSN are routed to the operator. Calls that are suitable for TOPS VSN handling are sent directly to TOPS VSN.

Calls that are routed to the operator can be subsequently routed to the TOPS VSN if they are collect calls or third-number billed calls, and if they meet suitability requirements following the operator interaction.

When calls are sent to the TOPS VSN for automated handling, the caller is prompted by a bong tone to specify the type of service required. If there is no response to the tone, the system delivers a prerecorded speech message which identifies the range of acceptable subscriber actions.

The caller responds by making an entry on the telephone keypad or by signaling for the operator. A special number sequence identifies each type of service.

Once the TOPS VSN recognizes the caller request, it must obtain billing information. If the caller selects collect call service, the TOPS VSN already has the necessary billing information and proceeds to the next step automatically.

For calling card calls, commercial credit card calls, and third-party calls, the caller enters one of the following number patterns depending on the type of service requested:

- a calling card number or personal identification number (PIN)
- a commercial credit card number followed by a 4 digit PIN
- a third-party billing number

After the billing information is known, the TOPS VSN accesses several databases on the DMS to verify billing data. In the case of calling card calls, billing is accepted by virtue of a valid calling card number. In the case of commercial credit card calls, billing is accepted after checking with the credit card database. In the case of collect calls and third-number billing calls, the caller name is usually recorded and used to verify billing acceptance. The DMS rings the billed party, delivers a recorded message from the TOPS VSN requesting billing acceptance. The message can include a playback of the calling party name. The TOPS VSN then waits for a verbal or DTMF response that indicates whether or not charges are accepted.

The interaction of hand-off calls with the TOPS VSN is abbreviated. It consists of an optional welcome message and the recording of the name of the caller, followed by billing acceptance.

When the verification process is complete, the TOPS VSN instructs the DMS to complete the call.

TOPS VSN features

The TOPS VSN features are divided into the following groups:

- hardware
- administration and maintenance
- call processing
- interactive voice

Hardware features

The following combination of hardware features are associated with the TOPS VSN:

- six foot cabinet (one for 24-channel systems, two for 48-channel systems)
- auxiliary cabinet
- high availability option (N + 1 redundancy)
- voice and data capability and variable voice channel capacity
- voice interface SRUs

Bay 1

Bay 1 contains four shelves. Each shelf holds up to nine 1/4 wide DVS SRUs in addition to a power converter in the tenth (rightmost) slot. This bay always contains the prime processor and bus controller for the system, generally located in the first (bottom) shelf. A frame supervisory panel (FSP) and fans are included. A single 24-channel TOPS VSN system resides in one Bay 1 and a single auxiliary bay.

Bay 2

Bay 2 serves as an extension to Bay 1. As in Bay 1, it contains four shelves, an FSP, and fans; however, system bus ribbon cables are provided which allow this bay to be connected to Bay 1 to expand the capacity of a single system. Only three shelves in Bay 2 are used to expand the system; the bottom shelf remains isolated. A 48-channel TOPS VSN system comprises one Bay 1, one Bay 2, and one auxiliary bay.

Auxiliary bay

The auxiliary bay contains a mix of LAN Interface Unit (LIU) circuits, Alarm Interface Unit (ALIU) circuits, and modems. The auxiliary cabinet LIUs and associated option cards are installed in a –48 v powered shelf. This eliminates the requirement for switching room based 110 v inverters for the MS-1, TOPS, and TOPS VSN products. The auxiliary bay contains one LIU shelf (18 card capacity), one UDS modem shelf (16 card capacity), a cross-connect panel (five 25-pair teladapt connector capacity) and two unpowered DVS SRU storage shelves. An FSP and cooling units are also included.

Not all LIUs required by a product are placed in this cabinet. The LIUs used as interfaces to 110 V peripheral equipment (printers, terminals, and so forth) are self-contained 110 v units to be collocated with the peripheral equipment they are driving.

Frame supervisory panel

Each of the bays in the VSN system possesses a frame supervisory panel (FSP) which serves as a power and alarms control and as an indicator station for each bay. The FSP senses the failure of the following units:

- fuses and circuit breakers
- –48 v power convertors
- cooling units, top and bottom

The FSP also provides front panel indicators that identify the specific failed component. These indicators are as follows:

- one circuit breaker trip lamp for each circuit breaker
- two fan fail lamps, one for each of the upper and lower cooling units
- major, minor, and critical alarm lamps that light when signalled by the alarm interface unit (ALIU)
- a frame fail lamp that lights whenever any alarm condition is sensed in the FSP, including cooling unit, fuse, or circuit breaker failures, as well as external critical, major, or minor alarms
- a pending audible cut off (ACO) lamp that lights when the ACO FSP switch is activated is reset when the external ALIU senses and responds to the ACO

SRU high availability option

The high availability option that is provided in this release improves the reliability of the TOPS VSN. Three additional SRUs (one digital trunk link (T1) SRU, one voice interface (VI) SRU, and one application processor (AP) SRU) are installed, configured, and available for use. This type of reliability is referred to as N + 1 redundancy.

If an SRU that has a redundant counterpart fails, overall service continues with little or no interruption. Although service continues, any call using the faulty resources at the time of a failure is terminated. It is assumed that either the subscriber, the caller, or the called party will try the call again.

Voice and data capability and capacity

TOPS VSN is able to handle both data and voice communication. Datalink communication is handled by the X.25 protocol configured in an application processor SRU. Voice communications are handled by way of digital trunk link (T1) SRUs. Each T1 SRU controls 24 voice channels.

Depending on the needs of the operating company, a single TOPS VSN can be provisioned for 24- or 48-channel systems. When operating company requirements exceed 48-channel capacity, multiple TOPS VSNs can be installed.

Voice interface SRU

The voice interface shared resource unit (VI SRU) is unique to this product. This VI SRU is responsible for voice recording, voice playback, speech recognition, and dual-tone multifrequency (DTMF) recognition. Each VI SRU is capable of handling six voice channels. The capabilities of the VI SRU are discussed as interactive voice features later in this part.

Administration and maintenance features

TOPS VSN uses a three-part software set that is common to all products using the DNC platform, known collectively as base software. Base software contains an operating system, a facility called system administrative services (SAS), and other utilities and subsystems. The SAS facility is used to configure and maintain SRUs, program resource units (PRUs), and system security. Other utilities include the generic table editor which is used to create and update tables dynamically, and the log and alarm subsystem which is used to detect and report changes in the status of the system.

Administrative and maintenance features available to TOPS VSN are provided through the base software as follows:

- configuration control available through the SAS and table editor facility
- custom dialogue control available through the table editor facility
- TOPS VSN log and alarm available through the log and alarms facility
- TOPS VSN OM parameters viewing available through the table editor facility

Configuration control

TOPS VSN configuration tables must be administered and maintained by the operating company as follows:

- Datalink_Config table (TABLES)
- T1 Link configuration table set (System Administration: Configuration)

These tables come preconfigured, but should be modified to ensure that the switch names configured in the tables match the names used by the operating company.

The Datalink_Config table is configured and maintained through the table editor facility. The T1 configuration table set, used for voice communication, is configured and maintained through SAS.

Datalink_Config table

This table identifies each data link connected between the TOPS VSN and the DMS. The Datalink_Config table specifies the X.25 and control link PRUs connected to the link on the TOPS VSN side and the DMS connected on the other side.

T1 link configuration table set

There are four T1 configuration tables that specify the manner in which the voice communications are handled between the switch and the TOPS VSN.

The first three T1 configuration tables are common to all applications using digital trunk links (T1). They specify signalling, maintenance, and call processing parameters, and must be completed in conjunction with the forth table, Trunk ID Mapping.

The forth table, Trunk ID Mapping, is unique to the TOPS VSN. This table identifies the DMS connected to the TOPS VSN and the trunk connecting the TOPS VSN to the DMS, and also specifies the status of the link and each associated channel.

Custom dialogue control

A number of dialogue parameters may be configured by the operating company to suit customer needs. These parameters are found in five tables accessed from the main menu. These tables are listed as follows:

- VSN Retry Counts table
- VSN Digit Timing table
- User Interaction table
- Screening Code table (LOC_SCREEN_CODES)
- VSN System table

VSN Retry Counts table

This table is used to specify the number of times the subscriber can retry an action. The list of parameters in this table identifies the types of errors anticipated. See S*ystem Administration and Maintenance Operating Procedures,* 450–1301–310, for datafill details.

VSN Digit Timing table

This table is used to specify the maximum length of the waiting time for a subscriber response following a TOPS VSN originated tone, prompt, or message. The values of these parameters can be changed to suit local needs. See S*ystem Administration and Maintenance Operating Procedures,* 450–1301–310, for datafill details.

User Interaction table

This table is used to specify the way a call is processed. The manner in which some calls are processed depends on the time of day and where the call originates. See S*ystem Administration and Maintenance Operating Procedures,* 450–1301–310, for datafill details.

Screening_Codes table

This table is used to identify types of third-number billing calls. This table also associates an appropriate action with each code. See S*ystem Administration and Maintenance Operating Procedures,* 450–1301–310, for datafill details.

VSN System table

This table is used to specify the ID of the VSN. This ID must be unique for each of the multiple VSN sites.

TOPS VSN log and alarm messages

The log and alarm subsystem generates log messages for a number of hardware and software conditions. In most cases a log is generated when the subsystem detects a change. The change reported may be a normal or an abnormal occurrence, although most normal occurrences are suppressed. The same subsystem also generates alarms messages for critical, major, or minor alarm conditions.

Table 1–1
Log and alarm messages

Message	Definition
Critical	a system failure generated when nonredundant service-affecting equipment fails
Major	a service-affecting failure generated when a data voice link fails and a redundant link is available to re-establish service automatically
Minor	any failure that does not affect service

Log and alarm messages are stored on disk and can be accessed for review or printing. Log and alarm messages specific to TOPS VSN are described in *TOPS Voice Service Node Log and Alarm Messages*, 450–1301–511.

The VSN ID feature allows the user, at installation time, to give each particular VSN an individual name or ID. This ID is printed on all logs generated by the system. This feature is of particular use in locations where several VSNs reside, allowing personnel to quickly identify the source of problems.

Bay alarms

The bay hardware configuration requires a separate ALIU for each bay. Each bay has its own contact points for power, fan, and fuse alarms. In order to monitor the two (24-channel system) or three (48-channel system) bays required for the VSN product, a separate ALIU is required for each bay.

While each ALIU is handled exactly the same, the state of each ALIU is maintained separately. A fan failure in Bay 1 is picked up by the software and an alarm is raised in Bay 1. Similarly, a fan failure in the auxiliary bay is picked up by the software and an alarm is raised in the auxiliary bay. The frame fail lamp is displayed only on the offending bay.

Feature Install

This feature allows customers to order specific feature packages on an optional basis. The order process provides a basic VSN load tape and a separate feature authorization tape. A Service Data Manager (SDM) Features table is provided to display the status of all feature packages.

The basic VSN load contains all of the available VSN feature packages; however, all of the optional packages are disabled. The feature authorization tape provides the access to enable the optional packages and serves as permission rights for the optional packages.

ACPE Maintenance Position

This feature allows the user to reboot the ACPEs, one at a time, without losing any calls in progress (assuming a 48-channel system), while the second ACPE handles new incoming calls. The user can place one or both ACPEs ManBusy by pressing the <ManBusy> softkey while an ACPE is In-service. Figure 1–2 shows the man-machine interface (MMI) which can be used either to monitor the current call load of the system, or to ManBusy an ACPE so that it can be rebooted in order for new datafill to become current. The ACPE Maintenance Position main menu shows the state, usage, and load of all ACPEs in a VSN.

As soon as the <ManBusy> softkey is pressed, the selected ACPE state changes to ManBusy Pending. While the ACPE is ManBusy Pending, it does not receive any new calls from the ACPE Resource Manager, but does process to completion all calls in progress. After the ACPE finishes processing those calls (and its state automatically changes from ManBusy Pending to ManBusy), the ACPE can be rebooted safely from SAS maintenance. If this is done during low traffic hours, there is little or no adverse effect on the system since, while one ACPE is being rebooted, the second ACPE handles any new incoming calls.

Figure 1–2
ACPE Maintenance Position screen

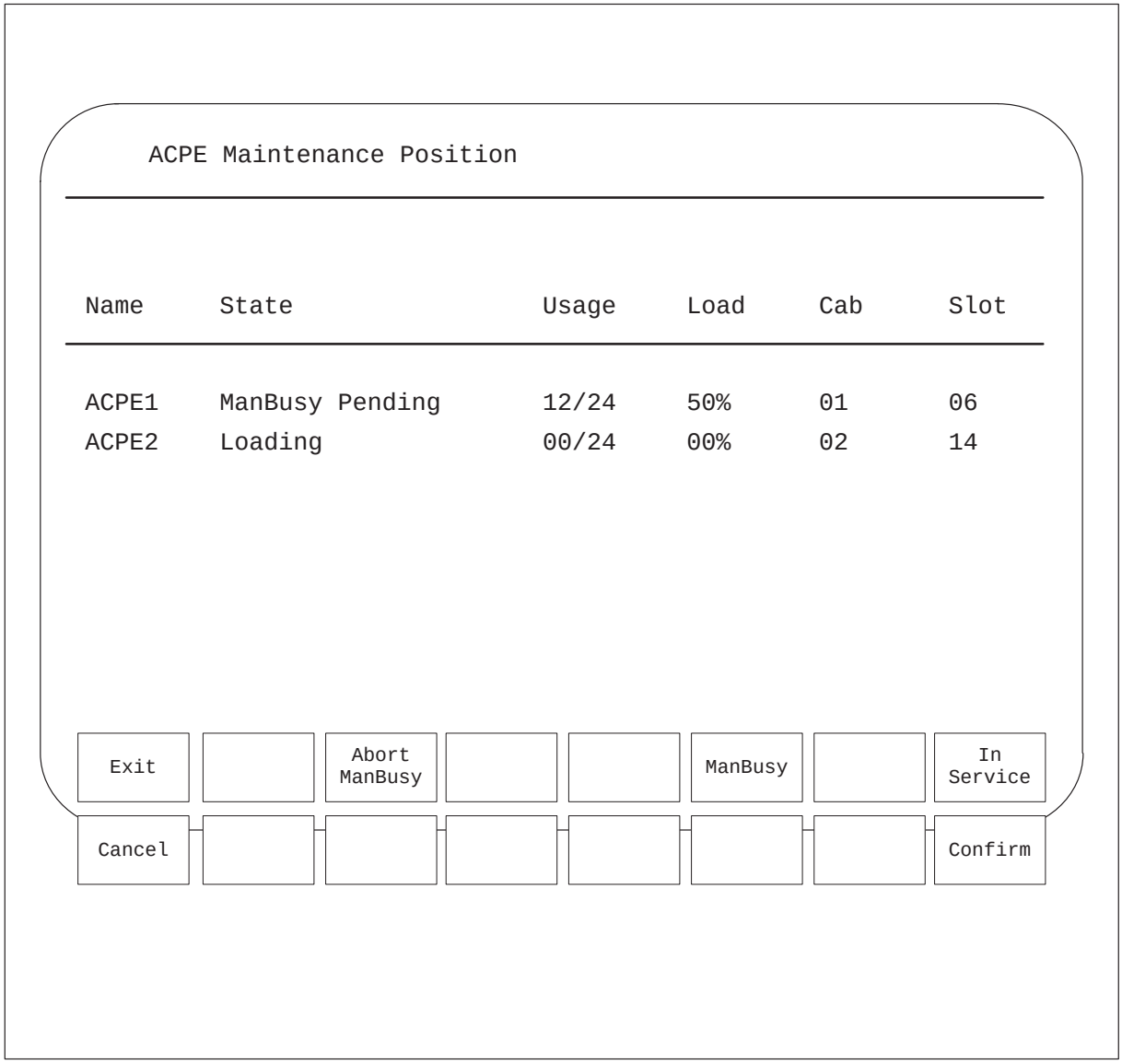


Table 1–2 describes the functions performed by each of the ACPE Maintenance Position softkeys.

Table 1–2
ACPE Maintenance Position softkey functions

Function	Response
Exit	Exit returns the user to the VSN Main Menu.
Abort ManBusy	When this softkey is pressed, if the state of the selected ACPE (select by placing the cursor on it) is ManBusy Pending, the ACPE is placed In-service. If the ACPE is in any other state, no action is taken and the user is given an error message.
ManBusy	When this softkey is pressed followed by the <Confirm> softkey, if the state of the ACPE selected is In-service, the ACPE is placed in ManBusy Pending. If the ACPE is in any other state, no action is taken and the user is given an error message. Once the ACPE is ManBusy Pending, it continues to process current calls to completion but does not receive any new calls from the ACPE Resource Manager. Once the ACPE processes all current calls to completion, its state automatically changes to ManBusy.
In-service	When this softkey is pressed, if the state of the ACPE selected is ManBusy, the ACPE is placed In-service. If the ACPE is in any other state, no action is taken and the user is given an error message. After the ACPE is In-service, it starts receiving new calls from the ACPE Resource Manager.
Cancel	Cancels the previous command (ManBusy) and displays softkey bank 1.
Confirm	Executes the previous command (ManBusy) and displays softkey bank 1.

Operational measurements

There are four operational measurement (OM) groups defined for TOPS VSN. A complete description of the OMs collected by the TOPS VSN is given in *TOPS Operational Measurements*, 450–1301–110. A brief description is given in the following paragraphs.

Service group

This group tracks data related to billing service. Some events tracked by this OM group are the number of calls presented to the VSN, successfully automated, rejected, or aborted.

3rdmisc group

This group tracks data related to third-number billing calls, AudioGram messages, and miscellaneous OMs. Some events tracked by this OM group are the number of times the caller hangs up and the number of times the billed number is the same as the called number. In a bilingual system, OMs regarding language are tracked by this OM group.

Namercd group

This group tracks data related to name recording. Some events tracked by this OM group are the number of times name recording is successful and the number of times name recording is unsuccessful.

Billacc group

This group tracks data related to the recognition of speech and DTMF tones by the TOPS VSN. Some events tracked by this OM group are the number of times a yes or no response is recognized, the number of times a response is detected but unrecognized, the number of times a response is not detected, and the number of times that a 1 or a 0 is entered.

Report classes are also defined for the TOPS VSN. A report class defines the type, scope, and content of the reports associated with each class. Two reports are generated for each OM group in the TOPS VSN OM report class. The first is a basic report that reports the number of times a particular action has occurred. The second is a summary of the same data which has been grouped by the number of times an action occurred relative to another action. These numbers are reported as percentages. The third reports the totals of the basic report.

Report frequency

The Dynamic OM feature provides a parameter in the User Interaction table that determines OM report printing frequency. The possible report choices are listed in Table 1–3.

Table 1–3
OM report frequency

Report type	Frequency
Holding	Holding reports are generated once, at the end of a report period when a full start time and full end time are defined, or when the report is disabled and no times are defined. The data that is contained in this report is the same as an accumulation type report that has no options defined and that has a frequency of every report interval.
Hourly	Hourly reports are generated with data collected for a full hour, from the start of each hour, expressed in both numeric and percentage form.
Daily	Daily reports are generated with data collected for the full day from the start of each day. This report is divided into hourly reports and a report for the full day, expressed in both numeric and percentage form.
Weekly	The customer can specify report generation every week. The weekly report is generated with data collected for a full week from the start of each week (Monday). The report has two parts: the basic report broken down for each hour in the week and the summary report for the whole week listing totals for the week in numeric and percentage form.
Monthly	The customer can specify report generation every month. The monthly report report is generated with data collected for a full month from the start of each month. The report has two parts: the basic report broken down for each hour in the month and the summary report for the whole month listing totals for the month in numeric and percentage format.

Frame fail alarm

The TOPS VSN frame has a red frame fail lamp located on the front of the frame. This lamp can be seen by the user even when the frame doors are closed and the frame supervisory panel indicators are not visible.

Audible cutoff

The FSP provides an audible cutoff (ACO) switch that allows the craftsperson to turn off audible and aisle alarm indicators before a failure condition is cleared.

Call processing features

TOPS VSN is unique among the Northern Telecom DNC-based products. TOPS VSN can identify and process three types of calls using the following interactive features:

- speech or DTMF tone recognition
- real-time voice recording
- DTMF digit processing
- announcement delivery

The complex series of tasks required to perform these call processing features is orchestrated by the application call processing engine (ACPE). The ACPE uses state tables to ensure sequence control and execution of all its call processing tasks.

Call processing of 0+ calls is divided into two phases, the service selection phase and billing service phase. Operator Hand-off calls are processed using an abbreviated form of the 0+ procedure; service selection and billing validation is made before the calls are handed off to the VSN.

VSN call processing begins by playing a bong tone and telco brand as determined by VSN datafill. Datafill can be set up to support the following combinations of bong tone and telco branding:

- bong tone
- bong tone, branded welcome announcement
- bong tone, custom branded announcement
- telco brand, bong tone
- telco brand, bong tone, branded welcome announcement.

The subscriber can enter DTMF digits to select services over the bong tone and telco branding.

Service selection phase

During the service selection phase, the caller must either select one of the billing methods listed below or signal for the operator.

- collect calls
- third-party billing
- calling card billing
- commercial credit card billing
- account code billing
- audiogram messaging services

Service selection begins with a bong tone and an optimal service selection message. Following the bong tone the subscriber is expected to select a service by dialing one of the following numbers:

- dial 11 for collect call selection
- dial 12 for third-number billing selection
- dial the 10 digit billed number followed by the number sign for third-number billing
- dial the calling card number or the calling card PIN number
- dial the commercial credit card number followed by the credit card PIN number
- dial star (*) for AudioGram if the service is active
- dial 15 for account code billing
- dial 0 or hook-flash for the operator

Billing service phase

There are five types of billing services, one for each billing method the caller can choose. A description of each type follows.

Collect call service

Collect call service begins when the DMS switch checks the line information database (LIDB) or the billing validation authority (BVA) database to ensure that the billed number is not flagged as one that never accepts collect calls.

If required, the caller is prompted by the TOPS VSN to say his or her name. This name is recorded. (In some cases the operating company may choose to disable this feature). The call is then placed. When answered, the caller talking path is disabled to allow the TOPS VSN to deliver the billing acceptance message to the billed party.

> ***Note:*** After the caller's name is recorded, an announcement is played informing the caller to stay on the line while billing information is verified. Callers may press the number sign (#) to bypass this announcement and allow the VSN to go to the next step in the call flow.

As part of the billing acceptance message that is delivered from the TOPS VSN, the recorded name is announced to the billed party. The billed party must accept or reject charges by answering yes or no to the question posed by the TOPS VSN, or by entering the digit 1 to accept the charges or 2 to refuse the charges if DTMF billing is enabled. If charges are accepted, the call is connected and the caller talking path is enabled. If charges are rejected, the caller is informed and asked to hang up.

Third-number billing service

Third-number billing service begins with a prompt or a bong tone from the TOPS VSN for the 10 digit number to bill. This number is checked by the DMS switch against data in the LIDB or BVA databases to ensure that it is not flagged as one that never accepts third-number billing charges.

Once this is done, the caller is prompted to say his or her name. The name is recorded and announced to the billed party during billing acceptance, provided the operating company has not disabled this option.

> ***Note:*** After the caller's name is recorded, an announcement is played informing the caller to stay on the line while billing information is verified. Callers may press the number sign (#) to bypass this announcement and allow the VSN to go to the next step in the call flow.

Verbal or DTMF billing acceptance may only be required during certain times of the day. Ordinarily, verbal billing acceptance is not required between 24:00 and 06:00 hours for all noncoin originated calls. Refer to the description of the User Interaction table in S*ystem Administration and Maintenance Operating Procedures*, 450–1301–310, for an explanation of the parameters controlling this function. When verbal or DTMF billing acceptance is required, the billed party must answer yes or no, or enter 1 to accept or 2 to refuse the charges. If the charges are accepted, the caller is connected to the called number. If the charges are refused, the caller is asked to either hang up or select another billing option.

Calling card number billing service

Calling card (CC) number billing service begins when the caller enters either a complete calling card number or a personal identification number (PIN) after the bong tone. The calling card number is then validated by the DMS switch. The call is also checked against the list of valid numbers the calling card may be used for. If the call can be billed to the calling card number, it is connected. If the call cannot be billed to the calling card number, the caller is informed.

Commercial credit card number billing service

Commercial credit card (CCC) billing service provides callers with the option of billing calls to a valid CCC number.

The CCC number is made up of the 11 to 19 digit number printed on the credit card and the 4 digit PIN associated with the credit card. A CCC number may be entered at any point in the call where entry of a standard calling card number is allowed. No special prompt is given asking the caller to enter a CCC number.

Commercial credit card numbers follow the format shown in the table below. In the DMS switch, however, a valid CCC is defined as any 15 to 23 digit number that does not begin with the digits 89. The VSN accepts all numbers of this format except those starting with the digit 1, but only numbers that match the format in this table will receive CCC–related announcements.

Commercial credit card format

Length	Calling Card Number	PIN
15	CXXX XXXX XXX	XXXX
16	CXXX XXXX XXXX	XXXX
17	CXXX XXXX XXXX X	XXXX
18	CXXX XXXX XXXX XX	XXXX
19	CXXX XXXX XXXX XXX	XXXX
20	CXXX XXXX XXXX XXXX	XXXX
21	CXXX XXXX XXXX XXXX X	XXXX
22	CXXX XXXX XXXX XXXX XX	XXXX
23	CXXX XXXX XXXX XXXX XXX	XXXX

Note: C is any digit other than 1, and X is any digit.

To avoid delay for callers using 14 digit calling card numbers that overlap with credit card numbers, a timer is activated after the 14th digit is entered. If the timer expires before any more digits are entered, the call continues as a standard calling card call. If any digits are entered before the timer expires, digit collection is resumed and the call proceeds as a CCC call.

Restrictions Commercial credit card billing has the following restrictions:

- Callers who are unsuccessful at billing calls to their credit cards in the number of attempts determined by the telephone company are not offered the option to transfer to an operator.

- Unlike calling card calls, commercial credit card calls cannot be billed to the PIN associated with the credit card. Both the credit card number and the PIN are required for CCC billing.

AN0409, TOPS Acceptance of Commercial Credit Cards, is required for commercial credit card billing.

Call flow Commercial credit card number billing, which is always a 0+ call, begins when the caller enters a 15 to 23 digit number after the bong tone.

To minimize the impact of accepting credit cards on 14 digit calling card calls, the first six digits are checked to determine if they could be part of either a calling card number or a credit card number.

If there is no overlap, then the number cannot be a credit card number and the call is immediately processed as a calling card call.

If there is overlap, a timer is started after the 14th digit is entered. If no more digits are entered before the timer expires, digit collection continues as for a credit card. Overlap checking is performed using data from the Commercial Credit Card Table described in *System Administration and Maintenance Operating Procedures*, 450–1301–310.

> ***Note:*** After entering all the required digits, callers can avoid waiting for the timer to expire by pressing the octothorpe, #.

When the VSN detects that the number of a CCC has been entered, a timer is activated while waiting for the 4 digit PIN. If the timer expires before the PIN is entered, an announcement is played reminding the caller to enter the PIN.

The credit card number is then validated by the DMS switch. If CCC billing is accepted and the call can be billed to the commercial credit card number, it is connected. If CCC billing is denied after a pre–determined number of attempts, a referral announcement is played instructing the caller to contact an agent of the company that issued the credit card, and the call is terminated. The telephone company determines the number of times CCC billing must be rejected before the referral announcement is played.

Account code billing

Account code billing (ACB) provides the ability to separate and display 0+ calls, which need to be charged to different persons or accounts, on a single telephone bill. A two to four digit account code is assigned to individual telephone calls and is passed to the DMS, which uses the code to classify and list the calls by account code on the customer bill.

The customer has total control over the account codes and may use new codes at any time. To use account code billing, the customer enters 15 followed by the account code at the AABS service selection prompt.

Note: Account Code Billing calls are always station paid.

An account code may be any two to four digit number chosen by the subscriber. All account codes are left padded with a 0 to make them four digits long before they are passed to the DMS. As a result, codes can be numerically equal and will appear as the same code on the subscriber bill. For example, the following codes are equivalent:

- 16
- 016
- 0016

These codes are displayed as 0016 on the subscriber bill.

Account code entry is terminated by entering a pound sign (#) or by waiting for the timeout value Interdigit in the VSN Digit Timing table to expire.

An account code is invalid if the code is less than two digits or more than four digits in length, or if the code contains an asterisk (*).

Account code billing is determined in the User Interaction table and defined by the following parameters: Disabled (Disabled), Service Selection Reprompt (SSPROMPT), and Account Code Reprompt (ACPROMPT).

Restrictions Account code billing has the following restrictions:

- Alternate billing calls (third-party, calling card, and so forth) cannot be used with ACB. All ACB calls are billed as 1+ calls.
- ACB cannot be used from hotel phones, public phones (including coin), and restricted phones (prison).
- Account codes cannot be validated because they are randomly selected by the subscriber at any time. Only the length of the account code is checked.

Call flow Account code billing, which is always a 0+ call, begins with a bong tone and optionally a greeting, language prompt, or both, and the service selection prompt. The caller enters 15 to select account code billing. If ACB is set to disabled in the User Interaction table, the caller is informed that the number entered is invalid. If the ACB is not set to disabled, the call proceeds to the account code entry state.

A prompt is presented to enter an account code, which may be interrupted by entering a DTMF digit. If a valid account code is entered, a validation message is sent to the DMS. If the DMS indicates that billing is denied, the user is informed that the call cannot be completed and the call is aborted. If billing is accepted, the caller receives a thank-you message and the call is sent to the DMS.

If an invalid account code is entered, an error message is presented. The number of attempts to enter a valid account code is defined by datafill in the account code retry counter in the VSN Retry Counts table. When the number of retries is exceeded, the user is informed that the call cannot be completed and the call is aborted.

If an account code must be reentered, the method to prompt for the account code depends on the operating mode selected for this feature as follows:

- Service selection reprompt (SSPROMPT) presents a service selection prompt. The caller must enter 15 again before attempting to enter an account code. Only ACB can be selected at this service selection prompt. SSPROMPT provides compatibility with the ACB feature on MCCS and ACCS.
- Account code reprompt (ACPROMPT) presents a prompt to reenter the account code. It is not necessary to enter 15 again to select account code billing after this prompt. If 15 is entered, it is interpreted as part of an account code.

Unsuccessful account code billing calls are not routed to the operator. The call is routed to the operator only if the subscriber hook flashes or dials 0 after selecting account code billing. Using hook-flash or dialling 0 to reach an operator is necessary for emergency situations that require human intervention. The operator, however, does not have access to account code information. It is the responsibility of the operating company to educate operators to handle this situation.

Signalling for an operator

The subscriber, either caller or billed party, may signal for an operator in a number of ways at various stages of call processing. During service selection, the caller may either dial 0, hook-flash, or wait for the service selection timeout to expire.

During billing verification, the operator can be signaled only for collect and third-number billing calls. The operator is connected when timeout and retry limits are reached or when the billed party stays on the line in response to a TOPS VSN message.

Prompt manager set archive

The TOPS VSN Prompt Manager is used perform the following activities:

- import prompts from tape
- store prompts in a library
- edit prompts
- place prompts in a set
- install sets on the TOPS VSN
- import and install custom brand sets

The Set Archive feature enables the export of prompt set-issues to a cartridge tape. This allows the operating company to record and organize set-issues in one location and to install these set-issues quickly and easily at another location. Up to 20 sets can be exported at a time. Once a set is exported, the prompts in the set can be imported on a prompt-by-prompt basis.

The <Export to Tape> softkey is used to export all the selected set-issues to a cartridge tape. The user selects one or more set-issues on the set management screen. The prompt manager then attempts to write the selected set-issues to tape. A minimum of one set-issue must be selected before the <Export to Tape> softkey is available. The <Export to Tape> function does not change any of the sets currently in the prompt manager.

Note: Sets on a given cartridge tape must each have a unique name.

Default prompt names

To add prompts to the library, a user must access the Add Prompts To Library screen. The <Default Names> softkey supplies default names for the Lib Prompt Name fields from the File Prompt Names which were selected using the <Select/Unselect> or <Select All> softkeys. The default names are the same as the File Prompt Name field. The next highest issue of the Lib Prompt Name is also displayed.

Supplying a default name is not always possible because prompt names from tape cannot always be used as prompt names in the library. Naming conflicts might occur due to the 15 character length limitation on the library prompt names and the limitation on which the characters are allowed in a library prompt name. In the case of a naming conflict, the Lib Prompt Name remains blank (no default name supplied) and the system displays a message indicating that not all fields were supplied default names.

The message displayed after a user presses the <Default Names> softkey displays the total number of default names supplied out of the total prompt names. For example, if there were naming conflicts on two of 20 prompts selected for default prompt names, the following message is displayed:

```
18 of 20 default prompt names supplied
```

This message states that two default names were not supplied. This information is useful because the prompts in error are not visible on the screen. The prompt names can be entered as required.

Multiple set-types

Set-type determines the action taken to install a set-issue. Prior to BCS 31, the only available set-type was Loc because the initial target for the Prompt Manager was Locality. This feature supplies multiple set-types for future support of applications other than locality.

> **Note:** Only locality and brand set-issues are allowed to be installed from the Set Management screen and the set installation interface is only implemented for locality and brand set-issues at this time.

The <Change Set Type> softkey on the Prompt Management screen is used for multiple set-types. The softkey toggles between the different set-types. When the desired set-type is displayed on the screen, the user can save the set-issue and the set-type. Using a softkey to choose a set-type prevents the users from having to move to an additional field to enter a set-type name. Locality is the default set-type, which is displayed when a user first accesses the Prompt Management screen.

Once a set-issue is created, the only way to change the set-type is to edit the set-issue, change the set-type, and save the set as the next issue of that set. In other words, the set-type of a set-issue cannot be changed.

The following set-types are provided:

- locality
- credit card
- third-party
- collect
- service selection
- miscellaneous
- brand (telco brands)

Extended calling card format

VSN supports the CCITT calling card format. The CCITT calling card format was established to provide a worldwide standard for telecommunications calling cards. This format is supported by VSN when this feature is present.

> ***Note:*** The VSN only collects digits. All CCITT format checking is performed by the DMS.

The CCITT format is a variable length format 5–23 digits in length. It has four major parts: the Issue Identification Number, the Individual Account Identification Number, the Luhn Check Digit, and the PIN.

The Issuer identification number is 4–7 digits in length and consists of the fields defined in Table 1–4.

Table 1–4
Issuer Identification number fields

Field	Definition
MII	MII is the Major Industry Identifier and is two digits in length. Each digit ranges in value from 0–9 and identifies the industry or the card user.
CC	CC is the Country Code and is 1 to 3 digits in length. Each digit ranges in value from 0–9 and identifies the country code or world zone of the card issuer.
IIN	IIN is the Issuer Identification Number and is 1 to 4 digits in length (fixed for any given Country Code). Each digit ranges in value from 0 to 9, identifies the card issuer in a given Country Code (combined length of CC and INN cannot exceed five digits), and has a length of three digits assigned for World Zone one.

The Individual Account Identification Number is 1–14 digits in length and consists of one field defined in Table 1–5.

Table 1–5
Individual Account Identifier Number

Identifier	Definition
IAIN	IAIN is the Individual Account Identification Number, 1–14 digits in length (fixed for any given Issuer Identification Number), each digit ranges in value from 0–9.

Luhn Check Digit is one digit in length and consists of one field defined in Table 1–6.

Table 1–6
Luhn Check Digit

Field	Definition
LCD	LCD is the Luhn Check Digit and is one digit in length ranging in value from 0–9 and providing local screening of the calling card by a format check.

The combined length of the Issuer Identification Number, Individual Account Identification Number, and Luhn Check Digit (for example, the Primary Account Number length) cannot exceed 19 digits.

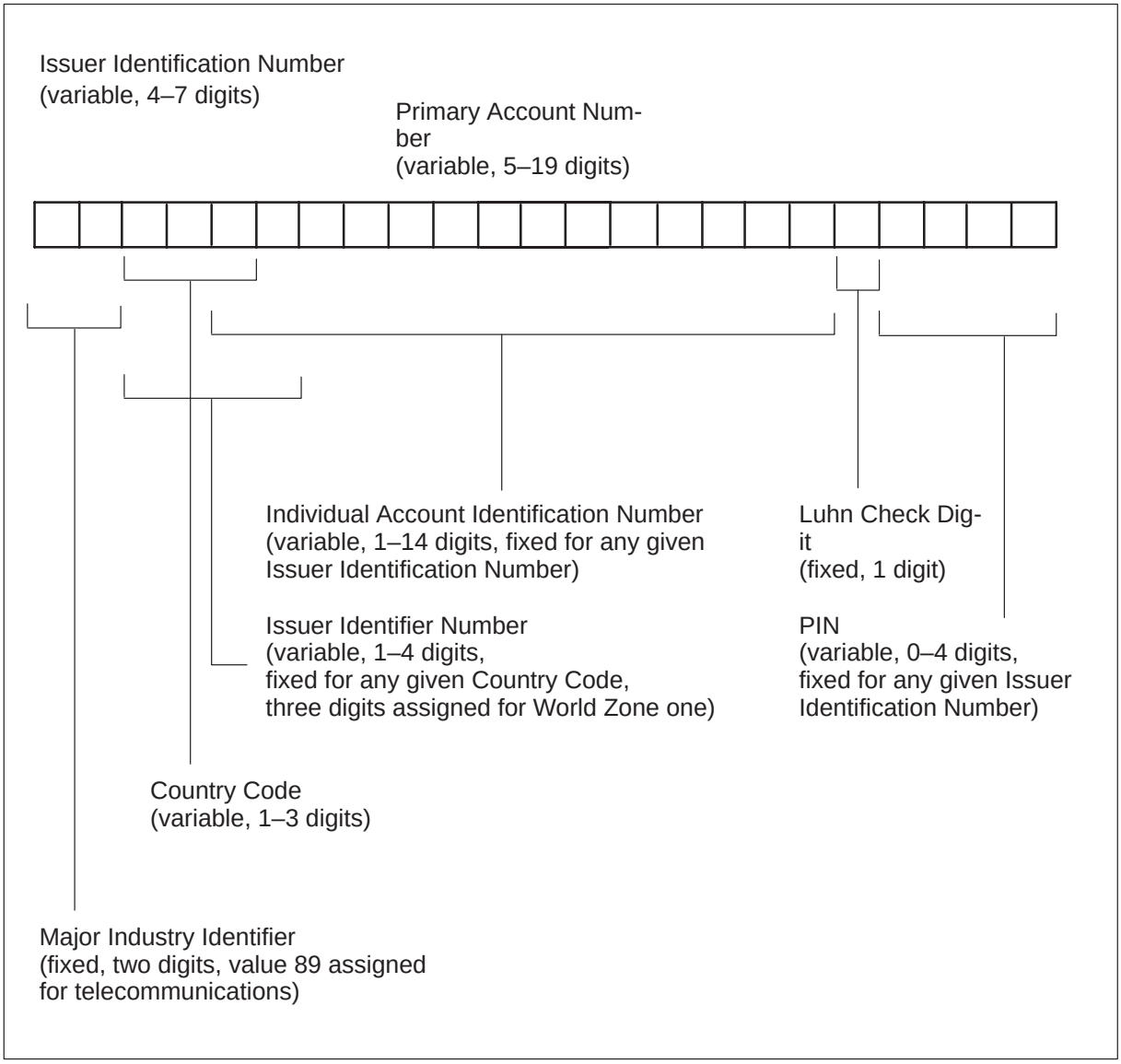
The Personal Identification Number is 0–4 digits in length and consists of one field defined in Table 1–7.

Table 1–7
Personal Identification Number

Field	Definition
PIN	PIN is the Personal Identification Number which is 0–4 digits in length with each digit ranging in value from 0–9.

Figure 1–3 shows the layout of the CCITT calling card format. Since this is a variable length format (even down to individual fields), the fields in the figure can overlap each other. Fields are shown extending from their leftmost possible position to their rightmost possible position in relation to other fields.

Figure 1–3
CCITT calling card format



The maximum PIN length supported for CCITT calling cards is four digits. The VSN accepts CCITT numbers that are between 5 and 23 digits in length.

On response from the database queries from the DMS, any restrictions on individual calling cards will not be given custom announcements. For example, if an individual calling card is restricted to calls in a specific LATA and an attempt to make a call outside of this area is executed, the database query denies this calling card. VSN only plays a general billing denied announcement and does not address why billing was denied.

Bilingual grammar

Bilingual grammar defines the patterns of digits used to match digit sequences entered by subscribers. The range of digit values valid for certain digit positions in selected patterns are restricted to avoid conflicts with other valid digit sequences.

The digit 1 cannot be used as the first digit of any CCITT pattern. When 1 is detected in the first position of a pattern, the VSN assumes the first 2 digits of the sequence indicate language or service selection. The bilingual grammar must avoid conflicts between the elements of the CCITT syntactic unit, the language syntactic unit, and elements of syntactic units that begin with service selection 11 and 12. This is accomplished by specifying the syntactic unit C in the first position. C is used for the first position of the CCITT patterns except in those strings where it is necessary to avoid conflicts with NXX NXX XXXX, in addition to avoiding language and service selection conflicts. In those instances, the digit 0 is mandatory in the first position.

All possible calling card number combinations whose first ten digits match the pattern NXX NXX XXXX are recognized as valid CCITT calling cards, except for four. The four exceptions are as follows:

- NXX NXX XXXX
- NXX NXX XXXX 1
- NXX NXX XXXX 1X
- NXX NXX XXXX [Lang] [Lang]

Cards matching the first pattern are given bill-to-third number treatment. Cards matching the second and third patterns are given bill-to-third number treatment with attempted language selection (except for NXX NXX XXXX 10, which continues to be sent to the operator.) Cards matching the fourth pattern are given bill-to-third number treatment with successful front-end and back-end language selection.

Elements of the CCITT syntactic unit

The valid CCITT syntactic unit elements are defined in Table 1–8.

Table 1–8
CCITT syntactic unit elements

CCITT unit	Element
N	2,3,4,5,6,7,8,9
P	0,1
A	0,1,2,3,4,5,6,7,8,9
X	0,1,2,3,4,5,6,7,8,9
C	0,2,3,4,5,6,7,8,9
D	0,1,2,3,4,5,6,8

Five-digit CCITT calling card number

A five-digit calling card number with the first position treated is designated as CXXXX. Examples of valid and invalid five-digit calling card numbers are as follows:

- 01234 is a valid.
- 12345 is invalid. The first digit is not a member of the syntactic unit C. 1 is interpreted as the first digit of language or service selection.

Six-digit CCITT calling card number

A six-digit calling card number with the first position treated is designated as CXXXXX. Examples of valid and invalid six-digit calling card numbers are as follows:

- 012345 is valid.
- 123456 is invalid. The first digit is not a member of the syntactic unit C. 1 is interpreted as the first digit of language or service selection.

Seven-digit CCITT calling card number

A seven-digit calling card number with the first position treated is designated as 0XXXXXX. Examples of valid and invalid seven-digit calling card numbers are as follows:

- 012 3456 is valid. The 0 in the first position distinguishes the string from NXX XXXX because 0 is not a member of the syntactic unit N.
- 123 4567 is invalid. The first digit is not a member of the syntactic unit C. 1 is interpreted as the first digit of language or service selection.
- 23 45678 is valid.

Eight-digit CCITT calling card number

An eight-digit calling card number with the first position treated is designated as CXXXXXXX. Examples of valid and invalid eight-digit calling card numbers are as follows:

- 01234567 is valid.
- 23456789 is valid.
- 12345678 is invalid. The first digit is not a member of the syntactic unit C. 1 is interpreted as the first digit of language or service selection.

Nine-digit CCITT calling card number

An nine-digit calling card number with the first position treated is designated as CXXXXXXXX. Examples of valid and invalid nine-digit calling card numbers are as follows:

- 012345678 is valid.
- 234567890 is valid.
- 345678917 is valid.
- 123456789 is invalid. The first digit is not a member of the syntactic unit C. 1 is interpreted as the first digit of language or service selection.

Ten-digit CCITT calling card number

The ten-digit CCITT calling card number pattern is designed to avoid conflicts with the NXX NXX XXXX pattern.

Examples of syntax for ten-digit calling card numbers are as follows:

- A ten-digit calling card number with the first position treated is designated as 0XXXXXXXXX.
- A ten-digit calling card number with the first and second positions treated is designated as CNXXXXXXXX.
  - — The digits of syntactic unit P in the second digit position is not allowed. The intersection of syntactic units N and P is the null set.
- A ten-digit calling card number with the first and third positions treated is designated as CN0XXXXXXX.
  - — The digits of syntactic unit A in the third digit position is not allowed. The intersection of syntactic units A and 0 is the null set.
- A ten-digit calling card number with the first and fourth positions treated is designated as CXXPXXXXXX.
  - — The digits of syntactic unit N in the fourth digit position is not allowed.

Examples of valid and invalid ten-digit calling card numbers are as follows:

- 016 596 3086 is valid. 0 in the first position distinguishes the number from NXX NXX XXXX because 0 is not a member of the syntactic unit N.
- 226 596 3086 is valid. 2 in the second position distinguishes the number from NXX NXX XXXX because 2 is not a member of the syntactic unit P.
- 216 096 3086 is valid. 0 in the fourth position distinguishes the number from NXX NXX XXXX because 0 is not a member of the syntactic unit N.
- 216 596 3086 is invalid. The number is interpreted as a third-party number.
- 210 596 3086 is invalid. The number is interpreted as a third-party number.
- 116 596 3086 is invalid because the string begins with 1.

Eleven-digit CCITT calling card number

An eleven-digit calling card number with the first position treated is designated as CXXXXXXXXXX. Examples of valid and invalid eleven-digit calling card numbers are as follows:

- 01234567890 is valid.
- 12345678901 is invalid. The string begins with 1.
- 23456789012 is valid.
- 34567891719 is a valid CCITT calling card number and not a seven-digit third-party number with both calling party and billed party language selection.
- 21659630861 is invalid. The number is interpreted as a third-party number with attempted language selection.

Twelve-digit CCITT calling card number

The twelve-digit CCITT calling card number pattern is designed to avoid conflicts with patterns that contain the NXX NXX XXXX pattern and are twelve digits in length as follows:

- 12 [NXX NXX XXXX]
- [Lang] [NXX NXX XXXX]
- [NXX NXX XXXX] [Lang]

Examples of the syntax for twelve-digit calling card numbers are as follows:

- A twelve-digit calling card number with the first position treated is designated as 0XXXXXXXXXXX.
- A twelve-digit calling card number with the first and second positions treated is designated as CNXXXXXXXXXX.

— The digits of syntactic unit P are not allowed in the second digit position.

- A twelve-digit calling card number with the first and eleventh positions treated is designated as CXXXXXXXXXCX.
  — The digit 1 is not allowed in the eleventh digit position. This pattern allows digits that normally match the NXX NXX XXXX pattern in the first 10 positions, but does not allow digits that match the syntactic unit Lang.
- A twelve-digit calling card number with the first, eleventh, and twelfth positions treated is designated as CXXXXXXXXX1D.
  — This pattern matches only the digit 1 in the eleventh position and does not allow the digits 7 and 9 in the twelfth position.
- A twelve-digit calling card number with the first and third positions treated is designated as CX0XXXXXXXX.
  — The digits of syntactic unit N are not allowed in the fourth digit position.
- A twelve-digit calling card number with the first and fourth positions treated is designated as CXXPXXXXXXX.
  — The digits of syntactic unit N are not allowed in the fourth digit position.

Examples of valid and invalid twelve-digit calling card numbers are as follows:

- 016 596 3086 17 is valid. The 0 in the first position distinguishes the pattern from NXX NXX XXXX [Lang] because 0 is not a member of the syntactic unit N.
- 226 596 3086 17 is valid. The 2 in the second position distinguishes the pattern from NXX NXX XXXX [Lang] because 2 is not a member of the syntactic unit P.
- 216 596 3086 27 is valid. The 2 in the eleventh position distinguishes the pattern from NXX NXX XXXX [Lang] because 2 is an invalid digit for the first digit in language selection.
- 216 196 3086 17 is valid. The 1 in the fourth position distinguishes the pattern from NXX NXX XXXX [Lang] because 1 is not a member of the syntactic unit N.
- 216 596 3086 18 is invalid. The number is interpreted as a third-party number with attempted language selection.
- 210 596 3086 17 is invalid. This pattern is billed as a third-party number with calling party language selection.
- 216 596 3086 17 is invalid. This pattern is billed as a third-party number with calling party language selection.

- 116 596 3086 17 is invalid because the pattern begins with 1.

Thirteen-digit CCITT calling card number

A thirteen-digit calling card number with the first position treated is designated as CXXXXXXXXXXXX. Examples of valid and invalid thirteen digit calling card numbers are as follows:

- 0123456789012 is valid.
- 1234567890123 is invalid because the pattern begins with 1.
- 23456789011234 is valid.

Fourteen-digit CCITT calling card number

The fourteen-digit CCITT calling card number patterns are designed to avoid conflicts with patterns that contain the NXX NXX XXXX pattern and are fourteen digits in length. Examples of the syntax for fourteen-digit calling card numbers are as follows:

- A fourteen-digit calling card number with the first position treated is designated as 0XXXXXXXXXXXX.
- A fourteen-digit calling card number with the first and eleventh positions treated is designated as CXXXXXXXXXCXXX.
  - — The digit 1 is not allowed in the eleventh digit position. This pattern allows digits that normally match the NXX NXX XXXX pattern in the first ten positions, but does not allow digits that match the syntactic unit Lang in the eleventh and twelfth positions.
- A fourteen-digit calling card number with the first and thirteenth positions treated is designated as CXXXXXXXXXXXCX.
  - — The digit 1 is not allowed in the thirteenth digit position. This pattern allows digits that normally match the NXX NXX XXXX pattern in the first 10 positions followed by Lang, but does not allow digits that match the syntactic unit Lang in the thirteenth and fourteenth positions.
- A fourteen-digit calling card number with the first, thirteenth, and fourteenth positions treated is designated as CXXXXXXXXXXX1D.
  - — This pattern matches only the digit 1 in the thirteenth position and does not allow the digits 7 and 9 in the fourteenth position.
- A fourteen-digit calling card number with the first and second positions treated is designated as CNXXXXXXXXXXX.
  - — The digits of syntactic unit P are not allowed in the second digit position.
- A fourteen-digit calling card number with the first, eleventh, and twelfth positions treated is designated as CXXXXXXXXX1DXX.
  - — This pattern matches only the digit 1 in the eleventh position and does not allow the digits 7 and 9 in the twelfth position.

- A fourteen-digit calling card number with the first and third positions treated is designated as CX0XXXXXXXXXX.
  - — The digits of syntactic unit A are not allowed in the third digit position.
- A fourteen-digit calling card number with the first and fourth positions treated is designated as CXXPXXXXXXXXX.
  - — The digits of syntactic unit N are not allowed in the fourth digit position.

Examples of valid and invalid fourteen digit calling card numbers are as follows:

- 016 596 3086 1719 is valid. The 0 in the first position distinguishes the pattern from NXX NXX XXXX [Lang] [Lang] because 0 is not a member of the syntactic unit N.
- 226 596 3086 1719 is valid. The 2 in the second position distinguishes the pattern from NXX NXX XXXX [Lang] [Lang] because 2 is not a member of the syntactic unit P.
- 226 596 3086 2719 is valid. The 2 in the eleventh position distinguishes the pattern from NXX NXX XXXX [Lang] [Lang] because 2 is an invalid digit for the first digit in language selection.
- 216 596 3086 1819 is invalid. This pattern is an NXX NXX XXXX followed by an invalid front end and valid back end language.
- 216 196 3086 1719 is valid. The 1 in the fourth position distinguishes the pattern from NXX NXX XXXX [Lang] [Lang] because 1 is not a member of the syntactic unit N.
- 210 596 3086 1719 is invalid. This pattern is billed as a third-party number with calling party and billed party language selection.
- 216 596 3086 1719 is invalid. This pattern is billed as a third-party number with calling party and billed party language selection.
- 17 216 596 3086 19 is invalid. This pattern is interpreted as a third-party number that has both calling party and billed party language selection.
- 16 596 3086 1719 is invalid because the pattern begins with a 1.
- 216 596 3086 1719 is invalid because the pattern is an NXX NXX XXXX followed by valid front end and invalid back end language.

Fifteen- through twenty-three-digit CCITT calling card numbers

Examples of the syntax for fifteen- through twenty-three-digit calling card numbers are as follows:

- A fifteen-digit calling card number with the first position treated is designated as CXXXXXXXXXXXXX.
- A sixteen-digit calling card number with the first position treated is designated as CXXXXXXXXXXXXXX.
- A seventeen-digit calling card number with the first position treated is designated as CXXXXXXXXXXXXXXX.
- A eighteen-digit calling card number with the first position treated is designated as CXXXXXXXXXXXXXXXX.
- A nineteen-digit calling card number with the first position treated is designated as CXXXXXXXXXXXXXXXXX.
- A twenty-digit calling card number with the first position treated is designated as CXXXXXXXXXXXXXXXXXX.
- A twenty-one-digit calling card number with the first position treated is designated as CXXXXXXXXXXXXXXXXXXX.
- A twenty-two-digit calling card number with the first position treated is designated as CXXXXXXXXXXXXXXXXXXXX.
- A twenty-three-digit calling card number with the first position treated is designated as CXXXXXXXXXXXXXXXXXXXXX.

Examples of valid and invalid calling card numbers are as follows:

- 0 followed by any fourteen- to twenty-two-digits is a valid CCITT calling card number pattern.
- 1 followed by any fourteen- to twenty-two-digits is an invalid CCITT calling card number pattern because no CCITT pattern can begin with 1.
- 2 through 9 followed by any fourteen- to twenty-two-digits is a valid CCITT calling card number pattern.

Table 1–9 summarizes the call flow of a CCITT Calling Card call.

Table 1–9
CCITT Calling Card call flow

Step	Action
1	Collect digits at the VSN.
2	Request Validation Query is launched to the DMS if the collected digits match a valid CCITT pattern.
3	Set a timer to wait for the validation response. If it takes too long then the call is aborted.
4	Examine the result if a validation response is received upon receipt of the validation response query. If the identification numbers do not match, then ignore the result and go back and wait for another response. If the query result is billing denied, then check the retry counts. If exceeded, then inform the subscriber and continue the call. If not, reprompt for another number. If the billing result is accept, inform the subscriber and place the call.

End-of-dialing delimiter

The end-of-dialling delimiter (EODD), entered as an octothorpe, #, is an option available to the subscriber and is used during the process of keying in any digit sequence. The EODD allows the subscriber to terminate digit entry if a mistake is made without waiting for a timeout to expire. After the digits are entered, the octothorpe is used to immediately evaluate the sequence of digits.

When the octothorpe is detected, the current sequence of digits, including the octothorpe, is analyzed by matching the sequence against a set of specified patterns. If no match is found, the sequence of digits is analyzed without the octothorpe. In either instance, when a match is found, the appropriate action is taken. When no match is found, the subscriber is prompted for digit entry or the call is routed to an operator after the number of attempts allowed is exhausted.

Interactive voice features

Interactive voice features are all functions of the voice interface shared resource unit (VI SRU). Each feature is controlled by the ACPE which ensures that the function of each feature is executed at the proper time. Interactive voice features are discussed in the following paragraphs:

Speech recognition

Speech recognition is a unique feature of the VI and is used during billing acceptance. The TOPS VSN is programmed to recognize two words, yes and no.

Real-time voice recording

Real-time voice recording is also a feature of the VI. The name of the caller is recorded during the initial stage of billing service for playback to the billed party during billing acceptance. Any utterance is recorded by the TOPS VSN during the time frame allowed. If the caller speaks too soon, too long, or not at all, an error message is played and the caller is given another chance to record his or her name.

DTMF digit processing

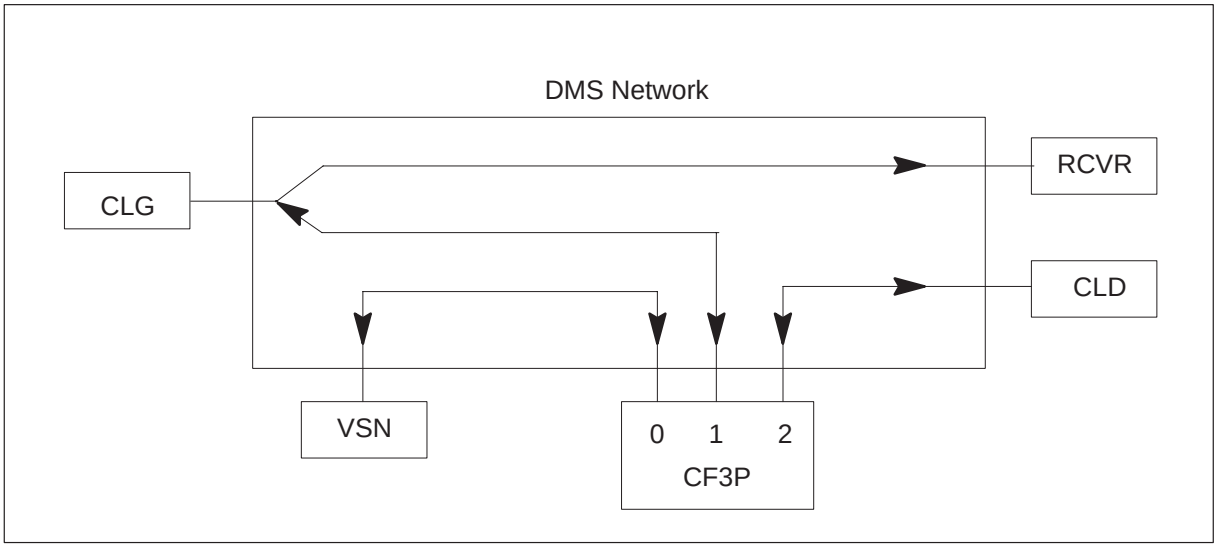
Dual tone multifrequency (DTMF) digit processing is a function of the VI. The VI is capable of decoding and interpreting tones dialed from a DTMF telephone. This capability is required for service selection tasks, for dialing the billed number for third-number billing calls, and for dialing the calling card or PIN number for calling card calls.

DTMF receiver interface

The DTMF receiver interface feature enables the VSN to determine subscriber action based on single digit input. The receiver reports single DTMF digits to the DMS which formats the digit according to AABS protocol and sends the formatted digit to the VSN for subsequent processing. The VSN establishes a one-way connection and monitors DTMF input by using a single port in the DMS network as a DTMF receiver. This receiver permits the VSN to receive DTMF input over the voice link during network progress tones, for example, busy and ring-no-answer TOPS VSN may also request that the attached receiver be detached from the call.

Figure 1–4 illustrates a DMS receiver connected to a calling party.

Figure 1–4
DMS receiver connected to a calling party



Note: CLG represents the calling party, CLD represents the called party, RCVR represents the DTMF receiver, and CF3P represents a conference 3-port circuit in Figure 1–4.

The capability to collect single digits and forward those digits to the VSN is not intended to be used to collect large digit streams, for example, directory numbers and calling card numbers. It is intended to determine subscriber action based on a single digit.

AABS and MCCS (mechanized calling card service) software packages are required for this feature.

Announcement delivery

Announcements are played to the caller and to the billed party. The purpose of the announcements may be any one of the following: instruction, error messages, information, or charge acceptance. Announcement delivery is controlled by the ACPE.

The announcements made by the TOPS VSN are divided into five groups: service selection, collect calls, third-number billing calls, calling card calls, and miscellaneous others. In a bilingual system, there is a sixth group of announcements called language selection.

DTMF billing acceptance

This feature is an enhancement to the TOPS VSN process. It gives the customer the choice of selecting speech billing acceptance, DTMF billing acceptance, or a combination of speech and DTMF billing acceptance. With the DTMF or the DTMF/speech billing acceptance option selected, the billed party is prompted for a DTMF response. The prompt responses are defined in Table 1–10.

Table 1–10
DTMF prompt response

Prompt Response	Result
1	confirms acceptance of the charges for the current call
2	refuses to pay for the current call
0	requests operator assistance (this option is not part of any prompt)

The selection of billing acceptance is made using a parameter in the user interaction table editor. This parameter, billing acceptance method, has three valid values: speech, DTMF, or both.

- Speech determines that the billed party is prompted for a speech response during the billing acceptance process.

  Note: The DTMF 2 option for refusing billing charges is valid with the DTMF and DTMF/speech options, but not with the speech only option.

- DTMF determines that the billed party is prompted for a DTMF response during the billing acceptance process.
- Both determines that the billed party is prompted for a speech response during the billing acceptance process, but a DTMF response is also recognized and accepted.

  Note: Irrespective of the value in the SDM table, the billed party can request the assistance of the operator by dialing 0.

VSN operator hand-off to AABS

This feature, an enhancement to the TOPS VSN process, allows the operator to route the billing acceptance process to the TOPS VSN.

The operator collects the service selection (collect or third-party) and the billing number, inputs the selection to the switch for acceptance, and reroutes the selection to the TOPS VSN system.

The TOPS VSN system uses the call information and the service type to initiate call handling, record the caller name, query the Locality Database, obtain billing acceptance, and request call completion. Both pulse dialed and DTMF calls can use TOPS VSN assisted call completion.

Screen code processing

The TOPS VSN system allows various actions to be applied to a call based on screening codes. These codes are defined in DMS datafill as a restricted index and passed to the VSN by the DMS. A restricted index (screening code) defined in the RESTBIL DMS table is mapped to DNs in the SPLDNID DMS table. This mapping of a screening code to DNs allows the VSN to apply special call actions based on a call's origin. For example, prison calls can be assigned an arbitrary screening code of 74 that is only allowed collect billing by the VSN.

The VSN supports three tables to specify call actions based on screening codes: Screening_Codes, Enh_Screen_Codes, and Loc_Screen_Codes. The Screening_Codes and Enh_Screen_Codes tables allow call processing to be modified for prison, collect, and third–party calls based on screening codes. The Loc_Screen_Codes table affects playback of the recorded calling party name for calls requiring Locality processing. Note that some of the screening actions defined in the Screening_Codes and Enh_Screen_Codes tables require an optional feature, Call Screening Enhancements.

The following is a summary of the VSN's screening code actions:

Screening_Code table actions:

- Prison — denotes a call as a prison (collect only) call.
- Prison_Operator — denotes a call as a prison call and routes it to a operator.
- Prison_No_Oper — blocks operator access to both prison callers (optional).
- Verify — conducts verbal billing acceptance for third party calls.
- Accept — bypasses verbal billing acceptance for third party calls.
- Operator — routes third party calls to an operator.

Enh_Screen_Codes table actions:

- Calling_No_Listen — overrides a 1–way billing accept connection to 0–way.
- BillAccept_Annc — plays the OT62 “your call may be recorded” announcement to prison callers. Requires a “prison” entry in the Screening_Codes table.
- BillAnnc_CallNoLis — forces a 0–way billing connection and plays the OT62 announcement. Requires a “prison” entry in the Screening_Codes table.

Loc_Screen_Codes table actions

- Loc_Only — play only a locality announcement to the billed party.
- Name_First — play the calling party’s recorded name followed by a locality announcement to the billed party.
- Loc_First — play a locality announcement followed by the calling party’s recorded name to the billed party.

A call can have screening actions that apply to the call defined in all three tables. For example, a screening code of 74 could be assigned to the actions Prison, BillAccept_Annc, and Loc_Only in the three tables. This call would be treated as a prison call (collect) and be played the “call recorded” announcement, and the billed party would hear only hear a locality announcement. No name would be recorded for the calling party. (For datafill details, see *System Administration and Maintenance Operating Procedures*, 450–1301–310.)

Optional features

The VSN provides the following optional features. (For datafill and installation details, see *System Administration and Maintenance Operating Procedures*, 450–1301–310.)

- VSN00005 (Custom Branding): Allows the VSN to play telephone company brands based on DNs or CIC codes. This enables IECs and IOCs receiving AABS services from another provider to have their company brand played on a per–call basis.
- VSN00006 (Call Screening Enhancements): Extends the use of screening codes to control billing acceptance connections, to block operator access for prison calls, and to play a "your call may be recorded" prompt during prison calls.
- VABS0001 (MDS Eligibility Screening): Determines a call's eligibility for Message Delivery Service (MDS) based on DNs and screening codes. This information is passed to the DMS. MDS–eligible calls that result in an Ring No Answer or Busy condition receive an MDS service offer from the DMS. Callers dialing "*" are routed to an MDS system for message recording and delivery. This VSN feature requires the DMS feature ENSV0013 to be SOC'd on prior to VABS0001 activation.

Automated T1 switchover

The base configuration of the VSN is one nonstandby link on a 24-channel system, or two nonstandby links on a 48-channel system, with one 24-channel standby link included for both 24- and 48-channel systems.

When a failure occurs on one of the nonstandby T1 links, calls on the failed link are lost and new calls are automatically switched to the standby link. When the failed link recovers, it resumes handling call activity. When calls on the standby link (originated during the failed link down time) terminate, the standby link resumes its standby status if no other nonstandby links have gone down in the interim. If another link has failed before the first failure is resolved, the standby link retains its calling activity capacity until the second failure is resolved.

The standby link assumes the channel configuration of the failed link.

If all nonstandby links are again operational, the standby link becomes available for voice traffic only when another link failure on a nonstandby link occurs.

Link states for Automated T1 Link Switchover

Table 1–11 defines valid link states relevant to the Automated T1 Link Switchover feature.

Table 1–11
Link states for Automated T1 Link Switchover

Link state	Definition
In-service	The link is available for voice traffic. This state is valid only on nonstandby link.
SRU Faulty	The DVS Resource Manager has reported that a critical error has occurred on the T1 SRU and is in a nonfunctional state. This state is valid on both standby and nonstandby links.
Sybusy	No voice traffic is permitted on the link due to a link failure such as a disconnected cable. This state is valid on both standby and nonstandby links.
Standby Busied Out	Link is configured as a standby link ready to take over in case of a link failure. This state is only valid for the standby link.
Standby In-service	Link is configured as standby link and has assumed the calling capacity of a failed T1 link. This state is only valid for standby link.
Standby Pending	This state occurs when a standby link has taken over for a failed nonstandby link, and the latter has recovered but still has active calls. Once all calls on the standby link complete, it moves to standby Busied Out. This state is only valid on the standby link.

Channel states

Table 1–12 defines channel states relevant to the Automated T1 Switchover feature.

Table 1–12
Channel states for Automated T1 Switchover

Channel state	Definition
In-service CP_Idle	The channel is in service but not handling a call. This state is valid for both the standby and nonstandby links.
In-service CP_Busy	The channel is in service and is handling a call. This state is valid for both the standby and nonstandby link.
System busy	The channel state is system busy when the link state is system busy. This state is valid for both standby and nonstandby links.
Standby	The state of a channel is Standby when the state of the link is Standby Busied Out. To the DMS these channels appear as Remote Make Busy trunks and the DMS does not select them for voice traffic. A channel in Standby may not be moved to any other state in T1 Maintenance. This state is valid only on the standby link.
Standby Pending	When a link is moving from Standby In-service to Standby Busied Out, channels with active calls are placed in the Standby Pending state until they complete. When a call on a channel in the Standby Pending state completes, it moves to Standby. This state is valid only on the standby link.

State behavior of the dynamic T1 switchover feature

When functional nonstandby links initialize, they are in the In-service state and all 24 channels are typically in the In-service CP_Idle state. The DMS-200 can select any of these channels for VSN calls. The standby link on the VSN side is set to the Standby Busied Out state and the channels are set to the Standby state. To the DMS, the channels appear as Remote Make Busy trunks and are not selected for VSN calls.

When a switchover occurs, the standby link moves to the Standby In-service state. The channels on the standby link assume the states of the channels on the failed link. For example, if channels 4, 8, and 10 on the failed link are ManBusy, those corresponding channels on the standby link are also ManBusy.

When the failed channel recovers, the standby link moves to Standby Pending until all active calls are released, and then moves to Standby Busied Out. The channels move to Standby Pending if carrying an active call; if not, to their configured state (normally Standby).

If another nonstandby link has failed, the standby link remains in Standby In-service. The channels assume the working configuration of the failed link. Channels carrying active calls that must move to nonactive states (ManBusy or Off-line) move to the corresponding Pending state for that active state. Once the call is complete, it moves to the appropriate nonactive state.

Switchover-producing events

T1 SRU events may cause a switchover action to occur (for example, cause a standby link to assume or relinquish calling activity) as follows.

Table 1–13
Switchover-producing events and results

Event	Result
An In-service T1 SRU moves to the DVS Resource Manager state of Faulty.	The standby link assumes the calling capacity of the failed T1 SRU.
A T1 SRU reports itself operational or is reconnected. The switchover logic is entered to possibly handle two cases:	If the link was a standby link it may need to assume the calling capacity of a Faulty or System busy nonstandby link. If the link was a nonstandby link and the standby link has assumed its calling capacity, the latter returns to Standby Busied Out if no other nonstandby links are inoperative. If another link is inoperative, the standby link remains in the Standby In-service state and assumes the working configuration of the failed link.
A link becomes disconnected.	The link moves to the Sysbusy state. If the link was a nonstandby link, the standby link assumes its calling capacity. Configuration data is entered because a standby link or nonstandby link may have been configured or reconfigured.
A link is in the Standby Pending state and a channel is deallocated on that link (voice connection dropped and call cleared), or the deallocated channel is the last Standby Pending channel on the link.	The link moves to the Standby Busied Out state.

Switchover characteristics

Channels on a Standby In-service link behave exactly like channels behave on a nonstandby In-service link (for example, an In-service channel may go from In–service CP_Idle to In-service CP_Busy to In-service CP_Idle on both a standby and a nonstandby link. The possible channel state cycles are

unaffected, other than the inclusion of pending states into the cycle for standby channels.

The T1 switchover feature is transparent to the DMS, which does not know if it is selecting a channel on a standby or a nonstandby link.

Locality call processing support

Locality call processing support automates billing services, for station-to-station collect and third-number calls, without recording the name of the billing party.

When this feature is installed together with the Locality Database, the operating company has the option of playing a prerecorded message containing the location of the caller to the billed party instead of the billing name or default message (for collect and third-number calls).

This feature gives the operating company a number of different locality treatments and options. The treatment and options feature uses one of the following methods to handle calls that warrant locality treatment.)

Options:

- Locality can be turned off so that calls are handled in the usual way.
- The locality check can be turned on, so that all incoming calls requiring a billed party acceptance are checked for a locality prompt. This check is carried out on the calling dialling number (DN).
- The locality check can be partially turned on so that all incoming calls requiring a billed party acceptance and whose screening code matches that of the operating company screening code are checked for a locality prompt. This check is carried out on the calling DN.

Treatments:

- The calling party locality prompt is played to the billed party to obtain billing acceptance.
- A standard prompt is played to the billed party if a locality prompt exists but is not available to the TOPS VSN system. One of the following values applies to the locality default prompt:
  - all
  - prison (the call originated from a prison)
  - nonprison (the call did not originate from a prison)

  Note: An existing locality prompt is not available to the TOPS VSN system if the Locality Database is busy during the installation of prompts or saving prompts, or if the prompt is in the nonworking state.

- The call is routed to the operator if a locality prompt exists but is not available to the TOPS VSN system. One of the following conditions applies to the value in the field Loc_Default_Prompt in the User Interaction table:
  - — the value is none
  - — the value is nonprison and the call originated from a prison
  - — the value is prison and the call did not originate from a prison
- The call is processed as a nonlocality call when the calling DN is not associated with any locality prompt.

Result of Locality Database failure

If the line database fails, all incoming calls are treated as locality calls. The call treatment is as follows according to the value that is datafilled in the User Interaction table:

- Locality_Check field value is all: all calls are considered to be locality calls and are treated according to the datafill that is in the Loc_Default_Prompt field.
- Locality_Check field value is screen: all calls having a screening code that is datafilled in the Loc_Screen_Codes table are considered to be locality calls and are treated according to the datafill that is in the Loc_Default_Prompt field.

If the failure is expected to last for an extended period, the customer may decide to reconfigure the TOPS VSN system as specified in Procedure 1–1 to ensure that calls can be processed as if the feature is active. Care should be taken to record the previous parameter value so that it can be restored to the database when the line data base is returned to service.

Procedure 1–1
System reconfiguration

Step	Action
1	Change the datafill of parameter Locality_Check in the User Interaction table to none. This turns off the Locality Call Prompting Support after the ACPEs are rebooted (Step 3).
2	Change the datafill of the prison screening codes in the Screening Codes table to Prison_Operator. This routes restricted calls to the operator after the ACPEs are rebooted.
3	Reboot both ACPEs to load the new datafill.

After the Locality Database is restored to service, the previous TOPS VSN system configuration is re-established by repeating Procedure 1–1; Steps 1 and 2 use the original datafill.

Locality Database

The Locality Database together with the locality call processing support feature determines the contents of the announcements presented to the billed party.

When the system is not equipped with a Locality Database, the office parameter Locality_Check in the User Interaction table is set to none. In this case the operating company can use either name recording or a standard message that is provided with TOPS VSN for billing verification.

Locality Database contents

The Locality Database contains announcements that are mapped to the directory number (DN) of the originating station. There is one announcement for each match or complete DN.

When a call is originated, all of the digits of the calling DN are available. When the Locality Database is queried, the entry in the database which best matches the calling DN is selected. If no match is found by the matching criteria, the call is assumed to be a nonlocality call and is handled accordingly.

The matching criteria in the database is as follows: the dialed digits are scanned sequentially from the first digit until the first incorrect digit is encountered, or an exact match is found. The number of digits prior to the first incorrect digit is the number of digits used to determine the announcement that is used. A wild card X can be used to match any digit.

In a bilingual system, the Locality Database also has the ability to map directory numbers to a language preference. Language preference determines how the customer interaction will proceed. The customer interaction can be in English only, English followed by French, or French followed by English. If the customer interaction is to be determined by the calling party, then it must be determined which language is played first in the bilingual greeting prompt, as well as any other bilingual prompts. (See Dual Language MMI).

The ACPE interface allows the ACPE to request a specific language version of the announcement mapped the given DN, if any. It also allows the ACPE to request a language preference mapped to the given DN, if any (in a bilingual system only).

For a bilingual load, use the mappings described in Table 1–14.

Table 1–14
Mapping for a bilingual load

Dialing number	Language preference
919–8XX–XXXX	—> Announcement A —> no language preference defined
919–991–1XXX	Announcement B language preference ENG_FRE
919–991–2222	language preference FRE_ENG
919–991–3XXX	language preference ENG

Calls from the DNs listed in Table 1–15 result in the selection of announcements, interaction preference, or both.

Table 1–15
Announcements and interaction preference

Dialing number	Announcement and interaction preference
919–8741212	—> Announcement A —> language preference is based on parameter System_Lang in the Bilingual Interaction table
919–991–1234	Announcement B language preference ENG_FRE calling and billed party interaction is determined by the calling party
919–991–2222	language preference FRE_ENG calling and billed party interaction is determined by the calling party
919–991–3210	language preference ENG calling and billed party interaction is in English only

User interface

The operating company can make changes to the database using menu items at the TOPS VSN display. All changes take effect only after the changes have been saved to the disk. The functions available to the operating company for managing the Locality Database are defined in Table 1–16.

Table 1–16
Locality Database management functions

Function	Definition
Add or change	This function is used to add or change a mapping between a DN and a prompt in the database. Add only and add and replace are supported. – If the DN is currently in the database when add only is used, an error response is presented. – If add and replace is used, the DN is added to the database (if it does not exist there), or the existing DN in the database is replaced. – Additions and changes take effect after the save operation is performed.
Delete	This function is used to delete a mapping between a DN and a prompt from the database.
List or page entries	These functions are used to retrieve database items starting from a given DN. Two functions are available: list forward and list backward.
Save	This function is used to save the database contents stored in the memory to a disk.

—continued—

Table 1–16
Locality Database management functions (continued)

Function	Definition
Archive	This function is used to archive the database onto tape. The archive includes the database image and the current version of the locality prompts stored on disk. The option to automatically save the current memory version of the database before the archive begins is also available. Naming of archives is automatic. The name is of the form LocArchive.xxxx, where xxxx is an issue number. Each archive is numbered sequentially, beginning with 0001. The issue number will roll over from 9999 to 0001 if the occasion ever occurs.
Restore	This function is used to restore an archive from tape to disk. The restoration includes the database image and the locality prompts. The restore function attempts to avoid conflict with the application call processing engine (ACPE) by loading the database image into temporary storage in the memory (if there is space in the memory). The version that the ACPE is using will then be changed to the new database image. If memory resources are not available, the database image cannot be put into temporary storage and is exchanged for the redundant one. During this exchange the ACPE does not have database access while the database is being loaded into memory.

End

Locality print softkey

The Locality Database is printed using a locality print softkey. The listing is generated and printed automatically. Printing is cancelled by pressing the <Cancel Print> softkey while in the Locality Database MMI or, after the listing is spooled to the printer queue, by exiting the MMI and using the printer queues utilities which are accessed from the main menu.

The locality print softkey provides the ability to print a listing of the contents of the Locality Database of a unilingual or bilingual VSN system. The listing contains the following information:

- site ID
- VSN ID
- directory numbers
- announcement labels

- comments
- custom brand
- language versions (bilingual VSN only)
- language preferences (bilingual VSN only)

Changes made to the Locality Database during printing

Changes made to the Locality Database are written to the database in memory when the <Save> or <Save and Archive> softkeys are pressed. When the <Restore Archive> softkey is pressed the database being restored is written to memory. The Locality Database listing is generated from the same database to which changes are written.

Before the Locality Database is printed, the data is formatted for printing, written to a temporary file, spooled to the printer queue, and then printed. In this document, the process of formatting the data, writing it to the temporary file, and spooling it to the printer is referred to as taking a snapshot.

The <Save>, <Save and Archive>, and <Restore Archive> softkeys are temporarily disabled after the <Print> softkey is pressed so that no changes are committed to the database until a snapshot of the database is taken. To avoid an exit attempt after changes are made that need to be saved, the <Exit> softkey is temporarily disabled as well. Once the snapshot is complete, the <Save>, <Save and Archive>, <Restore Archive>, and <Exit> softkeys are reenabled.

Changes to the Locality Database may be made anytime after pressing the <Print> softkey, but may not be saved until a snapshot is taken. Likewise, the restore archive and exit functions cannot be invoked until a snapshot is taken.

Taking a snapshot of the Locality Database requires approximately twenty seconds for every one-thousand entries that are in the database. Printing the database requires approximately 4 minutes for every one-thousand entries.

> ***Note:*** The printout reflects the database as it was at the time that the <Print> softkey was pressed.

Prompt manager

The prompt manager must receive permission from the Locality Database before installing a new version of the locality prompt set. A preinstallation check is done by the prompt manager which rejects the installation if the new set is missing any prompts assigned to DNs in the Locality Database. When permission is granted to the prompt manager, the new prompt set is written to the disk version of the locality prompt list. If permission is not granted, the prompt manager cannot continue with the installation in process.

When the new prompt list is installed, the prompt manager informs the Locality Database that the installation was successful.

No Locality Database modifications can be made during the installation sequence. They are blocked after receiving the preinstallation input, and the prompt manager has been given permission to proceed. All operations except exit are inoperative during the installation. The block is lifted when the install response has been made. If the prompt manager fails to return an installation response, a timeout prevents the MMI interface from being blocked.

Locality Database restrictions

The Locality Database can contain a maximum of 75,000 nodes. This results in a minimum of 12,600 links between DNs and announcements. A node entry can be between one digit and 10 digits. The disk image of the Locality Database is only accessed when the PRU is booted or by the reload command.

A node is the structure that holds the information mapped to a DN. The size of a node is 46 bytes and the maximum space available to the Locality Database is 3.45 Mbytes, the maximum number of Locality Database nodes was set to 75,000 (3,450 / 46). A link is mapping between a DN and an announcement. The Locality Database supports 12,000 links if all DN are 10 digits and each DN is unique (for example, all 10 digits are unique).

Name Plus Locality

Name Plus Locality is an enhancement to locality call processing. The operating companies are provided with the option to present the calling party name, in addition to the location of the calling party, to the billed party during billing verification of locality calls.

The calling party is identified to the billed party in one of the three following ways for collect and third-number billing calls:

- The name of the calling party is recorded and played back to the billed party.
- A standard recording is played to the billed party.
- The calling party location is announced using a prerecorded locality prompt which is associated with several or all of the digits of the caller directory number.

A set of voice announcements is used to instruct and prompt the calling and billed parties throughout the billing verification interaction. Speech recognition on the words yes and no indicates billing acceptance or rejection. Pressing 1 also indicates billing acceptance and hanging up also indicates billing refusal.

Name Plus Locality is determined through datafill in the Loc_Screen_Codes table (see page 1-58) and operates in conjunction with locality checking. When the Name Plus Locality mode parameter in the Loc_Screen_Codes table is datafilled with Name_First or Loc_First, and if a locality prompt exists for the calling directory number, the calling party name is recorded and both the name and locality prompt are presented to the billed party during billing verification.

Locality_Check in the User Interaction table

Call flow is determined by datafill in the Locality_Check parameter in the User Interaction table. The three datafill choices are as follows:

- none
- screen
- all

Locality_Check set to none

When Locality_Check is set to none, locality is turned off. No locality database query is performed. All calls requiring billing verification are processed according to the value of the name recording parameters. Either the calling party name is recorded, or a default prompt is played to the billed party during billing acceptance. Name Plus Locality is ignored when Locality_Check is set to none.

Locality_Check set to screen

When Locality_Check is set to screen, locality is partially turned on. A locality database query is performed only for calls that need billing verification and have a screening code that matches a datafilled screening code in the Loc_Screen_Codes table.

The operating company datafills the screening codes that receive a locality treatment and sets the Name Plus Locality mode to Name_First, Loc_First, or Loc_Only for each screening code in the Loc_Screen_Codes table.

When Locality_Check is set to screen, Name Plus Locality mode applies to all calls using a locality prompt for billing acceptance that also have an associated screening code. Thus, Name Plus Locality can operate in different modes for calls that have different screening codes.

When Locality_Check is set to screen and a call is processed, the Loc_Screen_Codes table is checked to determine if the call screening code is listed. If the code is listed, a locality database query is launched. If a locality prompt is found, the prompt may or may not be available to the TOPS VSN. The call process for a call with a locality prompt that is available to the TOPS VSN is different than the call process for a call with a locality prompt that is not available to the TOPS VSN.

If the locality prompt is available to the TOPS VSN, the call process is as follows:

1 A database query is launched.

2 A prompt, which is available to the TOPS VSN, is found for the calling party directory number.

3 The Loc_Screen_Codes table is checked to determine which Name Plus Locality mode is datafilled for the associated screening code.

   — If the Name Plus Locality mode is set to Loc_Only, the call is processed as if the Name Plus Locality feature does not exist. Only the locality prompt is presented to the billed party during billing verification.

   — If the Name Plus Locality mode is set to Name_First, the calling party is prompted to record his or her name. The message presented to the billed party during billing verification consists of the recorded name followed by the locality prompt.

   — If the Name Plus Locality mode is set to Loc_First, the calling party is prompted to record his or her name. The message presented to the billed party during billing verification consists of the locality prompt followed by the recorded name.

If the locality prompt is unavailable to the TOPS VSN, the call process flow is as follows:

1 A database query is launched.

2 A prompt, which is unavailable to the TOPS VSN, is found for the calling party directory number.

3 The Loc_Screen_Codes table is checked to determine which Name Plus Locality mode is datafilled for the associated screening code.

- If the Name Plus Locality mode is set to Loc_Only, the call is processed as if the Name Plus Locality feature does not exist. The call is completed according to the datafill in parameter Loc_Default_Prompt in the User Interaction table. Either the call routes to an operator, or a default prompt is presented to the billed party during billing verification.
- If the Name Plus Locality mode is set to Name_First, the calling party is prompted to record his or her name before the TOPS VSN determines that the prompt for the locality call is not available. The call is completed according to the datafill in parameter Loc_Default_Prompt in the User Interaction table. Either the call routes to an operator, or a default prompt is played. If the default prompt is played, the recorded name is presented to the billed party after the default prompt during billing verification.
- If the Name Plus Locality mode is set to Loc_First, the calling party is prompted to record his or her name before the TOPS VSN determines that the prompt for the locality call is not available. The call is completed according to the datafill in parameter Loc_Default_Prompt in the User Interaction table. Either the call routes to an operator, or a default prompt is played. If the default prompt is played, the recorded name is presented to the billed party after the default prompt during billing verification.

Note: When the default prompt must be played and Name Plus Locality is turned on, the recorded name always follows the default prompt, regardless of the Name Plus Locality mode.

If the call screening code is not in the Loc_Screen_Codes table, or if no prompt is found, the call is processed according to the name recording parameters.

Locality_Check set to all

When Locality_Check is set to all, locality is turned fully on. A locality database query is performed for all calls that need billing verification and the mode datafilled for the Name Plus Locality feature applies to all calls using a locality prompt for billing acceptance.

There are two possible process flows that can occur when Locality_Check is set to all. The database is queried for a locality prompt for the calling party directory number. If a locality prompt is found, the prompt may or may not be available to the TOPS VSN. The call process for a call with a locality prompt that is available to the TOPS VSN is different than the call process for a call with a locality prompt that is not available to the TOPS VSN.

If the prompt is available to the TOPS VSN, the call process flow is as follows:

1 A database query is launched.

2 A prompt, which is available to the TOPS VSN, is found for the calling party directory number.

3 The Loc_Screen_Codes table is checked to determine which Name Plus Locality mode is datafilled with the screening code –1. This code defines how to continue call processing.

   — If the Name Plus Locality mode is Loc_Only, calls are processed as if the Name Plus Locality feature does not exist. Only the locality prompt is presented to the billed party during billing verification.

   — If the Name Plus Locality mode is Name_First, the calling party is prompted to record his or her name. The message presented to the billed party during billing verification is comprised of the calling party name followed by the locality prompt.

   — If the Name Plus Locality mode is Loc_First, the calling party is prompted to record his or her name. The message presented to the billed party during billing verification is comprised of the locality prompt followed by the calling party name.

If the locality prompt is unavailable to the TOPS VSN, the process flow is as follows:

1 A database query is launched.

2 A prompt, which is unavailable to the TOPS VSN, is found for the calling party directory number.

3 The Loc_Screen_Codes table is checked to determine which Name Plus Locality mode is datafilled with the screening code –1. This code defines how to continue call processing.

— If the Name Plus Locality mode is Loc_Only, calls are processed as if the Name Plus locality feature does not exist. The call is completed according to the datafill in parameter Loc_Default_Prompt in the User Interaction table. Either the call routes to an operator or a default prompt is presented to the billed party during billing verification.

— If the Name Plus Locality mode is Name_First and no prompt is found, the call is processed according to the name recording parameters. The calling party is prompted to record his or her name before the TOPS VSN determines that the locality call is not available. The call is completed according to the datafill in parameter Loc_Default_Prompt. Either the call routes to an operator or a default prompt is played. If the default prompt is played, the recorded name is presented to the billed party after the default prompt during billing verification.

— If the Name Plus Locality mode is Loc_First, the calling party is prompted to record his or her name before the TOPS VSN determines that the locality call is not available. The call is completed according to the datafill in parameter Loc_Default_Prompt. Either the call routes to an operator or a default prompt is played. If the default prompt is played, the recorded name is presented to the billed party after the default prompt during billing verification.

Note: When the default prompt must be played and Name Plus Locality is turned on, the recorded name always follows the default prompt, regardless of the Name Plus Locality mode.

Name Plus Locality enhances locality call processing

The following is a brief description of how Name Plus Locality enhances locality call processing. The calls referred to are assumed to be incoming calls requiring billed subscriber acceptance.

- If Locality_Checking is set to none in the User Interaction table, no search for a locality prompt is made. The call is processed using the name recording parameters. Name Plus Locality does not effect call processing.

- If Locality_Checking is set to screen in the User Interaction table and the screening code matches a code in the Loc_Screen_Codes table, a search for a locality prompt is made. If no prompt is found, the call is processed using name recording parameters. If a locality prompt is found, Name Plus Locality is checked. If the Name Plus Locality mode parameter in the Loc_Screen_Codes table is datafilled with Loc_Only, the call is processed using the locality prompt only. If the Name Plus Locality mode parameter in the Loc_Screen_Codes table is datafilled with Name_First or Loc_First, the caller name is recorded and the call is processed using both the locality prompt and the recorded name.
- If Locality_Checking is set to all, a search for a locality prompt is performed. If no prompt is found, the call is processed using the name recording parameters. If a locality prompt is found, Name Plus Locality is checked. If the Name Plus Locality mode parameter in the Loc_Screen_Codes table is datafilled with Loc_Only, the call is processed using the locality prompt only. If the Name Plus Locality mode parameter in the Loc_Screen_Codes table is datafilled with Name_First or Loc_First, the caller name is recorded and the call is processed using the locality prompt and the recorded name.

Loc_Screen_Codes table

The format of the Loc_Screen_Codes table is shown below with some example entries.

Table 1–17
Loc_Screen_Codes table format

Locality Screening Codes	Name Plus Locality mode
–1	Loc_Only
74	Loc_Only

Locality Screening Codes

The Locality Screening Codes parameter in the Loc_Screen_Codes table is datafilled with the locality screening codes for which a locality database query is made and a subsequent locality treatment applied. Valid values for the Locality Screening Codes parameter are –1 through 99.

The default values for the Locality Screening Codes parameter are –1 and 74. Name Plus Locality is associated with the –1 screening code when Locality_Check is set to all, regardless of the screening code that is actually associated with the call. The number 74 is often used to identify prison calls.

Name Plus Locality mode

The Name Plus Locality mode parameter is used to enter the mode of operation. The three modes of operation are locality only, name first, and locality first.

The following values are used to represent the mode of operation:

- Loc_Only (only locality is presented)
- Name_First (the caller name is presented first)
- Loc_First (the caller location is presented first)

The default value for the Name Plus Locality mode parameter is Loc_Only.

Structure of locality prompts

The messages for Name Plus Locality can be viewed as having three components. The components are slightly different, depending on whether Name Plus Locality is operating in the name first mode or the locality first mode.

Name first

The first component of the name first mode informs the billed party that a call is being charged to his or her directory number. The second component is the caller recorded name. The third component is the preposition and the locality prompt recorded together, with the preposition preceding the prompt. The result is the following message:

"you have a collect call from" "Jane Doe" " from/at/of County Jail"

1 2 3

Locality first

The first component of the locality first mode informs the billed party that a call is being charged to his or her directory number. The second component is the locality prompt and preposition recorded together, with the prompt preceding the preposition. The third component is the caller recorded name. The result is the following message:

"you have a collect call from" "County Jail from" "Jane Doe"

1 2 3

For either mode, the preposition may be omitted altogether. The decisions of whether to use prepositions or not and which propositions to use are determined by the operating company.

Structure of default prompts

The following applies to both Locality_Check = all and Locality_Check = screen: When the locality prompt is not available, the default prompt that is played when the Name Plus Locality mode is Loc_Only is different than the prompt that is played when the Name Plus Locality mode is Name_First or Loc_First; the prompt that is played when the Name Plus Locality mode is Loc_Only is similar to the following example:

"You have a collect call. Will you accept the charges?"

When Name Plus Locality mode is Name_First or Loc_First, the default prompt that is played is similar to the following example:

"You have a collect call." "<recorded name>" "Will you accept the charges?"

> ***Note:*** The recorded name is played after the default prompt, regardless of whether Name Plus Locality is Name_First or Loc_First.

Precautions for recording locality prompts

Recording the preposition with each individual locality prompt provides the flexibility to tailor the preposition used for the particular prompt to the prompt itself. For example, the preposition *of* may be used as in the following: "You have a collect call from" "John Doe" "*of* State College".

The preposition *from* may be used as illustrated in the following example:
"You have a collect call *from*" "Jane Doe" "*from* County Jail"
"You have a collect call *from*" "County Jail *from*" "Jane Doe"

The preposition may be completely omitted as in the following prompt:
"You have a collect call from" "Joe Doe" "City Hospital"

Care must be taken to ensure that a locality prompt recorded with the intention of using it with the Name Plus Locality feature is not used as a locality prompt by itself. This could result in a confusing message presented to the billed party as follows: "You have a collect call *from*" "*from* County Jail"

Locality prompts recorded without a preposition could be used alone or with Name Plus Locality.

> ***Note:*** If locality is already in service, upgrading locality to include the Name Plus Locality feature may require replacing some or all of the locality prompts with locality prompts that include a preposition. Switching between the Name Plus Locality modes may also require replacing some or all of the locality prompts. The exceptions are if the Locality Only option is used initially, or if no preposition is used. In these two cases, no prompt changes are required.

Real-time impact

Name first and locality first mode impact the real-time processing of a call. If name first or locality first are datafilled in the Name Plus Locality mode parameter, the average length of a call increases by approximately 2.5 seconds, which is the time it takes to play back the calling party name.

> ***Note:*** The real-time increase of 2.5 seconds for each call is an average. The maximum amount of time that is allotted for name recording is 5.0 seconds, therefore, the length of a call could increase by up to 5.0 seconds. The amount of time allotted for name recording is controlled by the datafill in parameter Name_Record_Duration in the User Interaction table.

Custom Branding

Custom branding allows telephone companies handling AABS services for Interexchange Carriers (IEC) and Independent Telephone Companies (IOC) to identify the IEC or IOC in announcements to callers and billed parties. These custom branded announcements can be made at points where a welcome message or a thank you message is played in a call flow. The custom brand used is determined through comparing the carrier identification code (CIC) or the caller's directory number (DN) with the datafill on the VSN system. If the custom brand cannot be located in the VSN system, the system brand is played instead.

To use custom branding, the Custom Brands, Carrier Brands, and Locality Database tables must be datafilled. In addition, custom branding prompts must be built.

Carrier brand identification

IECs that are eligible for custom branding treatment are identified in the Carrier Brand table. Each tuple in the table associates a CIC with a brand index. When a CIC is passed from a TOPS DMS switch to the VSN, the CIC is used to locate the brand index that is, in turn, used to locate the appropriate custom brand announcements in the Custom Brands table. Figure 1–5 is an example of the Carrier Brands table. For information on updating this table, refer to the "Carrier Brands table" section in Chapter 3 of NTP 450–1301–310.

Figure 1–5
Example Carrier Brands table tuples

Carrier Code	Brand Index	Description
1234	2	XYZ IOC
4321	1	ABC IEC

Directory number identification

If no carrier code is provided or is not datafilled to receive custom branding, directory numbers eligible for custom branding treatment are checked in the Locality Database table. (The table is not checked if the carrier code is datafilled to receive custom branding.) Each custom branding tuple in the table associates a directory number or range of directory numbers with a brand index. When a directory number is passed from a TOPS DMS switch to the VSN, the directory number is used to locate the brand index that is, in turn, used to locate the appropriate custom brand announcements in the Custom Brands table.

Custom branding announcements

Which custom branding announcements are to be played in a call flow are indicated in the Custom Brands table. Each tuple in the table is identified by a brand index which corresponds to a brand index in the Carrier Brands or Locality Database table. Figure 1–6 is an example of the Custom Brands table. For information on updating this table, refer to the "Custom Brands table" section in Chapter 3 of NTP 450–1301–310.

Custom branding prompt names must be unique in the system. They cannot have the same name as any prompt in the Prompts or French_Prompts tables. In addition, the words "BRAND," "RECORDED," and "LOCALITY" are reserved words that cannot be used as custom branding prompt names.

Figure 1–6
Example Custom Brands table tuples

Brand Index	Description	Calling Welcome	Billed Welcome	Thank You
1	ABC IEC	ABC–1	ABC–2	ABC–1
2	XYZ IOC	XYZ–1	XYZ–1	

Building custom branding prompts

Custom branding prompts are built using the Prompts and French_Prompts tables. All prompts that may be datafilled for custom branding are defined in these tables. They have the same names as the system branding prompts with "_CB" on the end. The following custom branding prompts are available:

- **SS0_CB** – Calling welcome
- **OT0_CB** – Billed welcome
- **OT12_CB** – Thank you
- **OT46_CB** – Thank you
- **AC4_CB** – Account code billing thank you
- **CS1_CB** – Collect call thank you
- **TP8_CB** – Bill to Third thank you
- **SS24_CB** – Morning welcome (not currently used)
- **SS25_CB** – Afternoon welcome (not currently used)
- **SS26_CB** – Evening welcome (not currently used)

To build a custom branding prompt, the introductory, concluding, and brand prompt segments must be assigned to a branding prompt identifier (listed above). Any combination of introduction, conclusion, and brand segments may be used for each custom branding prompt. Figure 1–7 is an example of the Prompts table.

Figure 1–7
Example Prompts table tuples

Prompt Name	Prompt 1	Silence 1	Prompt 2	Silence 2	Prompt 3	Silence 3	... ...
SS0	SS–0	0		0		0	... ...
SS0_CB	SS–0–1	5	BRAND	0		0	... ...
OT0	OT–0	0		0		0	... ...
OT0_CB	OT–0–I	5	BRAND	5	OT–0–C	0	... ...

The following procedure shows you how to build a branding prompt:

Procedure 1–2
Building a Branding Prompt

Step	Action
1	Edit the entry in the Prompts table that needs to be changed. Custom branding is only proved for the prompts listed previously in this section.
2	If the custom branding announcement that will be used has an introduction segment (for example, “Welcome to”), datafill its name as Prompt1. Refer to NTP 450–1301–103 (U.S. prompts) or 450–1301–105 (Canadian prompts) for available prompt segments.
3	If the brand segment should be played next, datafill the next Prompt field will the special segment name “BRAND”. This segment is a placeholder that will be replaced with the actual custom brand segment for each call that receives custom branding.
4	If the custom branding announcement that will be used has a concluding segment (for example, “Automated Operator Services”), datafill its name in the next Prompt field. Refer to NTP 450–1301–103 (U.S. prompts) or 450–1301–105 (Canadian prompts) for available prompt segments.
5	It may be necessary to datafill silence between the prompt segments for the prompts to flow smoothly. If so, datafill the Silence fields between the Prompt fields with the appropriate value.
6	If you have a bilingual system, return to step 1 and edit the French_Prompts table instead of the Prompts table. It is permissible for the English and French custom branding prompts to differ.
7	When you are ready to put the changes in the Prompts and French_Prompts tables into effect, reboot the ACPE PRU(s).

VSN Enhancements for MDS Screening Restrictions

The VSN Enhancements for MDS Screening Restrictions feature provides restrictive screening enhancements to the TOPS VSN system software. These restrictive screening enhancements support the Message Delivery System (MDS) which enables operating companies to provide a message delivery service for incomplete calls, such as busy and no-answer. MDS is offered as a pay-as-you-go service that is initially targeted for the 0+ and 0– market.

All qualified 0+ and 0– calls are routed to the AABS for automated processing. MDS uses the AABS equipment to offer the message delivery service. For calling and bill-to-third calls, the AABS prompts the caller to dial star (*) to invoke MDS if the called party is not reached. The call is then routed to the DMS where the subscriber actions are monitored and routed to the MDS service if a star is dialled. For collect calls, the AABS informs the caller to wait for acceptance by the called party and to dial star

(*) to access MDS if the party is not reached. When the caller dials star (*) before the called party is reached, the caller is directly routed to the MDS service.

Call routing is determined by the TOPS Queue Management System. A zero or a hookflash routes the caller to an attendant with Toll and Assist capability before MDS service is offered. After MDS service is offered, a zero or hookflash routes the caller to an attendant with MDS capability.

The DMS feature AF5009 TOPS Enhancements for MDS is required for the implementation of MDS. The MDS capability does not, however, affect VSN functionality but interacts with the VSN as an additional function.

MDS service restrictions

There are four restrictions which enable the operating company to limit MDS service and prevent potential fraud. MDS service is only offered if all four restrictions are passed. These restrictions are controlled by datafill in the TOPS VSN Service Data Manger (SDM) tables and are listed as follows:

- screening code restrictions
- billing code restrictions
- locality restrictions
- overseas restrictions

Note: Subscribers not offered MDS service experience no change in VSN functionality.

Screening code restrictions A field in the Screening Codes table is used to restrict MDS service based on the current screening codes. MDS service is only offered if the associated screening code is unrestricted.

Billing code restrictions The MDS feature is activated for a selected billing method. The valid billing methods are calling card, bill-to-third, and collect. Specific billing methods are restricted from MDS service by parameters in the User Interaction table.

Locality restrictions A one-character field in the Locality Database provides four separate MDS restrictions for both calling and called numbers. The four restrictions are defined as follows:

- The character 0 restricts the originating dialling number.
- The character T restricts the terminating dialling number.
- The character B restricts both the originating and the terminating dialling numbers.

- The character N restricts neither the originating nor terminating dialling numbers.

A parameter in the User Interaction table restricts MDS service if the Locality Database is not in a working state.

Overseas restrictions Datafill in the User Interaction table either enables or disables MDS service for all overseas calls.

Announcements

VSN enhancements for MDS screening restrictions provide prompts that are defined in the SDM Prompts and French Prompts tables. The prompts are labeled MD1 through MD99.

Real-time impact of MDS screening restrictions

An additional 35 ms to 45 ms are required to retrieve the MDS restriction value from the Locality Database. This retrieval is processed only after a call passes call type and screening code restriction checks.

0+ Gateway Intercept

This feature provides enhancements to the TOPS VSN system software which defines the TOPS VSN as a 0+ gateway. 0+ Gateway Intercept enhances the TOPS VSN capabilities, but does not alter the existing functionality. This feature is provided as an optional package and is priced and sold independently of the basic VSN package.

Call types that qualify for MDS service are listed as follows:

- AABS initial DTMF station special calling which includes collect calls (CC), third-party billed calls (3rd), and special calls (SPL)
- AABS initial DTMF collect calls
- handoff to AABS collect calls
- handoff to AABS bill-to–third calls

Note: Subscribers not offered MDS service experience no change in VSN functionality.

The 0+ gateway intercepts a call before the call is released to the network for processing. An optional chime and voice announcement which offers MDS are presented to subscribers who qualify for MDS service. MDS service can be selected before the call is answered or after a busy tone is received. The combined 0+ gateway and DMS-200 system provide DTMF detection for calls originating from digitone sets and hookflash detection for calls assumed to be originating from TOPS handoff calls.

The MDS service may be accepted or rejected. If the service is accepted, the original call is connected to the MDS and the message is captured and

delivered. If the service is rejected, the original call is retained until the caller hangs up.

If operator assistance is requested or determined by time-out constraints prior to the MDS offer of service, the 0+ gateway routes the caller to an operator with Toll and Assist capability. 0 or hookflash routes the caller to an operator with MDS capabilities either during or after the offer of MDS service, but before the called party answers using the Queue Management System (QMS). An expert user is able to route a call immediately after hearing the MDS offer of service prompt.

> ***Note:*** All DTMF digits are ignored during call passing to the DMS until the call pass is complete and the DMS takes over. The subscriber cannot intercept the call while the call is being passed to the DMS. This also applies to collect calls when control is passed from the VSN to the DMS.

Language selection

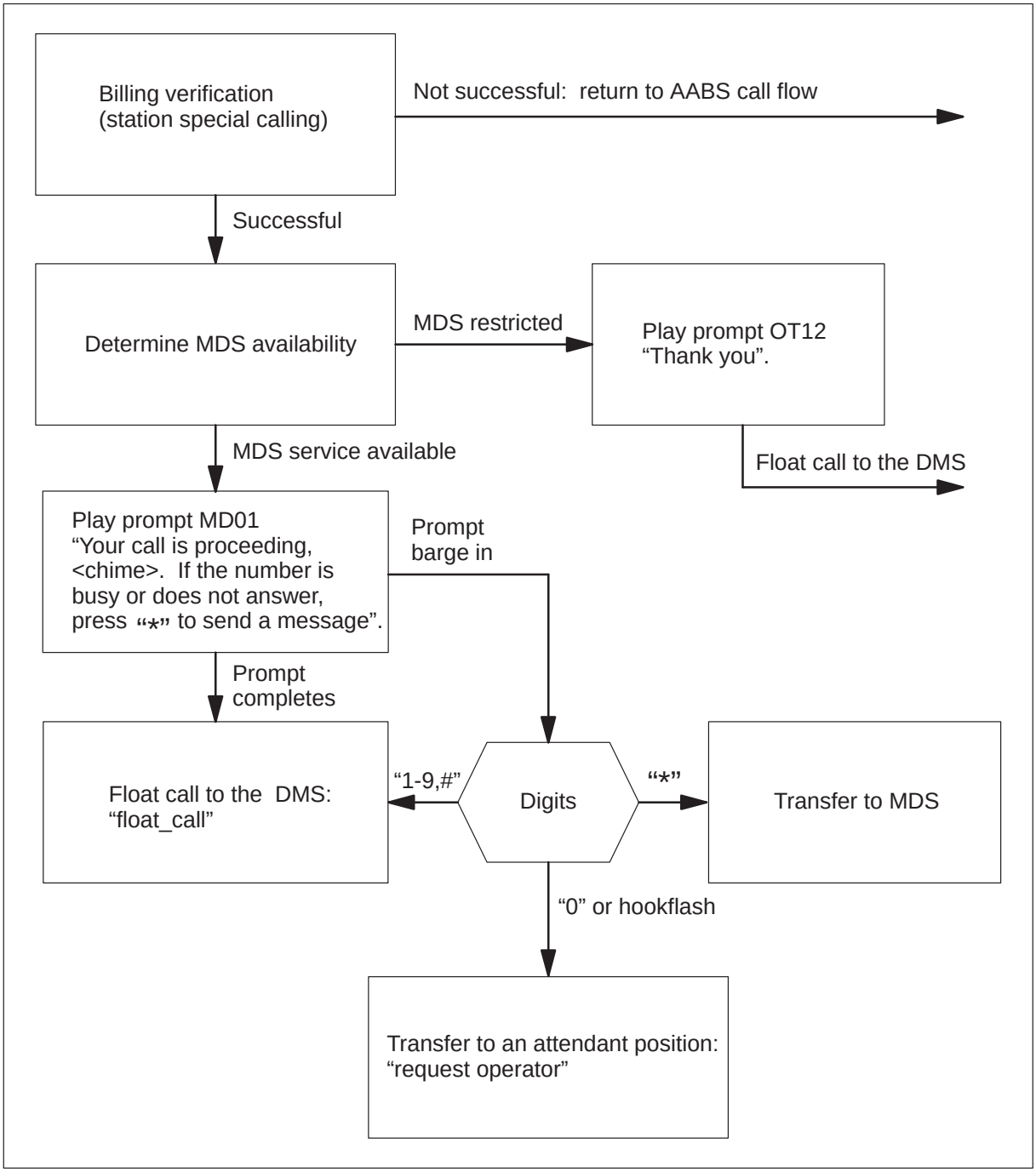
Language selection for the calling party and the called party is determined by the following constraints:

- In dual-language systems, where the caller is not required to select a language for calling card calls, the offer of messaging service is bilingual.
- In cases where the caller voluntarily selects or is forced to select a language, the offer of messaging service is unilingual.
- Both the calling party, called party, and billed party language information collected by the 0+ gateway is passed on to the MDS through the DMS.

DTMF station special calling

The call flow for DTMF station special calling is depicted in the following flow chart.

Figure 1–8
DTMF station special calling



Calling card billed calls

The subscriber dials 0+ and progresses through the AABS billing type selection and validation procedures. If calling card validation is successful, the VSN determines whether or not to play the MDS offer of service based on the MDS service restrictions. If MDS service is not restricted, the subscriber is presented with the following prompt:

```
Your call is proceeding. <chime>  If the number is busy or
does not answer, press star (*) to send a message.
```

The VSN passes the call to the DMS with an indication that MDS service was offered and then detaches from the call.

Third-party billed calls

The subscriber dials 0+ and progresses through the AABS billing type selection and validation procedures. If bill-to-third validation is successful, the VSN determines whether or not to offer the MDS service based on the MDS service restrictions. If MDS service is not restricted, the caller is presented with the following prompt:

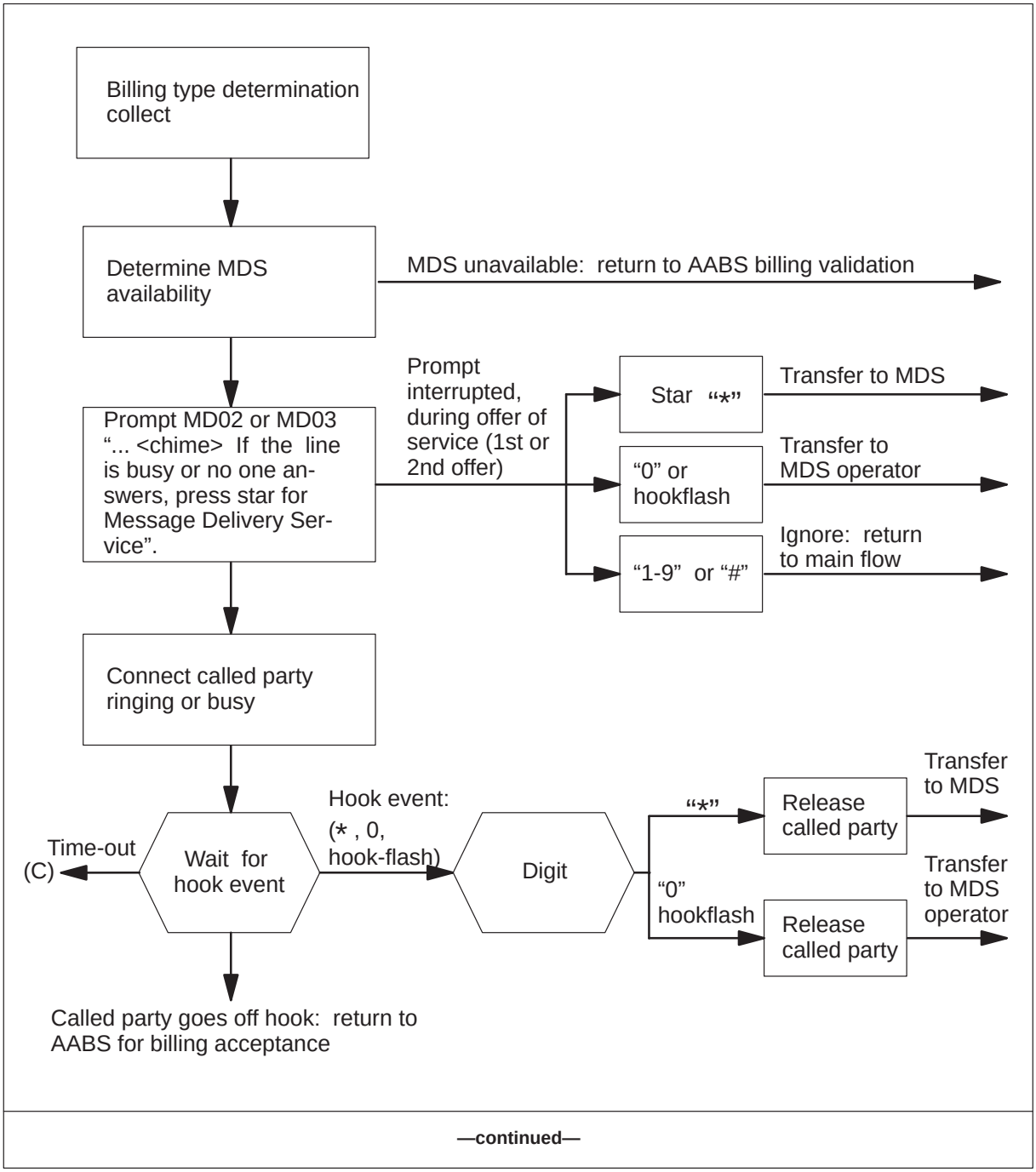
```
Your call is proceeding. <chime>  If the number is busy or
does not answer, press star (*) to send a message.
```

The VSN passes the call to the DMS with an indication that MDS service was offered, and then detaches from the call.

First pass DTMF collect calls

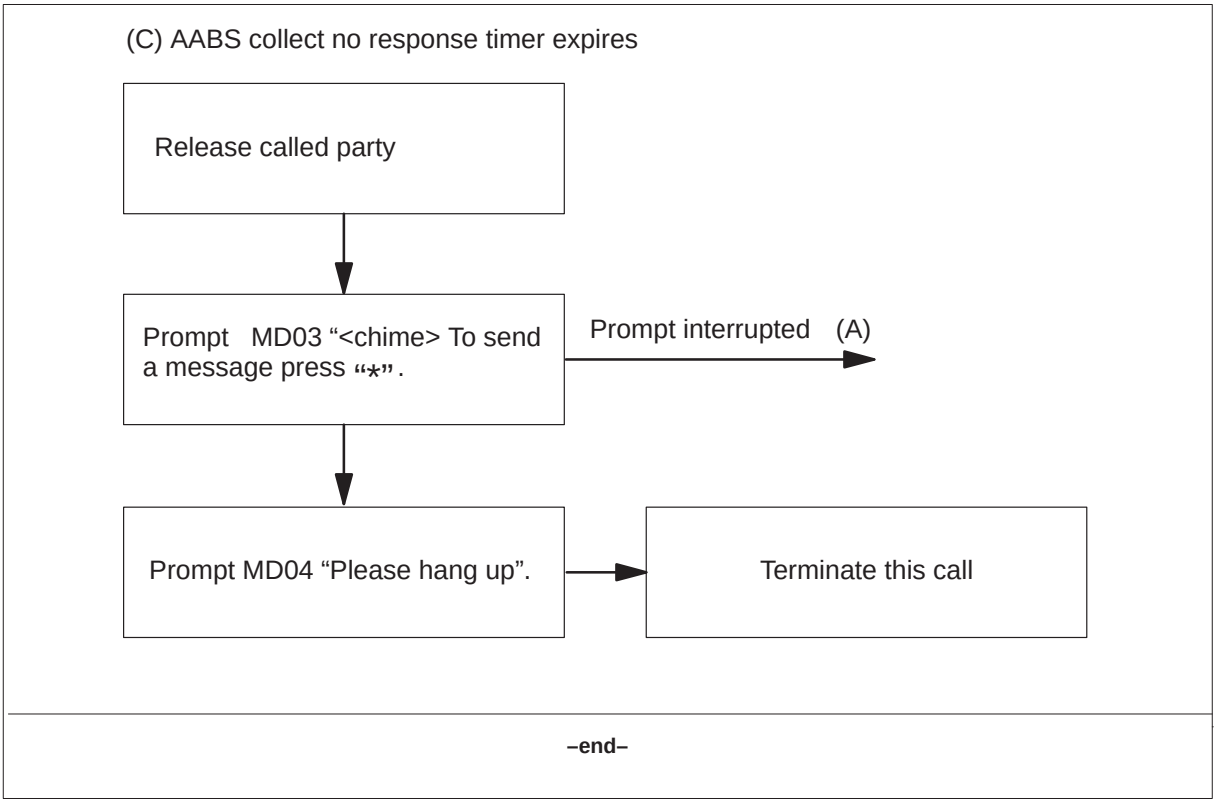
The call flow for first pass DTMF collect calls is depicted in the following flow chart.

Figure 1–9
First pass DTMF collect calls



—continued—

Figure 1–9
First pass DTMF collect calls (continued)



The subscriber dials 0+ and progresses through the AABS collect call scenario. The 0+ gateway determines whether or not to offer MDS service based on the MDS service restrictions before the 0+ gateway dials the called party and processes billing authorization. If the MDS service is not restricted, the caller is presented with a chime tone followed by a prompt offering MDS service. The subscriber hears the ringing or busy tone as the call progresses. If the caller chooses the MDS service by dialling star (*), the call is routed to the MDS system. If the caller chooses not to respond to the MDS service prompt, the existing AABS time-out applies and the 0+ gateway drops the connection to the called party. The caller is again offered the MDS service. Both calling party and called party language information collected by the VSN is passed on to the MDS through the DMS. Hookflash is available as a way to accept the MDS service from a rotary dial telephone. Hookflash routes the call to a live MDS operator where any necessary information is collected before transferring the call to the MDS. An experienced user is able to intercept a call immediately after hearing the MDS service offer without waiting for the prompts and processing each prompt as the prompt is presented.

Handoff collect calls

MDS service and intercept for handoff collect calls is processed exactly as it is for first pass DTMF collect calls.

Note: Prompts are defined to provide handoff callers with instructions to use a hookflash to access MDS.

Handoff bill-to-third calls

MDS service and intercept for handoff bill-to-third calls is processed exactly as it is for first pass DTMF bill-to-third calls.

Note: Prompts are defined to provide handoff callers with instructions to use a hookflash to access MDS.

Language requirements

Dual language voice prompting and bilingual speech recognition in AABS is available. The AABS system requires that the calling party make the language decision for the billed party through the DTMF selection or through a time-out which selects the default language. Default languages can be selected on a regional basis by the operating company.

MDS offers the same language functionality as AABS. Any language selection captured in the 0+ gateway is passed to the MDS through the DMS so that the user is not required to reenter any previously selected calling or billed party language.

Real-time impact of 0+ Gateway Intercept

Holding time is increased for every call that is eligible for MDS service. The decrease in the number of calls that are handled depends on the following:

- the mix of call types
- operating company restrictions on which calls are offered service
- unilingual or bilingual subscriber interface
- subscriber experience

Note: The average increase in holding time for each call which is offered MDS service is approximately five seconds. The previously listed factors can lead to a five to twenty-five percent reduction in call handling capacity.

VSN Enhancements for MDS AudioGram

The VSN Enhancements for MDS AudioGram feature extends MDS capabilities by allowing callers to select intentional messaging, that is, to place a call with the sole intention of leaving a message for the party they are calling.

TOPS VSN AudioGram is delivered as an optional feature package with the VSN load. It is installed using the Feature Install utility described in *TOPS Voice Service Node System Administration and Maintenance Operating Procedures*, 450–1301–310.

The AudioGram feature requires the DMS feature AF5009, TOPS Enhancements for MDS. The MDS related 0+ Gateway Intercept and AudioGram features require an AABS protocol version of 5 (or higher). This is necessary for the VSN to pass MDS language information to the DMS for call routing. Due to AABS protocol compatibility, if a VSN at VSN36 (or higher revision) software is hosted by a DMS running BCS35 or earlier software, the 0+ Gateway Intercept and AudioGram features must be disabled. If not, all AABS calls at the VSN that would normally be offered MDS service will abort.

Although both 0+ Gateway Intercept and AudioGram are MDS related features, they are independent of one another. AudioGram will still work when 0+ Gateway Intercept is inactive and vice versa. Subscribers not eligible for AudioGram service because of billing restrictions can still select MDS service on an incomplete call provided that MDS is available and not restricted for the chosen billing method.

If the caller selects AudioGram service then requests operator assistance, the call is transferred as an MDS call to an MDS attendant. The AudioGram feature does not affect any other VSN/operator interactions. If AudioGram service is not selected, existing rules for operator assistance apply.

Service selection

AudioGram appears in the service selection prompts when the feature is active, no DMS billing restrictions pertain to the call, and one or more MDS billing types are available.

If any DMS billing restrictions apply to the call AudioGram does not appear in the service selection prompts, although AudioGram is still available if one or more MDS billing types are available. AudioGram is a valid service selection under the following conditions:

- The AudioGram feature is installed and enabled in table FEATURES.
- VSN table USER INTERACTION datafill allows one or more MDS billing choices.

- DMS billing restrictions do not override all MDS billing choices.

When a 0+ call arrives at the VSN, the caller is played a service selection menu. Callers eligible for an AudioGram are offered the AudioGram service in the service selection menu. Callers not eligible for an AudioGram are not offered the service.

AudioGram billing menu

Eligible callers select AudioGram by pressing star (*) after the service selection prompt and are then offered a billing menu. The billing menu consists of valid billing types as determined by MDS billing datafill and DMS billing restrictions. Following is a list of the valid billing types and the DTMF patterns that are required to select them:

- Collect messaging, selected by pressing one one
- Calling card messaging, selected by entering the calling card number
- Commercial credit card (CCC) messaging, selected by entering the credit card number followed by the PIN
- Bill to third party messaging, selected by pressing one two then entering the number the call is to be charged to
- Sent paid messaging (bill to the number from which the call is being placed), selected by pressing one three

  Note: Calls originating from hotels or payphones will not be offered Sent Paid billing in the AudioGram billing menu. Only AudioGram calls can be presented to MDS as 0+ Sent Paid calls by the VSN.

The AudioGram billing menu supports the same level of expert user dialing as the service selection menu. The expert user can select language, AudioGram service, and a billing choice without pausing for prompts. If the expert user omits language selection in a bilingual system, the entered DTMF is retained and the caller is reprompted for language in a collect or bill-to-third call. No language reprompt occurs with calling card calls.

AudioGram call flows

After an AudioGram billing choice is made, normal billing acceptance occurs for bill-to-third and calling card calls. These calls are then routed to an MDS system for message recording. AudioGram collect calls skip name recording before transfer to the MDS system. The MDS system performs name recording and collect billing acceptance as a part of message delivery. AudioGram sent paid calls are transferred to an MDS system. The MDS system is responsible for completing sent paid billing to the caller’s number with the DMS. As with 0+ Gateway Intercept, AudioGram calls are transferred to MDS via operator request with MDS languages set. The DMS QMS system routes the call to an MDS queue based on the MDS language set by the VSN.

Bilingual AABS

Bilingual locality prompts

The current release includes a feature which allows the mapping of directory numbers (DN) to a language preference. The language preference determines how the customer interaction proceeds. Language preference for dual language interaction only applies until the caller selects the language. The customer interaction can be English, English followed by French, or French followed by English, or French. If the customer interaction is to be determined by the caller, the language that is played first in the bilingual prompts must be determined. If the language prompts are to be determined by the calling party, then the bilingual prompts can be English first, followed by French, or French first, followed by English.

Bilingual locality prompts allow:

- bilingual AABS to behave as a unilingual language system or a bilingual system
- particular localities to interact in a different language from other calls in the bilingual AABS as defined by locality datafill
- prompts in English and French
- recognition of the words yes, no, oui, and non
- calling party to select a language to interface to the AABS system (front end language)
- calling party to select the billed party language (back end language)
- an expert user to interrupt the prompts by entering correct values for the calling party language and service selection

This feature impacts the current English AABS as follows:

- entry of language selection in a unilingual system results in an error message or routing to operator as defined by the datafill
- locality operates exactly as it did in BCS31 in an English AABS system

Billing method selection

In dual language locations, while in the service selection call flow, nonexpert callers are prompted for front end language selection, (17 or 19), while expert callers may elect to perform a dual-tone multifrequency (DTMF) interrupt with both front and back end language selections, along with service selection. If the front end language is not entered on collect or billed to third calls before the service was selected, AABS prompts for language selection before the first call-related prompt is issued.

In single language locations, callers are not prompted for language selection. If the codes 17 or 19 are received before the 11 or 12 service selection codes, an error announcement results, or the call is routed to the operator, depending on datafill (Lang_Before_SS). If the codes 17 or 19 are received after the service selection codes, an error announcement is produced, the call is routed to the operator or the input is ignored, depending on datafill (Lang_After_SS).

System language

Each bilingual AABS is datafilled to provide bilingual interaction to the calling party and supports both English and French. The system language is determined by datafill in the Bilingual Interaction table using the following parameters:

- Eng selected in the Bilingual Interaction table provides English prompts only. The call is processed in English.
- Eng_Fre selected in the Bilingual Interaction table provides English and French prompts. The call is processed bilingually with English spoken first, then French. The calling party of collect and third-party calls is prompted to select a language to communicate with the system and a language for the system to communicate to the billed party.
- Fre_Eng selected in the Bilingual Interaction table provides French and English prompts. The call is processed bilingually with French spoken first, and then English. The calling party of collect and third-party calls is prompted to select a language to communicate with the system and a language for the system to use to communicate to the billed party.

Language selection options

Bilingual AABS language selection options are datafilled using the following parameters:

- Unilingual language (UNI) allows a bilingual AABS system to behave as a single language system and provides English prompts only. No language selection prompts are presented to the caller and the operator cannot change the language because no other language is known. The SYSTEM_LANG parameter must be datafilled as ENG to use the UNI language selection option.
- Forced language selection (FLS) forces the caller to select a language (French or English) for the calling party prompts and a language (French or English) for the billed party prompts. The FLS functions as follows:
  - — After the bong tone and service selection time-out, AABS prompts (bilingually) the caller to select the language desired for interaction with the system. Any further AABS prompts are in the selected language.
  - — The calling party is prompted to speak his or her name. After responding with his or her name, the calling party is prompted to select the language used to interact with the billed party.
  - — The calling party makes each language selection by pressing DTMF digits (17 for English, 19 for French).
  - — If the caller presses 11, 12, or enters 10 digits after the bong tone and before selecting a language, the system prompts for language before offering the first call-related prompt. After a predetermined number of retries, the system transfers the call to an operator.
- Alternate language selection (ALS) permits the caller to decide to retain the default language for the calling party language and for the billed party language by doing nothing at the query language prompts. Expert callers may interrupt the prompt/time-out by entering the default language digits. The caller may also switch to the alternate language at the prompts for the calling party or billed party language by pressing the appropriate digits, 17 or 19. In this option, the default language is assumed after a predetermined interval. The calling party language prompts must be bilingual.

Declared regions

Declared regions can partition certain groups of calls to be treated in a language differing from the system default language. Declared regions may be configured to offer the same language selections described above. Declared regions apply to both FLS and ALS options.

Expert user operation

In bilingual mode AABS permits the expert user to select the billing method and the calling and called party language without pausing for prompts or other signals. AABS also recognizes DTMF input if the expert user makes the selection in reverse order, the calling party language first, followed by billing method selection.

For example, after the bong tone, the calling party may enter the DTMF digits 1217, with no separation between the digits entered to indicate a bill-to-third (12) call with English prompts (17). Alternately, the user may enter 1712 to indicate the same selections, or 10 digits plus 17, or 17 plus 10 digits. For bill-to-third calls, these later sequences (10 digit input) are the normal bill-to-third sequence.

Front end DTMF interruption is recognized after the caller name is recorded and the language selection process for billed end language has started.

AABS also recognizes when DTMF interruption at the billed end indicates billing acceptance. The billed party may interrupt the billing acceptance prompt once the calling party name or locality has been played.

However, even the expert user must wait for the prompt for name recording before AABS is ready to record the user name. Voice interruption is also not recognized during the billing acceptance prompt at the billed end.

TOPS VSN enhancement for language hand-off

TOPS VSN enhancement for language hand-off works in conjunction with AABS protocol to pass subscriber and billed party language between the DMS and the VSN for call processing.

The messages in the AABS protocol were enhanced to achieve language passing as follows:

- Call Begin is enhanced to pass subscriber and billed party language to the VSN on operator hand-off calls. The subscriber language indicates the language in which the VSN greets the calling party. The billed party language indicates the language in which the VSN interacts with the billed party.
- Request Operator is enhanced to pass subscriber language to the DMS on calls that the VSN is transferring to the DMS for an operator to handle.
- Float Call is enhanced to pass subscriber language to the DMS when calls are released by the VSN because call processing is complete.

When the VSN receives operator hand-off calls, the VSN interacts with the subscriber and the billed party in the languages indicated in the call begin message. The DMS passes the subscriber and billed party languages to the VSN in the call begin message of an operator hand-off call. The VSN greets the calling party in the subscriber language and interacts with the billed party using the billed party languages.

When the DMS receives a call transferred to it by the VSN, the VSN passes the subscriber language, if known, to the DMS in the Request Operator Action Request message. (NIL is passed if the subscriber language is unknown.) The DMS may use the subscriber language to determine which TOPS call queue to route the call to and to inform the operator which language the subscriber chose while interacting with the VSN.

Language datafill in the DMS

Proper call handling is dependent upon correct datafill in the DMS. There is a DMS table called TOPSLANG. Two fields in this table, LANGNAME and LANGNUM, provide the mapping of the languages that are used when the subscriber and billed party languages are passed by either the DMS or the VSN. The operating company datafills these fields.

To ensure that the subscriber and the billed party languages are interpreted correctly, the LANGNAME and LANGNUM fields must be datafilled as follows:

- The LANGNAME entry that is datafilled to specify English must have the value of 1 in the corresponding LANGNUM field.
- The LANGNAME entry that is datafilled to specify French must have the value of 2 in the corresponding LANGNUM field.

Possible errors in datafilling the LANGNAME and LANGNUM fields and their consequences are defined as follows:

- If the values are switched, the language used in the interaction with the respective party is also switched. For example, if the French entry is assigned the value of 1, the instances where the interaction should take place in French will instead take place in English.
- Any value, other than 1 or 2, assigned to the English and French entries in the TOPSLANG table are considered invalid by the VSN. The call is rejected and sent back to the DMS. (Refer to *TOPS Translations Guide*, 297–2271–350, section NTXP79AA and *TOPS Customer Data Schema*, 297–2271–451, for more information on table datafill.)

Effects of TOPS VSN enhancement for language hand-off on AABS call flows

AABS call flows proceed in the following manner when language passing is present:

- When an operator hand-off call is received from the DMS, the VSN determines if language was passed in the Call Begin message.
- If both the subscriber and billed party languages are passed, the VSN verifies that they are valid.
- If both languages are valid, the VSN proceeds with call processing as usual, omitting language selection prompting.
- If one or both languages are invalid, the VSN rejects the call and transfers the call back to the DMS.
- If only one language is passed, the VSN rejects the call and transfers the call back to the DMS. The VSN requires both languages to be passed if the DMS has language passing capabilities.
- If neither language is passed, both languages default to the language datafilled in the office parameter Operator_Lang. In this case, it is assumed that the DMS is a BCS32 or earlier release and does not have language passing capabilities. The VSN proceeds with call processing as usual, omitting language selection prompting.

Originating Line Number Screening

The introduction of OLNS in DMS TOPS06 allows calling subscriber information to be stored in a Line Information Data Base (LIDB) and accessed by the DMS switch during call processing through a TCAP query.

OLNS reduces operating company administrative requirements by

- centralizing the DN information into a single data base (instead of maintaining data in multiple DMS switches)
- providing a simple interface for data entry
- storing other subscriber specific information
- communicating response messages to the DMS switch

Without OLNS, subscriber billing restrictions and preferred interLATA carrier are datafilled in DMS tables. This information is used during call processing for the correct handling of the call. For operating companies the this requires frequent updates to DN information in the tables DNPIC, SPLDNID, and DNSCRN/TOPSDB/TDBCLASS.

With OLNS using the LIDB, call screening information based directly on the calling DN is not directly available to the VSN. Instead, a derived restricted billing index is sent to the VSN. New DMS tables are used to datafill the index based on service/equipment, billing restriction and the treatment combination. The derived restricted billing index does not provides the granularity of the previous DN based index. The result is the loss of some AABS screening code based services from the VSN.

VSN service changes are present only if OLNS is activated on the DMS switch. If OLNS is not activated, then all AABS services provided by the VSN continue to operate as before. New features are not required on the VSN for OLNS compatibility.

OLNS effect on VSN screening code actions

Sites that support OLNS, screening codes for toll and assist applications such as AABS are derived from DMS datafill in the OLNSTARS table. OLNSTARS maps service equipment codes and billing and treatment indicators to a user-specified screening code.

TOPS VSN prompt manager

The purpose of the prompt manager is to read locality prompts from tape, or to record new prompts, store them in a library, edit the prompts, place them in a set (or sets), and install the sets on the TOPS VSN system. This concept of generating a unique prompt library is illustrated in Figure 1–10.

User interface

The user, with the aid of menu items on an M4020 display, can perform the following tasks:

- transfer prompts from magnetic tape and add them to the library
- record new prompts and then add them to the library
- search the library for specific issues of a prompt
- copy, edit, or archive prompts or sets
- play prompts
- group prompts into sets
- install a set of prompts on the TOPS VSN system

The user can also perform the following archiving functions:

- reactivate pending archive prompts
- archive the current prompt library
- restore a library from an archive

Prompt library

The two types of elements that are in the prompt library are called prompts and sets. A prompt is the multipulse linear predictive coding (MPLPC) encoded voice instruction plus descriptive information. A set is a collection of prompts, plus some information on the set. To preserve uniqueness in the library, no two elements may have the same name.

An operating company can modify prompts and for each modification the library will raise new issues. After a period of time, the library contains prompts and sets of prompts with different issues. Once a prompt or set issue is created, it cannot be created again, even when archived.

Library management

The library must be managed to ensure that the storage area allocated to the library is not exceeded. This is accomplished by archiving old issues or redundant prompts. To simplify library management, each issue of a prompt has an archive status associated with it. The archive statuses are active, archived, and pending archive. Table 1–18 defines prompt and archive status.

Table 1–18
Prompt and archive status

Prompt	Archive status
Active	Active status means that the issue is available in the library, and may be copied, played, edited, or installed on the TOPS VSN.
Pending Archive	Pending archive status issues are prompts or sets that are still in the library, but cannot be used. The status changes to archived when the library is transferred to cartridge tape. These prompts can only be accessed from an administrative terminal.
Archived	Archived status issues are prompts or sets that were once in the library, but are no longer available for use. The only way that these prompts can be used is to restore a library (containing these prompts) from cartridge tape and transfer the prompt to active status.

In addition to an archive status, prompt and set issues are in one of the states, installed or not installed, as defined in Table 1–19.

Table 1–19
Prompt and set issues

State	Prompt and set issue
Installed	An installed set issue may never be archived, because it is in use by the TOPS VSN.
Not installed	A not installed set issue is available for use, but is not currently in use. In this state, the status of an issue may be pending archive.

Prompt manager restrictions

The prompt manager is a single user system. Only one user can access the prompt manager at a time and access must be made through the TOPS VSN system, not through a remote terminal.

The prompt manager can only be used with M4020 terminals; no other terminals are supported.

During an archive function, the archive management facility writes the complete prompt manager database to magnetic tape. It is not possible to archive individual prompts or sets of prompts. After the file is written to tape, the archived prompt is removed from the database, and the name is marked with an archived status. A prompt name cannot be reused, even if all issues of the prompt are archived.

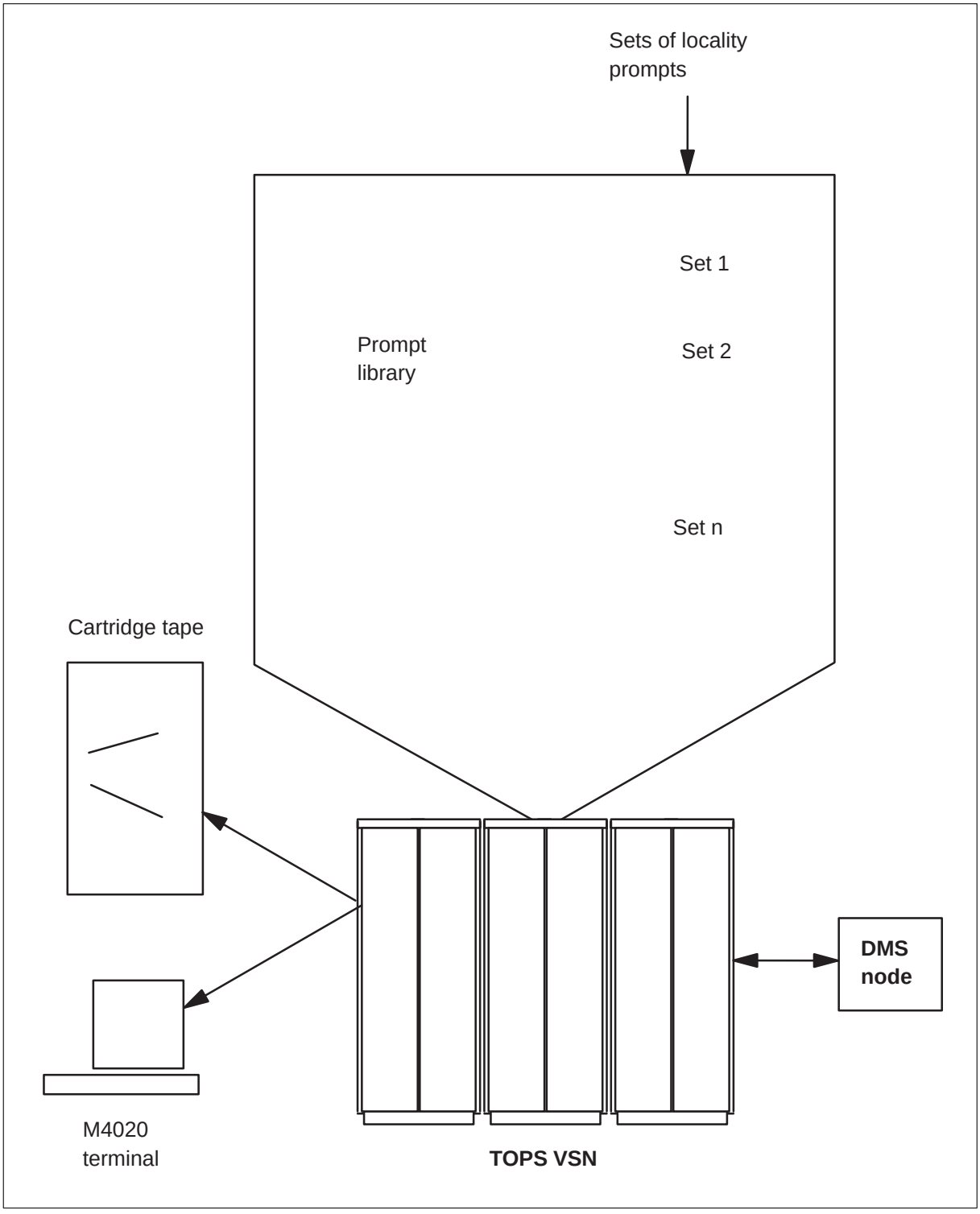
The prompt library has an interface exclusively with the Locality Database. Each new TOPS VSN application requires an additional interface and a unique set-type.

The voice editor is not intended for extensive prompt editing. Its typical purpose is to remove undesirable silence from both ends of prompts, adjust peak level of prompts, and play prompts on the M4020 terminal. Prompts can be recorded using the handset of the M4020 terminal, but the quality compares unfavorably with the quality obtained in a sound studio.

If an M4020 handset is not available, Northern Telecom provides a casette tape recorder adapter which replaces the M4020 handset. The new prompts can be played from a casette into the Prompt Manager.

Recording or playing prompts reduces the TOPS VSN call capacity by one resource unit. It may be desirable to limit the use of the record or play functions to low traffic hours.

Figure 1–10
Prompt manager concepts



Call processing flow

Overview of call processing

Call processing only details the functions that affect the TOPS VSN. In a complete call processing flow description there are many more functions, for instance those that deal with call set-up and take-down. This part assumes that the basic method of selecting and completing a call are understood. For further details on selecting and completing a call, please refer to the publications that describe the DMS-100 Family of digital switches (see *Product Documentation Directory,* 297–8991–001, *which replaced DMS-100 Family Master Index of Publications*, 297–1001–001).

Call processing description

After a call is presented to TOPS VSN, a bong tone is played to prompt the subscriber to input a billing number, or select a billing method.

For collect calls in unilingual systems, the subscriber must dial the two digits 11, unless the call is restricted to collect charges only, in which case only the destination number is dialed. For third-number billing, the subscriber can either dial the two digits 12, or the complete ten digit billing number. If 12 is dialed, the subscriber is prompted for the billing number. If the call is to be charged to a calling card, the subscriber can enter either a 14 digit calling card number, a 4 digit personal identification number (PIN), or a 5–23 digit CCITT calling card number. If a PIN is entered, the called number is prefixed to the PIN to form a 14 digit number that can be processed in the same way as a calling card number. If the call is to be charged to a commercial credit card, the subscriber can enter the 11 to 19 digit number printed on the credit card, followed by the PIN. If the subscriber does not respond to the bong tone, a service selection announcement is played. This announcement describes what billing methods are available to the subscriber.

Once a billing number has been dialed, or if the appropriate information can be derived from the billing method, a validation request message is sent to the DMS-200 TOPS system, to initiate a database query to the Billing Validation Authority, or to the Line Information Database. This query is for either calling card verification (CCV) for the calling card or commercial credit card service, or billing number screening (BNS) for collect calls or third-number billing verification.

The DMS-200 TOPS system processes the data, prepares a response, and forwards the appropriate information to the TOPS VSN.

Collect and third-number billing calls are processed in one of three ways:

- If a locality prompt exists for the call and the Name Plus Locality mode is set to Name_First or Loc_First in the Loc_Screen Codes table, the caller is asked for a name and both the name and locality prompt are played back during billing acceptance. If the Name Plus Locality mode is set to Loc_Only, only the locality prompt is played during billing acceptance.
- If the database response requests billing verification and the name recording parameters are set to yes, the caller is asked to say a name for playback on billing acceptance.
- If the database response requests billing verification and the name recording parameters are set to no, the caller is not asked for a name for playback on billing acceptance. In this case, a default prompt message is played to the billed party during the billing acceptance phase of call processing.

If the call is an operator hand-off call, the billing is validated before routing the call to TOPS VSN for processing. After the operator activities are completed, if the call is a nonprison call, the subscriber receives a welcome message from TOPS VSN, followed by either a prompt to record a name or by call treatment according to the locality code. Billing acceptance procedures are then initiated.

The billed party is then connected for TOPS VSN to obtain billing acceptance using either verbal or DTMF commands. During the billing acceptance validation phase, the caller speech path is disabled.

When the call is answered, an announcement is played that informs the billed party that the call is to be billed to this line. After the request for billing acceptance or refusal is issued, an announcement containing the recorded name of the caller, the default message, or the locality prompt is played to the billed party. The acceptance methods available to the called party are as follows:

- verbal acceptance by saying yes
- DTMF acceptance by dialing 1
- verbal refusal by saying no
- DTMF refusal by dialing 2
- hang up as a refusal

Billing acceptance for calling cards and commercial credit cards is made through a database query.

Call processing actions

Call processing is controlled by the Application Call Processing Engine which sequences each TOPS VSN response based on subscriber input and system conditions. Call flow for the seven major TOPS VSN subscriber tasks, service selection, collect call service, third-number billing service, calling card service, commercial credit card service, language selection in a bilingual system, and operator service is described in this part.

Under each major group heading, subscriber input and system conditions are identified, then linked to a TOPS VSN response. When the TOPS VSN response is an announcement, the reader is referred to the announcement type and number. The following code is used to reference announcements: SS means service selection, CS means collect service, CC means calling card service, CCC means commercial credit card service, TP means third-party billing service, LS means language selection, and OT means other prompts.

The symbol ==> is used to show the result of an action. When several conditions exist that may influence the result, the condition is stated and is followed by the appropriate TOPS VSN response. The response is often a new action. When the response is a new action the first letter of each word in the name is capitalized.

AABS call flow

Call flow format

The following sections describe the flow of a call in the form of a finite state machine with the following attributes:

- A finite set of states, e.g., S0, S1, S2.....Sk.
- A finite set of input events, e.g., subscriber enters Switchhook flash.
- A finite set of output actions, e.g., announcements.
- A next state which is derived from the current state and input event.

Each call must be in a known state at any time. A state contains:

- A state number (e.g., S0).
- A state name (e.g., IDLE).
- A list of actions that can include playing an announcement, sending a message to DMS–200/TOPS, performing a check on the retry limits, performing voice actions, etc. The results of these actions can be tested via the IF construct.
- A list of incoming events to be handled (e.g. billed party hang up). Events may take the form of external inputs or can be generated as a result of actions. Event handling is represented and controlled by the ON construct.
- A next state to select on receipt of a certain event or as a result of an action. This is represented by the NEXT STATE verb.

The call flow labels each announcement as “UNI”, “BI”, or “MI”.

- UNI – The announcement is presented in a single language, either the default language or the language selected by the subscriber.
- BI – The announcements are presented as follows:
  - — If a language is selected, then the announcement is played in the selected language only.
  - — If a language is not selected and the default is Eng_Fre or Fre_Eng, then the announcement is played in both languages in the order of the default.

- MI – The announcements are always played bilingually (“MIxed”). The order of the languages within the announcement is based upon the default (Fre_Eng or Eng_Fre).

A state may “CALL” to and “RETURN” from another section of the call flow, instead of imbedding a section repeatedly throughout the call flow. This technique is used to obtain language selections.

Voice messages

The text for all voice message prompts presented in the AABS call flow is the default text. The text is presented in courier, 12 point font and is followed by the message identification labels for all possible message text versions. The default messages for the United States and all other versions of those message are presented in NTP 450–1310–103, *TOPS Voice Service Node AABS Voice Announcements, United States.* The Canadian default messages and all other versions of those message are presented in NTP 450–1310–105, *TOPS Voice Service Node AABS Voice Announcements, Canada.*

Identification labels for the United States

The voice message identification label for prompts played in the United States are comprised of two parts. The first part represents the prompt type as follows:

- Service Selection (SS)
- Collect (CS)
- Third-number (TP)
- Calling-card (CC)
- Commercial credit card (CCC)
- Other prompts (OT)
- Account Code Billing (AC)

The second part of the prompt voice message identification label is an alpha-numeric combination. The numeric part identifies a specific message and the alpha part identifies the optional variation in wording of that specific message.

For example, Service Selection prompt SS-2 has five variations of the same message: SS-2, SS-2A, SS-2B, SS-2C, and SS-2D.

Identification labels for Canada

The voice message identification label for prompts played in Canada are comprised of four parts. The first part represents the prompt type as follows:

- Service Selection (SS)
- Collect (CS)

- Third-number (TP)
- Calling-card (CC)
- Commercial credit card (CCC)
- Language Selection (LS)
- Message Delivery (MD)
- Other prompts (OT)
- Account Code Billing (AC)

The second part of the prompt voice message identification label is an alpha-numeric combination. The numeric part identifies a specific message and the alpha part identifies the optional variation in wording of that specific message.

The third part of the prompt is the alpha combination BC, which identifies the prompt as Bell Canada.

The fourth part of the prompt identifies the language that the prompt is presented in. The language is either French or English, and is represented by an F or E, respectively.

Call flow for service selection

Call flow for operator handoff for a bilingual AABS will be implemented as shown, upon insertion of languages in the message protocol.

S0000 – [Idle]

ON{Direct call begins}
SETUP {TABS resources}
next_state [S1000 – Configuration Check]
ON{Handoff call begins}
SETUP {TABS resources}
next_state [S1040 – Language Validation For Operator]

S1000 – [MDS Billing Check]

Determine MDS billing restrictions

ON{completed billing query}

next_state [S1001 – Configuration Check]

S1001 – [Configuration Check]

IF {Single Language System}
SET {Front End Language to default language}
SET {Back End Language to default language}
next_state [S1022 – Check for ARAN calls]

Otherwise
SET {Language Selection to FLS or ALS configuration}
next_state [S1014 – Locality Language Check]

S1014 – [Locality Language Check]

IF {Check Locality for language (LOC_LANG_CHECK=YES)}
IF {Language is defined in Locality}
SET {Front End language to locality language}
next_state [S1022 – Check for ARAN calls]
Otherwise
next_state [S1020 – Bilingual System Language Setup]

Otherwise
next_state [S1020 – Bilingual System Language Setup]

Call flow for service selection (continued)

S1020 – [Bilingual System Language Setup]

IF {SYSTEM_LANG = ENGLISH}
SET {Front End language = English}
next_state [S1022 – Check for ARAN calls]

Otherwise
SET {Order of Language = SYSTEM_LANG}
next_state [S1022 – Check for ARAN calls]

S1022 – [Check for ARAN calls]

IF ARAN call
next_state [SC000.OM – Give ARAN handling]
Otherwise
next_state [1201.0 – Station Billing Check]

S1040 – [Check for Front End Language]

IF {Front End Language Defined}
next_state [S1202 – Continue Call Processing]
Otherwise
next_state [1050 – Set to Operator Language]

S1050 – [Language Check for Operator Handoff]

IF {Operator handoff}
SET {Front End Language = OPERATOR_LANG}
SET {Back End Language = OPERATOR_LANG}
next_state [S1202 – Handoff Prison Check]

Call flow for service selection (continued)

S1201 – [Station Billing Check]

Determine station billing restrictions

IF {none of the billing types are permitted}

```
"Your call cannot be completed as dialed.
Please hang up and dial your operator for
assistance."
[SS-13,SS-13A,SS-13B,SS-13A-BC-F,
or SS-13A-BC-E]
```

Abort the call.
Release TABS resources.

IF {call originated from prison
(screening code in table SCREENING_CODES with PRISON or PRISON_NO_OPER)}
next_state [S1230 – Prison Call Handling]

IF {collect only call}
next_state [S1220 – Welcome Announcement]

Otherwise
next_state [S1210 – Select at Bong]

S1202 – [Operator Handoff Prison Call Check]

IF {call originated from prison
(screening code in table SCREENING_CODES with PRISON or PRISON_NO_OPER)}

IF {Third Party call}
next_state [S6100 – Return to Operator]
Otherwise
next_state [S2123 – Locality Check (Collect)]

Otherwise
next_state [S1221 – Handoff Welcome Announcement]

Call flow for service selection (continued)

S1210 – [Select at Bong]

(Bong Tone) [SS1]

ON{Subscriber does not respond (BONG_N_PROMPT) within 1.0 second}
next_state [S1220 – Welcome announcement]

ON{Subscriber enters digits other than "0"}
next_state [S1250 – Service Selection Analysis]

ON{Subscriber enters "0" }
IF {Refer to operator on "0" after Bong (REFER_TO_OP_ON_0_AFT_BONG = YES)}
next_state [S6000 – Route to Operator]
Otherwise
next_state [S1220 – Welcome Announcement]

ON{Subscriber enters HOOK FLASH before digits}
next_state [S6000 – Route to Operator]

S1220 – [Welcome Announcement]

IF {welcome announcement enabled (WELCOME_MSG_ENABLE = YES)}

IF {custom branding calling welcome prompt available}

Play Calling Welcome Custom Brand [SS0_CB]

Otherwise

"Welcome to (telco brand name 1)'s automated billing service."
[SS–0,SS–0A–BC–E, or SS–0A–BC–F]

next_state [S1241 – Language Check]

Otherwise
next_state [S1241 – Language Check]

Call flow for service selection (continued)

S1221 – [Operator Handoff Welcome announcement]

IF {Handoff welcome announcement enabled
(HDO_WELCOME_MSG_ENABLE = YES)}

IF {calling welcome custom branding prompt available}

Play Calling Welcome Custom Brand [SS0_CB]

Otherwise

"Welcome to (telco brand name 1)'s
automated billing service."
[SS–0,SS–0A–BC–E, or SS–0A–BC–F]

next_state [S1222 – Handoff service selection]

Otherwise
next_state [S1222 – Handoff Service selection]

ON{Subscriber enters HOOK FLASH}
Ignore

S1222 – [Handoff Service Selection]

IF {Collect Call}
next_state [S2123 – Locality Check (Collect)]

IF {Third Party Call}
next_state [S3185 – Locality Check (Third)]

S1230 – [Prison Call Handling (Collect)]

SET {Service = Collect}

IF {(USER INTERACTION Prison_No_Operator = YES) OR
(screening code matches Prison_No_Oper in table
Screening_Codes)}
nextstate [S2000 – Collect call verification]

Otherwise

{Front End Language undefined}
CALL [S5000 – Front End Language Selection]

"For a person–to–person call, press zero now
If you will speak to anyone who answers, please
hold while your call is being placed."
[SS–5,SS–5A,SS–5B,SS–5C,SS–5D,SS–5E,SS–5F,
SS–5A–BC–E,SS–5B–BC–E,SS–5C–BC–E,or SS–5D–BC–E]

Call flow for service selection (continued)

S1230 (cont'd)

ON{Subscriber does not respond (REQ_OP_CLT_ONLY)
within 3.0 seconds}
next_state [S2000 – Collect call verification]

ON{Invalid pattern}
next_state [S2000 – Collect call verification]

ON{Subscriber enters "0"}
next_state [S6000 – Route to operator]

S1231 – [Collect only]

SET {Service = Collect}

IF {Front End Language undefined}
CALL [S5000 – Front End Language Selection]

"For a person–to–person call, press zero now
If you will speak to anyone who answers, please
hold while your call is being placed."
[SS–5,SS–5A,SS–5B,SS–5C,SS–5D,SS–5E,SS–5F,
SS–5A–BC–E,SS–5B–BC–E,SS–5C–BC–E, or SS–5D–BC–E]

ON{Subscriber does not respond (REQ_OP_CLT_ONLY)
within 3.0 seconds}
next_state [S2000 – Collect call verification]

ON{Subscriber enters "0"}
next_state [S6000 – Route to operator]

ON{Invalid pattern}
next_state [S2000 – Collect call verification]

S1241 – [Language Check]

Service is undefined

IF {Front End Language undefined}
next_state [S5000 – Front End Language Selection]

Otherwise
next_state [S1242 – Select at prompt 1]

Call flow for service selection (continued)

S1242 – [Select at prompt 1]

Determine station billing restrictions

IF {No DMS restrictions}

next_state [S1242.1 – No DMS restrictions, AudioGram check]

IF {Collect only}
next_state [S1231 – Collect only]

IF {Calling card only}

"If you want to charge this call to your calling card, enter your calling card number now to place a person–to–person call, press zero for the operator."
[SS–18,SS–18A,SS–18B,SS–18A–BC–E, or SS–18A–BC–F]

IF {Third party only}

"If you want to charge this call to another number, enter the area code and number now to place a person–to–person call, press zero for the operator."
[SS–19,SS–19A,SS–19B,SS–19A–BC–E, or SS–19A–BC–F]

IF {All types except collect – includes DA calls}

"If you want to charge this call to your calling card, enter your calling card number now to charge this call to another number, press one two
to place a person–to–person call, press zero for the operator."
[SS–7,SS–7A,SS–7B,SS–7C,SS–7A–BC–E, SS–7B–BC–E,SS–7C–BC–E,SS–7A–BC–F, or SS–7B–BC–F]

Call flow for service selection (continued)

S1242 (cont'd)

IF {All types except calling card}

"If you want to place a collect call, press one one now to charge this call to another number, press one two to place a person–to–person call,press zero for the operator."
[SS–10,SS–10A,SS–10B,SS–10A–BC–E, SS–10A–BC–F, or SS–10B–BC–F]

IF {All types except third–party}

"If you want to place a collect call, press one one now to charge this call to your calling card, enter your calling card number to place a person–to–person call, press zero for the operator."
[SS–9,SS–9A,SS–9B,SS–9A–BC–E, SS–9B–BC–E,SS–9A–BC–F, or SS–9B–BC–F]

ON{Subscriber enters digits}
next_state [S1250 – Service Selection Analysis]

ON{Subscriber does not respond (AFT_PROMPT) within 5.0 seconds}

IF {No response to first announcement (NO_RESP_1ST_SS = 0) limit attained}
next_state [S6100 – Route to Operator]
Otherwise
next_state [S1242 – Select at prompt 1]

ON{Subscriber enters HOOK FLASH before digits}
next_state [S6000 – Route to Operator]

Call flow for service selection (continued)

S1242.1– [Select at prompt 1 – No DMS Restrictions]

IF {AudioGram is available, and MDS billing is available}

"To charge this call to a Calling Card, enter the Calling Card number now. For a Collect call, press 1–1. To charge this call to another number, press 1–2. To send a message, press star. For person to person, and other calls, press 0 for the operator."
[SS–27A, SS–27B, SS–27A–BC–E, SS–27A–BC–F, SS–27B–BC–E, SS–27B–BC–F]

IF {AudioGram is unavailable, or MDS billing is unavailable}

"For collect calls, press one one now to charge this call to a calling card or to another number, please enter the number for person–to–person and other calls, press zero for the operator."
[SS–2,SS–2A,SS–2B,SS–2C,SS–2D, SS–2A–BC–E,SS–2B–BC–E,SS–2C–BC–E,SS–2D–BC–E, SS–2E–BC–E,SS–2F–BC–E,SS–2G–BC–E,SS–2A–BC–F, SS–2B–BC–F,SS–2C–BC–F, or SS–2D–BC–F]

ON{Subscriber enters digits}
next_state [S1250 – Service Selection Analysis]

ON{Subscriber does not respond (AFT_PROMPT) within 5.0 seconds}
IF {No response to first announcement (NO_RESP_1ST_SS = 0) limit attained}
next_state [S6100 – Route to Operator]
Otherwise
next_state [S1242 – Select at prompt 1]

ON{Subscriber enters HOOK FLASH before digits}
next_state [S6000 – Route to Operator]

Call flow for service selection (continued)

S1250 – [Service Selection Analysis]

IF {Dual language system
AND
Back End Language defined}
SET {Back End language = undefined}

ON{Subscriber entered “0”}
next_state [S6000 – Route to Operator]

ON{Subscriber entered “11”, “12”, NPA NXX XXXX,
NPA NXX XXXX NXXX, CCITT, Commercial Credit Card,
RAO 0/1XX XXXX NXXX, NXX XXXX}
next_state [S1251 – Restricted billing and overseas check]

ON{Subscriber entered “15”}
IF {Account Code Billing Mode is not “DISABLED”
next_state [SB000 – Account Code Billing (ACB) check]

Otherwise
next_state [S1251.7.1 – ACB not allowed]

ON{Subscriber entered NXXX,
followed by (AFT_4DIGITS_PIN) 2.0 second timeout}
next_state [S1255 – PIN only check]

ON{Subscriber entered CXXXX}
next_state [125B – Error/Extended Calling Card Check]

ON{Subscriber entered “17”}
next_state [S1270 – DTMF recognized 17]

ON{Subscriber entered “19”}
next_state [S1271 – DTMF recognized 19]

ON{Subscriber entered “*”}

next_state [S1251 – Restricted billing and overseas check]

ON{Subscriber entered 1 digit, or 2 digits,
other than “0”, “11”, “12”, “17”, or “19”}
next_state [S1258 – Incorrect option]

ON{Subscriber entered incomplete number of digits}
next_state [S1259 – Incomplete number of digits]

ON{Subscriber entered invalid digit pattern}
next_state [S125B – Invalid number]

Call flow for service selection (continued)

S1251 – [Restricted billing and overseas check]

Determine station billing restrictions

IF {NXXX#}
IF {Called number is DA or Overseas}
next_state [S125B – Invalid number]
IF {Station is restricted from calling card billing}

"Calling card calls cannot be made from this telephone."
[SS–17,SS–17A–BC–E,SS–17B–BC–E, or SS–17A–BC–F]

next_state [S1251.9 – Retry Count Check]
Otherwise
IF {Valid_CCITT}
next_state [S4100 – Query CCV]
Otherwise
next_state [S4000 – Calling Card Handling]

IF {NPA NXX XXXX NXXX, RAO 0/1XX XXXX NXXX, or valid_CCITT}
IF {Station is restricted from calling card billing}

"Calling card calls cannot be made from this telephone."
[SS–17,SS–17A–BC–E,SS–17B–BC–E, or SS–17A–BC–F]

next_state [S1251.9 – Retry Count Check]
Otherwise
IF {Valid_CCITT }
next_state [S4100 – Query CCV]

Otherwise
next_state [S4000 – Calling Card Handling]

IF {"11"}
IF {Called number is DA}

"Directory assistance cannot accept collect calls."
[SS–14,SS–14A–BC–E, or SS–14A–BC–F]

next_state [S1251.9 – Retry Count Check]

Call flow for service selection (continued)

S1251 (cont'd)

IF {Called number is Overseas}
next_state [S6000 – Route to operator]

IF {Calling station or called party is restricted from collect}

IF {Route to Operator (COLLECT_RESTRICT_AT_CB = OPERATOR)}
next_state [S6000 – Route to operator]
IF {Inform caller (COLLECT_RESTRICT_AT_CB = MSG)}

"This call may not be billed as collect."
[SS–23,SS–23A–BC–E, or SS–23A–BC–F]

next_state [S1251.9 – Retry Count Check]
Otherwise
next_state [S2000 – Collect call verification]

IF {"12"}
IF {Station is restricted from third–number billing}

"Calls cannot be charged to another number from this telephone."
[SS–16,SS–16A–BC–E, or SS–16A–BC–F]

next_state [S1251.9 – Retry Count Check]
Otherwise
next_state [S3500 – Collect 10 Digits]

IF {NPA NXX XXXX}

IF {CDB_Pound_Entered = YES}{NPA NXX XXXX#}
next_state[S1251.3.0.3 – Check for Single Language System]

Otherwise {NPA NXX XXXX}

Call flow for service selection (continued)

S1251 (cont'd)

IF {PLAY_POUND_OR_PIN_MSG = YES}

"Please enter your Calling Card PIN or press the number sign if billing to another number."
[OT–47,OT–47A–BC–E, or OT–47A–BC–F]

IF {route to operator if zero pressed (CDB_index = 0)}
nexstate[S6000 – Route to Operator]

IF {route to calling card call if PIN (CDB_index = 4–digit PIN)}
nextstate[S4000.2.OM}

IF {anything else entered}
nextstate [1251.3.0.3]

Otherwise
next_state [S1251.3.0.3]

S1251.3.0.3–[Check for Single Language System]

IF {Single Language System}
IF {Language entered ("17" or "19")}
IF {Ignore Language after SS (LANG_AFTER_SS = Ignore)}
next_state [S1251.A]
IF {Route to Operator if Language after SS (LANG_AFTER_SS=Operator)}
next_state [S6000 – Route to Operator]
IF {Notify caller if Language after SS (LANG_AFTER_SS=Msg)}

"Language selection is not available in this area. The call will continue in English." [OT–45A–BC–E]

Call flow for service selection (continued)

S1251.3.0.3 (cont'd)

OR

"The number as entered is incorrect."
[SS–8, SS–8A–BC–E, SS–8B–BC–E, SS–8C–BC–E,or SS–8A–BC–F]

(OT45 is datafilled with SS–8)

next_state [S1251.A – Billed # equals Called # Check]

Otherwise
next_state [S1251.A – Billed # equals Called # Check]

IF {NXX XXXX}
IF {Station is not restricted from Third–number billing}
next_state [S1252 – Incomplete 7 digit number]
Otherwise
next_state [S1259 – Incomplete number of digits]

IF {*}

IF {AudioGram is not available}

"The number as entered is not valid." [OT–11,OT–11A–BC–E,OT–11B–BC–E, OT–11A–BC–F,OT–11B–BC–F]
next_state [S1251.9 – Retry Count Check]
Otherwise
next_state [S1341 – AudioGram Billing Menu]

S1251.7.1 –[Account Code Billing not allowed]

IF {"15"}
IF {Account Code Billing not allowed}

"The number as entered is not valid." [OT–11,OT–11A–BC–E,OT–11B–BC–E, OT–11A–BC–F,OT–11B–BC–F]
next_state [S1251.9 – Retry Count Check]

Call flow for service selection (continued)

S1251.9 –[Retry Count Check]

IF {DIALING_TOTAL_RETRY limit (2) attained}
next_state [S12A0 – Too many failures]

Otherwise
next_state [S1280 – Language Check for Select at Prompt 2]

S1251.A –[Billed # equals Called # Check]

Determine station billing restrictions

IF {Station is restricted from third–number billing}

```
"Calls cannot be charged to another number
 from this telephone."
[SS-16,SS-16A-BC-E,SS-16B-BC-E,
or SS-16A-BC-F]
```

next_state [S1251.9 – Retry Count Check]

IF {Billed number = called number,
AND
Station is NOT restricted from collect}
IF {Inform caller of collect processing
(BILLED_EQ_CALLED = YES)}
IF {Front End Language undefined}
SET {Service = ThirdNum}
CALL [S5000 – Front End Language Selection]

```
"The billing number you have entered is
 the same as the number you are calling.
 Your call is now being placed as a
 collect call."
[TP-22A-BC-E or TP-22A-BC-F]
```

next_state [S2000 – Collect Call Verification]

IF {Billed number = called number,
AND
Station is restricted from collect}
next_state [S125B – Invalid number]

Call flow for service selection (continued)

S1252 – [Incomplete 7 digit number]

Service is undefined

"The number as entered is incomplete."
[OT–31,OT–31A–BC–E,OT–31B–BC–E or OT–31A–BC–F, or OT–31B–BC–F]

IF {DIALING_FORMAT_ERR limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S12A0 – Too many failures]
Otherwise
IF {Front End Language undefined}
next_state [S5000 – Front End Language selection]
Otherwise
next_state [S1253 – Reprompt for 10 digit complete number]

S1253 – [Reprompt for 10 digit complete number]

"Please enter the area code and number to which you want your call billed."
[OT–10,OT–10A–BC–E,OT–10B–BC–E, or OT–10A–BC–F]

ON{Subscriber enters digits}
next_state [S1250 – Service Selection Analysis]

ON{Subscriber does not respond (AFT_ERR_PROMPT) within 3.0 seconds}
IF {DIALING_NO_RESPONSE limit (1),
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S12A0 – Too many failures]
Otherwise
next_state [S1281 – Select Service at Prompt 2]

S1254 – [Commercial Credit Card and CCITT Extended Calling Card Check]

IF {Number fits the format of a valid Commercial Credit Card}

next_state [S4600 – Commercial Credit Card Check]

IF {Flagged as a CCITT Calling Card}
next_state [S4100.0 – Validate the Calling Card Number]
Otherwise
next_state [S1254.7 – Return to Originating State]

Call flow for service selection (continued)

S1255 – [PIN Only Check]

IF {Called number is DA, Overseas, or station is restricted from calling card}
next_state [S1256 – Continue Digit Collection with no CCV sent]

Otherwise
SEND {CCV validation}
next_state [S1257 – Continue Digit Collection with CCV sent]

S1256 – [Continue Digit Collection with no CCV sent]

Collect more digits

ON{Subscriber entered more digits}
IF {NXX XXXX, NPA NXX XXXX, NPA NXX XXXX NXXX, RAO 0/1XX XXXX NXXX, or CCITT}
next_state [S1251 – Restricted billing and overseas check]
IF {NXXX}
next_state [S125B – Invalid number]
IF {CXXXX}
next_state [125B – Error/Extended Calling Card Check]

ON{No more digits collected (INTERDIGIT – AFT_4DIGITS_PIN) within 3.0 seconds, OR "#" entered}
next_state [S125B – Invalid number]

ON{Subscriber entered incomplete number of digits}
next_state [S1259 – Incomplete Number of Digits]

ON{Subscriber entered invalid digit pattern}
next_state [S125B – Invalid number]

Call flow for service selection (continued)

S1257 – [Continue Digit Collection with CCV sent]

Collect more digits

ON{Subscriber entered more digits}
IF {NXX XXXX, NPA NXX XXXX, NPA NXX XXXX NXXX,
RAO 0/1XX XXXX NXXX, or CCITT}
next_state [S1251 – Restricted billing and overseas check]
IF {NXXX}
next_state [S4000 – Calling Card]
IF {CXXX}
next_state [125B – Error/Extended Calling Card Check]

ON{No more digits collected (INTERDIGIT – AFT_4DIGITS_PIN)
within 3.0 seconds,
OR
"#" entered}
next_state [S4000 – Calling Card]

ON{Subscriber entered incomplete number of digits}
next_state [S1259 – Incomplete Number of Digits]

ON{Subscriber entered invalid digit pattern}
next_state [S125B – Invalid number]

S1258 – [Incorrect option]

"The number as entered is incorrect."
[SS–8,SS–8A–BC–E,SS–8B–BC–E,
SS–8C–BC–E, or SS–8A–BC–F]

IF {DIALING_FORMAT_ERR limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S12A0 – Too many failures]
Otherwise
next_state [S1280 – Language Check for Serv. Sel Prompt 2]

Call flow for service selection (continued)

S1259 – [Incomplete Number of Digits]

"The number as entered is incomplete."
[OT–31,OT–31A–BC–E,OT–31B–BC–E,OT–31A–BC–F,
or OT–31B–BC–F]

IF {DIALING_FORMAT_ERR limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S12A0 – Too many failures]
Otherwise
next_state [S125A – Reprompt for Complete Number]

IF {Entry Can Be Calling Card or Commercial Credit Card}
next_state [1254 – Commercial Credit Card and CCITT
Extended Calling Card Check]

Otherwise
next_state [1259.0 – Set State to 2nd or more Service Selection]

S125A – [Reprompt for complete number]

Service is undefined

IF {Front End Language undefined}
next_state [S5000 – Front End Language selection]

Otherwise

"Please enter the complete number again."
[SS–3,SS–3A–BC–E, SS–3B–BC–E,SS–3A–BC–F,
or SS–3B–BC–F]

ON{Subscriber enters digits}
next_state [S1250 – Service Selection Analysis]

ON{Subscriber does not respond (AFT_ERR_PROMPT)
within 3.0 seconds}
IF {DIALING_NO_RESPONSE limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S12A0 – Too many failures]
Otherwise
next_state [S1281 – Select Service at Prompt 2]

Call flow for service selection (continued)

S125B – [Invalid Digit Pattern – Check for CCITT Calling Card and Commercial Credit Card]

IF {Entry Can Be a Calling Card or Commercial Credit Card}
next_state [S1254 – CCITT Extended Calling Card Check]
Otherwise
next_state [S125B.0 – Invalid Number]

S125B.0– [Invalid Number]

"The number as entered is not valid."
[OT–11,OT–11A–BC–E,OT–11B–BC–E, OT–11A–BC–F, or OT–11B–BC–F]

IF {DIALING_FORMAT_ERR limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S12A0 – Too many failures]
Otherwise
next_state [S125D – Reprompt for digits on format error]

S125D – [Reprompt for digits on format error]

Service is undefined

IF {Front End Language undefined}
next_state [S5000 – Front End Language selection]

Otherwise

"Please enter number again from the beginning."
[SS–4,SS–4A–BC–E, SS–4B–BC–E,SS–4A–BC–F, or SS–4B–BC–F]

ON {Subscriber enters digits}
next_state [S1250 – Service Selection Analysis]

ON {Subscriber does not respond (AFT_ERR_PROMPT) within 3.0 seconds}
IF {DIALING_NO_RESPONSE limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S12A0 – Too many failures]
Otherwise
next_state [S1281 – Select Service at Prompt 2]

Call flow for service selection (continued)

S1270 – [Input of 17 before Service Selection]

IF {Single Language System}
next_state [S1273 – Single language only msg]

Otherwise
IF {Front End Language defined and called from Service Menu}
next_state [S1258 – Incorrect Option]

IF {Front End Language defined and called from AudioGram Menu}
next_state [S1358 – Incorrect Option]
Otherwise
SET {Front End Language = English}
next_state [S1272 – Return to Service Selection]

S1271 – [Input of 19 before Service Selection]

IF {Single Language System}
next_state [S1273 – Single language only msg]

Otherwise
IF {Front End Language defined and called from Service Menu}
next_state [S1258 – Incorrect Option]

IF {Front End Language defined and called from AudioGram Menu}
next_state [S1358 – Incorrect Option]
Otherwise
SET {Front End Language = French}
next_state [S1272 – Return to Service Selection]

S1272 – [Return to Calling Menu after defining language]

IF {At AudioGram billing menu}
next_state [S1342.0 – Replay AudioGram Billing Menu]

IF {At first service selection or at BONG}
next_state [S1242 – Select Service Prompt 1]

Otherwise
next_state [S1281 – Select Service Prompt 2]

Call flow for service selection (continued)

S1273 – [Single Language only Msg]

IF {Transfer to operator (LANG_BEFORE_SS=Operator)}
next_state [S6000 – Route to Operator]

Otherwise

```
"Language selection is not available
 in this area.  The call will continue
 in English." [OT-45A-BC-E]
```

OR

```
"The number as entered is incorrect."
[SS-8,SS-8A-BC-E,SS-8B-BC-E, SS-8C-BC-E,
or SS-8A-BC-F]  (OT45 is datafilled with SS-8)
```

IF {DIALING_FORMAT_ERR limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S12A0 – Too many failures]
Otherwise
next_state [S1242 – Select Service at prompt 1]

S1280 – [Language Check for Select Service at Prompt 2]

Service is undefined

IF {Front End Language undefined}
next_state [S5000 – Front End Language selection]

Otherwise
next_state [S1281 – Select Service Prompt 2]

Call flow for service selection (continued)

S1281 – [Select Service at prompt 2]

Determine station billing restrictions

IF {No restrictions}

next_state [S1281.2 – No DMS Restrictions, AudioGram Check]

IF {Calling card only}

```
"If you want    to charge this call to your
 calling card, enter your calling card number
 now to speak  to the operator, press zero."
[SS–21,SS–21A–BC–E, or SS–21A–BC–F]
```

IF {Third party only}

```
"If you want to charge this call to another
 number, enter the area code and number now to
 speak to the operator, press zero."
[SS–20,SS–20A–BC–E,  or SS–20A–BC–F]
```

IF {All types except collect – includes DA calls}

```
"If you want to charge this call to your
 calling card, enter your calling card number
 now to charge this call to another number,
 press one two to speak  to the operator,
 press zero."
[SS–22,SS–22A–BC–E, or SS–22A–BC–F]
```

IF {All types except calling card}

```
"If you want to place a collect call, press
 one one now to charge this call to another
 number, press one two to speak to the
 operator, press zero."
[SS–12,SS–12A–BC–E, SS–12A–BC–F,
or SS–12B–BC–F]
```

Call flow for service selection (continued)

S1281 (cont'd)

IF {All types except third–party}

"If you want to place a collect call, press one one now to charge this call to your calling card, enter your calling card number to speak to the operator, press zero."
[SS–12,SS–12A–BC–E,SS–12A–BC–F, or SS–12B–BC–F]

ON{Subscriber enters digits}
next_state [S1250 – Service Selection Analysis]

ON{Subscriber does not respond (AFT_ERR_PROMPT) within 3.0 seconds}
IF {DIALING_NO_RESPONSE limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S12A0 – Too many failures]
Otherwise
next_state [S1281 – Select Service at Prompt 2]

S1281.2– [Select at prompt 2 – No DMS Restrictions]

IF {AudioGram is available, and MDS billing is available}

"To charge this call to a Calling Card, enter the Calling Card number now. For a Collect call, press 1–1. To charge this call to another number, press 1–2. To send a message, press star. For person to person, and other calls, press 0 for the operator."
[SS–27A, SS–27B, SS–27A–BC–E, SS–27A–BC–F, SS–27B–BC–E, SS–27B–BC–F]

IF {AudioGram is unavailable, or MDS billing is unavailable}

"If you want to place a collect call, press one one now to charge this call to your calling card, enter your calling card number to charge this call to another number, press one two to speak to the operator, press zero."
[SS–6,SS–6A–BC–E,SS–6B–BC–E,SS–6C–BC–E, SS–6D–BC–E,SS–6A–BC–F,SS–6B–BC–F, or SS–6C–BC–F]

Call flow for service selection (continued)

S1281.2 (continued)

ON{Subscriber enters digits}
next_state [S1250 – Service Selection Analysis]

ON{Subscriber does not respond (AFT_PROMPT) within 5.0 seconds}
IF {No response to first announcement (NO_RESP_1ST_SS = 0) limit attained}
next_state [S6100 – Route to Operator]
Otherwise
next_state [S1281 – Select at prompt 2]

ON{Subscriber enters HOOK FLASH before digits}
next_state [S6000 – Route to Operator]

S12A0 – [Too many failures]

"For operator assistance, press zero."
[OT–33,OT–33A–BC–E, OT–33B–BC–E,OT–33A–BC–F, or OT–33B–BC–F]

ON{Subscriber enters "0"}
next_state [S6000 – Route to Operator]

ON{Subscriber does not respond (REQ_OP_ON_ERR) within 3.0 seconds}

"Please hang up and try your call again."
[OT–14,OT–14A–BC–E, or OT–14A–BC–F]

Abort the call.
Release TABS resources

ON{Subscriber went on hook}
Abort the call.
Release TABS resources

S1300 – [Alternate Billing Setup]

SETUP {Alternate Billing}
next_state [S1300.8 – Determine the Calling Menu]

S1300.8– [Determine Calling Menu]

IF {AudioGram Alternate Billing}
next_state [S1342.0 – Replay AudioGram Billing Menu]

Otherwise
next_state[S1281 – Service Selection Retry Menu]

TOPS VSN enhancement for language handoff

AABS call flows proceeds in the following manner when TOPS VSN enhancement for language handoff is present.

- When an operator handoff call is received from the DMS, the VSN determines if language was passed in the Call Begin message.
- If both the subscriber and billed party languages are passed, the VSN verifies that they are valid.
- If both languages are valid, the VSN proceeds with call processing as usual, omitting language selection prompting.
- If one or both languages are invalid, the VSN rejects the call and transfers the call back to the DMS.
- If only one language is passed, the VSN rejects the call and transfers the call back to the DMS. The VSN requires both languages to be passed if the DMS has language passing capabilities.
- If neither language is passed, both languages default to the language datafilled in the office parameter Operator_Lang. In this case, it is assumed that the DMS is a BCS32 or earlier release and does not have language passing capabilities. The VSN proceeds with call processing as usual, omitting language selection prompting.

Call flow for AudioGram billing menu

S1341 – [AudioGram Billing Menu Setup]

Initialize Billing Menu

next_state [S1342 – Play Welcome Message]

S1342 – [AudioGram Billing Menu Welcome]

"You have chosen Star Messenger Service."

[MD–25A, MD–25B, MD–25C, MD–25A–BC–E, MD–25B–BC–E, MD–25C–BC–E, MD–25A–BC–F, MD–25B–BC–F, MD–25C–BC–F, MD–25D–BC–F, MD–25E–BC–F]

[<MD–25D–BC–E, MD–25E–BC–E> + <MD–9A–BC–E, MD–9B–BC–E>]

ON{Prompt completes or subscriber enters digits}

next_state [S1342.0 – Play AudioGram Billing Menu]

S1342.0– [AudioGram Billing Menu]

Determine MDS billing restrictions

IF {No MDS restrictions}

"To charge this message to a Calling Card, enter the Calling Card number now. For a Collect message, press 1–1. To charge this message to another number, press 1–2. To charge this message to the number you are calling from, press 1–3, or press 0 for the operator."

[MD–24A, MD–24B, MD–24C, MD–24D, MD–24A–BC–E, MD–24B–BC–E, MD–24C–BC–E, MD–24D–BC–E, MD–24A–BC–F, MD–24B–BC–F, MD–24C–BC–F, MD–24D–BC–F, MD–24E–BC–F, MD–24F–BC–F]

IF {MDS Calling Card, Bill Third, and Sent Paid billing available}

"To charge this message to a Calling Card, enter the Calling Card number now. To charge this message to another number, press 1–2. To charge this message to the number you are calling from, press 1–3. To speak to the operator, press zero."

Call flow for AudioGram billing menu (continued)

S1342.0 (cont'd)

[<MD–22A, MD–22B, MD–22C, MD–22D> + MD–23A + <MD–20A, MD–20B> + <SS–32A, SS–32B> || <MD–22A–BC–E, MD–22B–BC–E, MD–22C–BC–E, MD–22D–BC–E> + MD–23A–BC–E + <MD–20A–BC–E, MD–20B–BC–E> + <SS–32A–BC–E, SS–32B–BC–E> || <MD–22A–BC–F, MD–22B–BC–F, MD–22C–BC–F, MD–22D–BC–F> + <MD–23A–BC–F, MD–23B–BC–F> + <MD–20A–BC–F, MD–20B–BC–F, MD–20C–BC–F, MD–20D–BC–F, MD–20E–BC–F, MD–20F–BC–F> + <SS–32A–BC–F, SS–32B–BC–F>]

IF {MDS Collect, Bill Third, and Sent Paid billing available}

"For a Collect message, press 1–1. To charge this message to another number, press 1–2. To charge this message to the number you are calling from, press 1–3. To speak to the operator, press zero."

[MD–21A + MD–23A + <MD–20A, MD–20B> + <SS–32A, SS–32B> || MD–21A–BC–E + MD–23A–BC–E + <MD–20A–BC–E, MD–20B–BC–E> + <SS–32A–BC–E, SS–32B–BC–E> || MD–21A–BC–F + <MD–23A–BC–F, MD–23B–BC–F> + <MD–20A–BC–F, MD–20B–BC–F, MD–20C–BC–F, MD–20D–BC–F, MD–20E–BC–F, MD–20F–BC–F> + <SS–32A–BC–F, SS–32B–BC–F>]

IF {MDS Bill Third, and Sent Paid billing available}

"To charge this message to another number, press 1–2. To charge this message to the number you are calling from, press 1–3. To speak to the operator, press zero."

[MD–23A + <MD–20A, MD–20B> + <SS–32A, SS–32B> || MD–23A–BC–E + <MD–20A–BC–E, MD–20B–BC–E> + <SS–32A–BC–E, SS–32B–BC–E> || <MD–23A–BC–F, MD–23B–BC–F> + <MD–20A–BC–F, MD–20B–BC–F, MD–20C–BC–F, MD–20D–BC–F, MD–20E–BC–F, MD–20F–BC–F> + <SS–32A–BC–F, SS–32B–BC–F>]

Call flow for AudioGram billing menu (continued)

S1342.0 (cont'd)

IF {MDS Calling Card, Collect, and Sent Paid billing available}

"To charge this message to a Calling Card, enter the Calling Card number now. For a Collect message, press 1–1. To charge this message to the number you are calling from, press 1–3. To speak to the operator, press zero."

[<MD–22A, MD–22B, MD–22C, MD–22D> + MD–21A + <MD–20A, MD–20B> + <SS–32A, SS–32B> || <MD–22A–BC–E, MD–22B–BC–E, MD–22C–BC–E, MD–22D–BC–E> + MD–21A–BC–E + <MD–20A–BC–E, MD–20B–BC–E> + <SS–32A–BC–E, SS–32B–BC–E> || <MD–22A–BC–F, MD–22B–BC–F, MD–22C–BC–F, MD–22D–BC–F> + MD–21A–BC–F + <MD–20A–BC–F, MD–20B–BC–F, MD–20C–BC–F, MD–20D–BC–F, MD–20E–BC–F, MD–20F–BC–F> + <SS–32A–BC–F, SS–32B–BC–F>]

IF {MDS Calling Card, and Sent Paid billing available}

"To charge this message to a Calling Card, enter the Calling Card number now. To charge this message to the number you are calling from, press 1–3. To speak to the operator, press zero."

[<MD–22A, MD–22B, MD–22C, MD–22D> + <MD–20A, MD–20B> + <SS–32A, SS–32B> || <MD–22A–BC–E, MD–22B–BC–E, MD–22C–BC–E, MD–22D–BC–E> + <MD–20A–BC–E, MD–20B–BC–E> + <SS–32A–BC–E, SS–32B–BC–E> || <MD–22A–BC–F, MD–22B–BC–F, MD–22C–BC–F, MD–22D–BC–F> + <MD–20A–BC–F, MD–20B–BC–F, MD–20C–BC–F, MD–20D–BC–F, MD–20E–BC–F, MD–20F–BC–F> + <SS–32A–BC–F, SS–32B–BC–F>]

IF {MDS Collect, and Sent Paid billing available}

"For a Collect message, press 1–1. To charge this message to the number you are calling from, press 1–3. To speak to the operator, press zero."

Call flow for AudioGram billing menu (continued)

S1342.0 (cont'd)

```
[MD–21A +  <MD–20A, MD–20B> + <SS–32A, SS–32B>
|| MD–21A–BC–E + <MD–20A–BC–E, MD–20B–BC–E> +
<SS–32A–BC–E, SS–32B–BC–E> || MD–21A–BC–F +
<MD–20A–BC–F, MD–20B–BC–F, MD–20C–BC–F,
MD–20D–BC–F, MD–20E–BC–F, MD–20F–BC–F>  +
<SS–32A–BC–F, SS–32B–BC–F>]
```

IF {MDS Sent Paid billing available}

```
" To charge this message to the number you
are calling from, press 1–3. To speak to the
operator, press zero."
```

```
[<MD–20A, MD–20B> + <SS–32A, SS–32B> ||
<MD–20A–BC–E, MD–20B–BC–E> + <SS–32A–BC–E,
SS–32B–BC–E> ||  <MD–20A–BC–F, MD–20B–BC–F,
MD–20C–BC–F, MD–20D–BC–F, MD–20E–BC–F,
MD–20F–BC–F>  + <SS–32A–BC–F, SS–32B–BC–F>]
```

IF {MDS Calling Card, Collect, and Bill Third billing available}

```
"To charge this message to a Calling Card,
enter the Calling Card number now. For a
Collect message, press 1–1.  To charge this
message to another number, press 1–2.. To
speak to the operator, press zero."
```

```
[<MD–22A, MD–22B, MD–22C, MD–22D> + MD–21A +
MD–23A + <SS–32A, SS–32B> || <MD–22A–BC–E,
MD–22B–BC–E, MD–22C–BC–E, MD–22D–BC–E> +
MD–21A–BC–E + MD–23A–BC–E + <SS–32A–BC–E,
SS–32B–BC–E> || <MD–22A–BC–F, MD–22B–BC–F,
MD–22C–BC–F, MD–22D–BC–F> + MD–21A–BC–F +
<MD–23A–BC–F, MD–23B–BC–F>  + <SS–32A–BC–F,
SS–32B–BC–F>]
```

IF {MDS Calling Card, and Bill Third billing available}

```
"To charge this message to a Calling Card,
enter the Calling Card number now. To charge
this message to another number, press 1–2. To
speak to the operator, press zero."
```

Call flow for AudioGram billing menu (continued)

S1342.0 (cont'd)

```
[<MD–22A, MD–22B, MD–22C, MD–22D> + MD–23A
+<SS–32A,  SS–32B> || <MD–22A–BC–E,
MD–22B–BC–E, MD–22C–BC–E, MD–22D–BC–E> +
MD–23A–BC–E + <SS–32A–BC–E, SS–32B–BC–E> ||
<MD–22A–BC–F, MD–22B–BC–F, MD–22C–BC–F,
MD–22D–BC–F> + <MD–23A–BC–F, MD–23B–BC–F>  +
<SS–32A–BC–F, SS–32B–BC–F>]
```

IF {MDS Collect, and Bill Third billing available}

```
"For a Collect message, press 1–1.  To charge
this message to another number, press 1–2. To
speak to the operator, press zero."

[ MD–21A + MD–23A + <SS–32A, SS–32B> ||
MD–21A–BC–E + MD–23A–BC–E + <SS–32A–BC–E,
SS–32B–BC–E> ||  MD–21A–BC–F + <MD–23A–BC–F,
MD–23B–BC–F> + <SS–32A–BC–F, SS–32B–BC–F>]
```

IF {MDS Bill Third billing available}

```
"To charge this message to another number,
press 1–2. To speak to the operator, press
zero."

[ MD–23A + <SS–32A, SS–32B> ||  MD–23A–BC–E +
<SS–32A–BC–E, SS–32B–BC–E> ||  <MD–23A–BC–F,
MD–23B–BC–F> + <SS–32A–BC–F,  SS–32B–BC–F>]
```

IF {MDS Calling Card, and Collect billing available}

```
"To charge this message to a Calling Card,
enter the Calling Card number now. For a
Collect message, press 1–1. To speak to the
operator, press zero."

[<MD–22A, MD–22B, MD–22C, MD–22D> + MD–21A +
<SS–32A, SS–32B> || <MD–22A–BC–E, MD–22B–BC–E,
MD–22C–BC–E, MD–22D–BC–E> + MD–21A–BC–E  + <
SS–32A–BC–E, SS–32B–BC–E> || <MD–22A–BC–F,
MD–22B–BC–F, MD–22C–BC–F, MD–22D–BC–F> +
MD–21A–BC–F + <SS–32A–BC–F, SS–32B–BC–F>]
```

Call flow for AudioGram billing menu (continued)

S1342.0 (cont'd)

IF {MDS Calling Card billing available}

"To charge this message to a Calling Card, enter the Calling Card number now. To speak to the operator, press zero."

[<MD–22A, MD–22B, MD–22C, MD–22D> + <SS–32A, SS–32B> || <MD–22A–BC–E, MD–22B–BC–E, MD–22C–BC–E, MD–22D–BC–E> + <SS–32A–BC–E, SS–32B–BC–E> || <MD–22A–BC–F, MD–22B–BC–F, MD–22C–BC–F, MD–22D–BC–F> + <SS–32A–BC–F, SS–32B–BC–F>]

IF {MDS Collect billing available}

"For a Collect message, press 1–1. To speak to the operator, press zero."

[MD–21A + <SS–32A, SS–32B> || MD–21A–BC–E + <SS–32A–BC–E, SS–32B–BC–E> || MD–21A–BC–F + <SS–32A–BC–F, SS–32B–BC–F>]

IF {No MDS billing available}

"Please hang up and try your call again."

[OT–14A, OT–14A–BC–E, OT–14A–BC–F]

ON{Subscriber enters digits}
next_state [S1350 – Billing Selection Analysis]

ON{Subscriber enters invalid pattern}
next_state [S135B – Invalid Number]

ON{Subscriber enters digits not matching patterns and times out}
next_state [S1359 – Incomplete Number]

ON{Subscriber doesn't enter any digits}
next_state [S1343 – Check Retry count]

ON{Subscriber enters HOOK FLASH before digits}
next_state [S6000 – Route to Operator]

Call flow for AudioGram billing menu (continued)

S1343 – [Check Retry Count]

IF {NO_RESP_RETRY limit attained}
next_state [S6100 – Route to Operator]

Otherwise
next_state [S1342.0 – Replay AudioGram billing menu]

S1350 – [AudioGram Billing Selection Analysis]

ON{Subscriber entered “0”}
next_state [S6000 – Route to Operator]

ON{Subscriber entered “11”, “12”, “13”, NPA NXX XXXX NXXX, CCITT, RAO 0/1XX XXXX NXXXX}
next_state [S1351 – AudioGram Restricted billing checks]

ON{Subscriber entered NPA NXX XXXX}
next_state [S1251 – Service Selection Restricted billing checks]

ON{Subscriber entered NXX XXXX}
next_state [S1352 – 7 Digit / CC Resolution]

ON{Subscriber entered CXXXX}
next_state [S135B – Error / Enhanced Calling Card Check]

ON{Subscriber entered “17”}
next_state [S1270 – DTMF Recognized 17]

ON{Subscriber entered “19”}
next_state [S1271 – DTMF Recognized 19]

ON{Subscriber entered 1 digit or 2 digits other than “0”, “11”, “12”, “13”, “17” or “19”}
next_state [S1358 – Invalid Number]

ON{Subscriber entered NXXX}
next_state [S1355 – PIN only check]

Call flow for AudioGram billing menu (continued)

S1351 – [AudioGram Restricted billing checks]

Determine AudioGram billing restrictions

IF {"11"}

IF {Called number is DA}

"DIrectory assistance cannot accept collect calls."
[SS–14, SS–14A–BC–E, SS–14A–BC–F]
next_state [S135F – Retry Count Check]

IF {Called number is overseas}
next_state [S6000 – Route to Operator]

IF {Calling station is restricted from Collect calls}

IF {Route to Operator (COLLECT_RESTRICT_AT_CB = OPERATOR)}
next_state [S6000 – Route to Operator]

IF {Inform caller (COLLECT_RESTRICT_AT_CB = MSG)}

"This call may not be billed as collect."
[SS–23, SS–23A–BC–E, SS–23A–BC–F]
next_state [S135F – Retry Count Check]

Otherwise
next_state [S2000 – Collect Call Verification]

IF {"12"}

IF {Calling station is restricted from 3rd number billing}

"Calls cannot be charged to another number from this telephone."
[SS–16, SS–16A–BC–E, SS–16A–BC–F]
next_state [S135F – Retry Count Check]

Otherwise
next_state [S3500 – Collect 10 Digits]

Call flow for AudioGram billing menu (continued)

S1351 (cont'd)

IF {"13"}

IF {Calling station is restricted from Sent Paid billing}

"That option is not available. Please select one of the following options."
[<MD–26A, MD–26B> || <MD–26A–BC–E, MD–26B–BC–E> || <MD–26A–BC–F, MD–26B–BC–F>]
next_state [S135F – Retry Count Check]

Otherwise
next_state [SB600 – Screen for MDS Offer of Service]

IF {NPA NXX XXXX or NPA NXX XXXX#}
next_state [S1251 – NPA NXX XXXX section]

IF {NPA NXX XXXX NXXX, RAO 0/1XX XXXX NXXX, or valid CCITT}

IF {Station is restricted from Calling Card billing}

"Calling Card calls cannot be made from this telephone."
[SS–17, SS–17A–BC–E, SS–17A–BC–F]
next_state [S135F – Retry Count Check]

Otherwise
IF {Valid CCITT}
next_state [S4100 – Query CCV]

Otherwise
next_state [S4000 – Calling Card Handling]

IF {NXX XXXX}
IF {Station is not restricted from Third–number billing}
next_state [S1352 – Incomplete 7 digit number]
Otherwise
next_state [S1359 – Incomplete number of digits]

Call flow for AudioGram billing menu (continued)

S1351 (cont'd)

IF {NXXX#}
IF {Called number is DA or Overseas}
next_state [S135B – Invalid number]
IF {Station is restricted from calling card billing}

"Calling card calls cannot be made from this telephone."
[SS–17, SS–17A–BC–E, SS–17B–BC–E, or SS–17A–BC–F]
next_state [S135F – Retry Count Check]

Otherwise
IF {Valid_CCITT}
next_state [S4100 – Query CCV]
Otherwise
next_state [S4000 – Calling Card Handling]

S1352 – [Incomplete 7 digit number]

Service is undefined

"The number as entered is incomplete."
[OT–31, OT–31A–BC–E, OT–31B–BC–E or OT–31A–BC–F, or OT–31B–BC–F]

IF {DIALING_FORMAT_ERR limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S12A0 – Too many failures]
Otherwise
IF {Front End Language undefined}
next_state [S5000 – Front End Language selection]
Otherwise
next_state [S1352.A – Reprompt for 10 digit complete number]

Call flow for AudioGram billing menu (continued)

S1352.A– [Reprompt for 10 digit complete number]

"Please enter the area code and number to which you want your call billed."
[OT–10, OT–10A–BC–E, OT–10B–BC–E, or OT–10A–BC–F]

ON{Subscriber enters digits}
next_state [S1350 – Billing Selection Analysis]

ON{Subscriber does not respond (AFT_ERR_PROMPT) within 3.0 seconds}
IF {DIALING_NO_RESPONSE limit (1), OR DIALING_TOTAL_RETRY limit (2) attained}
next_state [S12A0 – Too many failures]
Otherwise
next_state [S1342.0 – Select Billing at Prompt 2]

S1355 – [PIN Only Check]

IF {Called number is DA, Overseas, or station is restricted from calling card}
next_state [S1356 – Continue Digit Collection with no CCV sent]

Otherwise
SEND {CCV validation}
next_state [S1357 – Continue Digit Collection with CCV sent]

S1356 – [Continue Digit Collection with no CCV sent]

Collect more digits

ON{Subscriber entered more digits}
IF {NXX XXXX, NPA NXX XXXX, NPA NXX XXXX NXXX, RAO 0/1XX XXXX NXXX, Commercial Credit Card or CCITT}
next_state [S1351 – Restricted billing and overseas check]
IF {NXXX}
next_state [S135B – Invalid number]
IF {CXXXX}
next_state [S135B – Error/Extended Calling Card Check]

Call flow for AudioGram billing menu (continued)

S1356 (cont'd)

ON{No more digits collected (INTERDIGIT – AFT_4DIGITS_PIN)
within 3.0 seconds,
OR
"#" entered}
next_state [S135B – Invalid number]

ON{Subscriber entered incomplete number of digits}
next_state [S1359 – Incomplete Number of Digits]

ON{Subscriber entered invalid digit pattern}
next_state [S135B – Invalid number]

S1357 – [Continue Digit Collection with CCV sent]

Collect more digits

ON{Subscriber entered more digits}
IF {NXX XXXX, NPA NXX XXXX, NPA NXX XXXX NXXX,
RAO 0/1XX XXXX NXXX, or CCITT}
next_state [S1351 – Restricted billing and overseas check]
IF {NXXX}
next_state [S4000 – Calling Card]
IF {CXXX}
next_state [135B – Error / Extended Calling Card Check]

ON{No more digits collected (INTERDIGIT – AFT_4DIGITS_PIN)
within 3.0 seconds,
OR
"#" entered}
next_state [S4000 – Calling Card]

ON{Subscriber entered incomplete number of digits}
next_state [S1359 – Incomplete Number of Digits]

ON{Subscriber entered invalid digit pattern}
next_state [S135B – Invalid number]

Call flow for AudioGram billing menu (continued)

S1358 – [Incorrect option]

"The number as entered is incorrect."
[SS–8,SS–8A–BC–E,SS–8B–BC–E,
SS–8C–BC–E, or SS–8A–BC–F]

IF {DIALING_FORMAT_ERR limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S12A0 – Too many failures]

Otherwise
next_state [S1342.0 – Replay Billing Menu Prompt]

S1359 – [Incomplete Number of Digits]

"The number as entered is incomplete."
[OT–31,OT–31A–BC–E,
OT–31B–BC–E,OT–31A–BC–F, or OT–31B–BC–F]

IF {DIALING_FORMAT_ERR limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S12A0 – Too many failures]
Otherwise
next_state [S135A – Reprompt for Complete Number]

IF {Entry Can Be Calling Card}
next_state [1254 – CCITT Extended Calling Card Check]
Otherwise
next_state [1359.0 – Set State to 2nd or more Service Selection]

S135A – [Reprompt for complete number]

"Please enter the complete number again."
[SS–3,SS–3A–BC–E,
SS–3B–BC–E,SS–3A–BC–F, or SS–3B–BC–F]

ON{Subscriber enters digits}
next_state [S1350 – Service Selection Analysis]

ON{Subscriber does not respond (AFT_ERR_PROMPT)
within 3.0 seconds}
IF {DIALING_NO_RESPONSE limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S12A0 – Too many failures]
Otherwise
next_state [S1342.0 – Replay Billing Menu prompt]

Call flow for AudioGram billing menu (continued)

S135B – [Invalid Digit Pattern – Check for CCITT Calling Card and Commercial Credit Card]

IF {Entry Can Be a Calling Card or Commercial Credit Card}
next_state [S1254 – CCITT Extended Calling Card Check]
Otherwise
next_state [S125B.0 – Invalid Number]

S135B.0– [Invalid Number]

"The number as entered is not valid."
[OT–11,OT–11A–BC–E,OT–11B–BC–E, OT–11A–BC–F,
or OT–11B–BC–F]

IF {DIALING_FORMAT_ERR limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S12A0 – Too many failures]

Otherwise
next_state [S135D – Reprompt for digits on format error]

S135D – [Reprompt for digits on format error]

"Please enter number again from the beginning."
[SS–4,SS–4A–BC–E,SS–4B–BC–E,SS–4A–BC–F,
or SS–4B–BC–F]

ON {Subscriber enters digits}
next_state [S1350 – Service Selection Analysis]

ON {Subscriber does not respond (AFT_ERR_PROMPT)
within 3.0 seconds}
IF {DIALING_NO_RESPONSE limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S12A0 – Too many failures]
Otherwise
next_state [S1342.0 – Replay Billing Menu]

S135F – [Retry Count Check]

IF { DIALING_TOTAL_RETRY limit (2) attained}
next_state [S12A0 – Too many failures]

Otherwise
next_state [S1342.0 – Replay Billing Menu prompt]

Call flow for collect calls

S2000 – [Collect call verification]

SET {Service = Collect}

SEND {BNS validation}

ON{Receipt of response to BNS query}
next_state [S2120 – Database response analysis]

S2120 – [Database response analysis]

ON{Database Response}
IF {Verification not needed}
next_state [SB600 – MDS offer of service]
IF {Manual Verification needed}
next_state [S6000 – Route to Operator]
IF {Verbal acceptance needed}
IF {Front End Language undefined}
CALL [S5000 – Front End Language selection]
next_state [S2123 – Locality Check (Collect)]
IF {Billing denied}
next_state [S2120.A – Billing Denied Handling]

ON{Unable to obtain database response}
IF {BNS_QUERY_FAILURE = VERIFY}
IF {Front End Language undefined}
CALL [S5000 – Front End Language selection]
next_state [S2123 – Locality Check (Collect)]
IF {BNS_QUERY_FAILURE = OPERATOR}
next_state [S6000 – Route to Operator]
IF {BNS_QUERY_FAILURE = ACCEPT}
IF {custom branding Thank You prompt available}

```
Play  Thank You Custom Brand prompt
[OT12_CB]
```

Otherwise

```
“Thank you.”
[OT–12A–BC–E,OT–12B–BC–E,
 OT–12A–BC–F, or OT–12B–BC–F]
```

Complete the call.
Release TABS resources.
IF {BNS_QUERY_FAILURE = REJECT}

Call flow for collect calls (continued)

S2120 (cont'd)

"Your call could not be completed. Please hang up and try your call later."
[OT–5,OT–5A–BC–E, or OT–5A–BC–F]

Abort the call.
Release TABS resources.

S2120.A– [Billing Denied Handling]

IF {Billing number is non–working number or vacant code}

"The number you have dialed is not in service. Please check the number and try your call again."
[CS–2, CS–2A–BC–E, or CS–2A–BC–F]

Abort the call.
Release TABS resources.

IF {Billing denied for other reason}

"Your call could not be completed. Please hang up and try your call later."
[OT–5,OT–5A–BC–E, or OT–5A–BC–F]

Abort the call.
Release TABS resources.

IF {Prison call}
IF {Billing number does not accept collect calls}

"At the customer's request, calls may not be charged to this number."
[TP–3,TP–3A–BC–E,TP–3B–BC–E,
or TP–3A–BC–F] "Please hang up now."
[OT–22,OT–22A–BC–E, or OT–22A–BC–F]

Abort the call.
Release TABS resources.

Call flow for collect calls (continued)

S2120.A (cont'd)

IF {Billing number is a public phone number}

"The billing number you have entered is a public telephone which cannot accept charges."
[TP–4,TP–4A–BC–E,TP–4B–BC–E, TP–4C–BC–E,TP–4D–BC–E, or TP–4A–BC–F]
"Please hang up now."
[OT–22,OT–22A–BC–E, or OT–22A–BC–F]

Abort the call.
Release TABS resources.

IF {Non–Prison Call}

IF {Billing number does not accept collect calls}
next_state [S2120.B – Billing Denied – Private]

IF {Billing number is a public phone number}
next_state [S2120.C – Billing Denied – Public]

S2120.B– [Billing Denied – Private]

IF {In USA}
IF {COLLECT_TO_PRV_BNS = OPERATOR}
next_state [S6000 – Route to Operator]
Otherwise

"At the customer's request, collect calls may not be made to this number. Please hang up and try another billing option."
[CS–7,CS–7A–BC–E, or CS–7A–BC–F]

Abort the call.
Release TABS resources.

IF {In Canada}
IF {COLLECT_TO_PRV_BNS = OPERATOR}
next_state [S6000 – Route to Operator]
IF {COLLECT_TO_PRV_BNS = REJECT}

"At the customer's request, collect calls may not be placed to this number."
[CS–7,CS–7A–BC–E, or CS–7A–BC–F] "Please hang up now." [OT–22,OT–22A–BC–E, or OT–22A–BC–F]

Call flow for collect calls (continued)

S2120.B (cont'd)

Abort the call.
Release TABS resources.

IF {COLLECT_TO_PRV_BNS = ALTBILL}
IF {collect only}

"At the customer's request, collect calls may not be placed to this number."
[CS–7,CS–7A–BC–E or CS–7A–BC–F]
"Please hang up now."
[OT–22,OT–22A–BC–E, or OT–22A–BC–F]

Abort the call.
Release TABS resources.

Otherwise
IF {Front End Language undefined}
CALL [S5000 – Front End Language selection]

"At the customer's request, collect calls may not be placed to this number."
[CS–7,CS–7A–BC–E, or CS–7A–BC–F]

SET {Service = undefined}
SET {collect_restricted = TRUE}
next_state [S1281 – Select Service at prompt 2]

S2120.C– {Billing Denied – Public}

IF {In USA}
IF {COLLECT_TO_PUB = OPERATOR}
next_state [S6000 – Route to Operator]
Otherwise

"The number you have dialed is a public telephone at which collect calls cannot be accept. Please hang up and try another billing option."
[CS–8,CS–8A,CS–8A–BC–E,
CS–8B–BC–E,CS–8C–BC–E,CS–8A–BC–F]

Abort the call.
Release TABS resources.

Call flow for collect calls (continued)

S2120.C (cont'd)

IF {In Canada}
IF {COLLECT_TO_PUB = OPERATOR}
next_state [S6000 – Route to Operator]
IF {COLLECT_TO_PUB = REJECT}

"The number you have dialed is a public telephone which cannot accept collect calls."
[CS–8,CS–8A,CS–8A–BC–E, CS–8B–BC–E,CS–8C–BC–E, or CS–A–BC–F]
"Please hang up now."
[OT–22,OT–22A–BC–E, or OT–22A–BC–F]

Abort the call.
Release TABS resources.

IF {COLLECT_TO_PUB = ALTBILL}
IF {collect only}

"The number you have dialed is a public telephone which cannot accept collect calls."
[CS–8, CS–8A,CS–8A–BC–E, CS–8B–BC–E,CS–8C–BC–E, or CS–8A–BC–F]
"Please hang up now."
[OT–22,OT–22A–BC–E, or OT–22A–BC–F]

Abort the call
Release resources
Otherwise
IF{Front End Language undefined}
CALL [S5000 – Front End Language selection]

"The number you have dialed is a public telephone which cannot accept collect calls."
[CS–8,CS–8A,CS–8A–BC–E, CS–8B–BC–E,CS–8C–BC–E, or CS–8A–BC–F]

Call flow for collect calls (continued)

S2120.C (cont'd)

SET {Service = undefined}
SET {collect_restricted = TRUE}
next_state [S1281 – Select Service at prompt 2]

S2123 – [Locality Check (Collect)]

IF {LOCALITY_CHECK = NONE}
next_state [S2130 – Record Name Check]

IF {LOCALITY_CHECK = ALL}
next_state [S2124 – Locality Treatment]

IF {LOCALITY_CHECK = SCREEN}
IF {Screening code is datafilled in LOC_SCREEN_CODES}
next_state [S2124 – Locality Treatment]
Otherwise
next_state [S2130 – Record Name Check]

S2124 – [Locality Treatment]

IF {Locality prompt exists for DN}
next_state [S2302 – Back End Language Check]

Otherwise
next_state [S2130 – Record Name Check]

ON{Locality Database Failure}
next_state [S2125 – Handle Database Failure]

S2125 – [Handle Database Failure]

IF {Prison Call}
IF {LOC_DEFAULT_PROMPT = NONE,
OR
LOC_DEFAULT_PROMPT = NONPRISON}
next_state [S6300 – Route to Operator}

IF {LOC_DEFAULT_PROMPT = ALL,
OR
LOC_DEFAULT_PROMPT = PRISON}
next_state [S2302 – Back End Language Check]

IF {Non–Prison Call}
IF {LOC_DEFAULT_PROMPT = NONE,
OR
LOC_DEFAULT_PROMPT = PRISON}
next_state [S6400 – Route to Operator}

Call flow for collect calls (continued)

S2125 (cont'd)

IF {LOC_DEFAULT_PROMPT = ALL,
OR
LOC_DEFAULT_PROMPT = NONPRISON}
next_state [S2302 – Back End Language Check]

S2130 – [Record Name Check]

IF {call originated from prison
(screening code in table SCREENING_CODES with PRISON or PRISON_NO_OPER)}
next_state [S2140 – Prison caller's name check]

Otherwise
next_state [S2150 – Non–prison caller's name check]

S2140 – [Prison caller's name check]

IF {RECORD_NAME_PRISON = YES}
next_state [S2209 – Prompt for name]
Otherwise
next_state [S2302 – Back End Language Check]

S2150 – [Non–prison caller's name check]

IF {RECORD_NAME_NON_PRISON = YES}
next_state [S2209 – Prompt for name]
Otherwise
next_state [S2302 – Back End Language Check]

S2209 – [Bypass name recording for AudioGram]

Determine if call is an AudioGram call

IF {AudioGram has been selected}
next_state [S2303 – Skip past name recording]
Otherwise
next_state [S2210 – Name Recording]

S2210 – [Prompt for name]

"At the tone, please say your name. (Beep Tone)."
[OT–8,OT–8A,OT–8B,OT–8C,OT–8A–BC–E,OT–8B–BC–E, OT–8C–BC–E,OT–8A–BC–F, or OT–8B–BC–F]

ON{Name recorded}
next_state [S2300 – Connect Party Setup]

Call flow for collect calls (continued)

S2210 (cont'd)

ON{No speech response (NAME_RECORD_WAIT_TIME)
within 4.0 seconds}
IF {NAME_NO_RESPONSE limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S22A0 – Retry attained]
Otherwise
next_state [S2240 – Reprompt for name on no response]

ON{Speech too soon}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S2300 – Connect Party Setup]
Otherwise
next_state [S2250 – Reprompt after speech too soon]

ON{Speech longer than (NAME_RECORD_DURATION) 2.5 seconds}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S2300 – Connect Party Setup]
Otherwise
next_state [S2270 – Reprompt after speech too long]

ON{Other error}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S22A0 – Retry attained]
Otherwise
next_state [S2290 – Reprompt after other error]

Call flow for collect calls (continued)

S2240 – [Reprompt for name on no response]

"Your name was not heard. At the tone, please say your name. (Beep Tone)."
[OT–9,OT–9A,OT–9A–BC–E,OT–9B–BC–E,OT–9A–BC–F, OT–9B–BC–F]

ON{Name recorded}
next_state [S2300 – Connect Party Setup]

ON{No speech response (NAME_RECORD_WAIT_TIME) within 4.0 seconds}
IF {NAME_NO_RESPONSE limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S22A0 – Retry attained]
Otherwise
next_state [S2240 – Reprompt for name on no response]

ON{Speech too soon}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S2300 – Connect Party Setup]
Otherwise
next_state [S2250 – Reprompt after speech too soon]

ON{Speech longer than (NAME_RECORD_DURATION) 2.5 seconds}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S2300 – Connect Party Setup]
Otherwise
next_state [S2270 – Reprompt after speech too long]

ON{Other error}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S22A0 – Retry attained]
Otherwise
next_state [S2290 – Reprompt after other error]

Call flow for collect calls (continued)

S2250– [Reprompt after speech too soon]

"Please wait until after the tone before saying your name. (Beep Tone)"
[OT–2,OT–2A,OT–2A–BC–E,OT–2B–BC–E,OT–2A–BC–F, or OT–2B–BC–F]

ON{Name recorded}
next_state [S2300 – Connect Party Setup]

ON{No speech response (NAME_RECORD_WAIT_TIME) within 4.0 seconds}
IF {NAME_NO_RESPONSE limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S22A0 – Retry attained]
Otherwise
next_state [S2240 – Reprompt for name on no response]

ON{Speech too soon}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S2300 – Connect Party Setup]
Otherwise
next_state [S2250 – Reprompt after speech too soon]

ON{Speech longer than (NAME_RECORD_DURATION) 2.5 seconds}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S2300 – Connect Party Setup]
Otherwise
next_state [S2270 – Reprompt after speech too long]

ON{Other error}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S22A0 – Retry attained]
Otherwise
next_state [S2290 – Reprompt after other error]

Call flow for collect calls (continued)

S2270 – [Reprompt after speech too long]

"Your response was too long. At the tone, please state just your name. (Beep Tone)."
[OT–30,OT–30A,OT–30A–BC–E,OT–30B–BC–E, OT–30C–BC–E, OT–30A–BC–F,OT–30B–BC–F, or OT–30C–BC–F]

ON{Name recorded}
next_state [S2300 – Connect Party Setup]

ON{No speech response (NAME_RECORD_WAIT_TIME) within 4.0 seconds}
IF {NAME_NO_RESPONSE limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S22A0 – Retry attained]
Otherwise
next_state [S2240 – Reprompt for name on no response]

ON{Speech too soon}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S2300 – Connect Party Setup]
Otherwise
next_state [S2250 – Reprompt after speech too soon]

ON{Speech longer than (NAME_RECORD_DURATION) 2.5 seconds}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S2300 – Connect Party Setup]
Otherwise
next_state [S2270 – Reprompt after speech too long]

ON{Other error}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S22A0 – Retry attained]
Otherwise
next_state [S2290 – Reprompt after other error]

Call flow for collect calls (continued)

S2290 – [Reprompt after other error]

"Your name was not heard. At the tone, please say your name. (Beep Tone)."
[OT–9,OT–9A,OT–9A–BC–E,OT–9B–BC–E,OT–9A–BC–F, or OT–9B–BC–F]

ON{Name recorded}
next_state [S2300 – Connect Party Setup]

ON{No speech response (NAME_RECORD_WAIT_TIME) within 4.0 seconds}
IF {NAME_NO_RESPONSE limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S22A0 – Retry attained]
Otherwise
next_state [S2240 – Reprompt for name on no response]

ON{Speech too soon}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S2300 – Connect Party Setup]
Otherwise
next_state [S2250 – Reprompt after speech too soon]

ON{Speech longer than (NAME_RECORD_DURATION) 2.5 seconds}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S2300 – Connect Party Setup]
Otherwise
next_state [S2270 – Reprompt after speech too long]

ON{Other error}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S22A0 – Retry attained]
Otherwise
next_state [S2290 – Reprompt after other error]

Call flow for collect calls (continued)

S22A0 – [Retry attained]

IF {Handoff Call}
next_state [S22A1 – Retry Attained – Handoff Collect]

Otherwise
IF {Prison call with
(USER INTERACTION Prison_No_Operator = YES) OR
(screening code match for Prison_No_Oper)}

"Please hang up and try your call again."
[OT–14, OT–14A–BC–E, or OT–14A–BC–F]

Abort the call.
Release TABS resources.

"Your response could not be understood. For operator assistance, press zero."
[OT–23,OT–23A–BC–E, OT–23B–BC–E,OT–23C–BC–E, or OT–23A–BC–F]

ON {Subscriber enters "0"}
next_state [S6000 – Route to Operator]

ON {Subscriber does not respond (REQ_OP_ON_ERR) within 3.0 seconds}

"Please hang up and try your call again."
[OT–14, OT–14A–BC–E, or OT–14A–BC–F]

Abort the call.
Release TABS resources.

ON {Subscriber went on hook}
Abort the call.
Release TABS resources.

Call flow for collect calls (continued)

S22A1 – [Retry attained – Handoff Collect]

"Your response could not be understood.
For operator assistance, please remain on the line."
[OT–39, OT–39A–BC–E, or OT–39A–BC–F]

ON{Hookflash}
next_state [S6000 – Route to Operator]

ON{Subscriber enters "0"}
next_state [S6000 – Route to Operator]

ON{Subscriber does not respond (REQ_OP_ON_ERR)
within 3.0 seconds}
next_state [S6000 – Route to Operator]

ON{Subscriber went on hook}
Abort the call.
Release TABS resources.

Call flow for collect calls (continued)

S2300 – [Connect Party Setup]

SETUP {for connecting party}
next_state [S2300.0 – Check for NPL Path]

S2300.0– [Check for NPL Path]

IF {Name Plus Locality Path}
    next_state [S2304.3 – Continue with NPL Processing]
Otherwise
    next_state [S2301 – Sucessful Name Recording]

S2301 – [Successful Name Recording]

IF {Notify caller (SUCCESS_REC_NAME = YES)}

```
"Thank you."
[OT-46A-BC-E or OT-46A-BC-F]
```

next_state [S2302 – Separate Out Operator Handoff]

Otherwise
    next_state [S2302 – Separate Out Operator Handoff]

S2302 – [Separate Out Operator Handoff before Back End Language Check]

IF {Operator Handoff call}
    next_state [S2303 – Separate Locality from NameRec]

Otherwise (Back End Language Check)
    IF {Single Language system}
        IF {Language entered ("17" or "19")}
            IF {Ignore Lang after SS (LANG_AFTER_SS=Ignore)}
                next_state [S2303 – Separate Locality from NameRec]
            IF {Route to Operator if Language after SS (LANG_AFTER_SS=OPERATOR)}
                next_state [S6000 – Route to Operator]
            IF {Notify caller if Language after SS (LANG_AFTER_SS=MSG)}

```
"Language selection is not
 available in this area. The
 call will continue in
 English."
[OT-45A-BC-E or OT-45A-BC-F]
```

OR

Call flow for collect calls (continued)

S2302 (cont'd)

```
                                    "The number as entered is
                                     incorrect."
                                    [SS-8.SS-8A-BC-E. SS-8B-BC-E,
                                     SS-8C-BC-E, or SS-8A-BC-F]
                                    (OT45 is datafilled with SS-8)

                                    next_state [S2303 – Separate Locality
                                          from NameRec]
            Otherwise
                  IF      {Back End Language Not Defined}
                          CALL [S5100 – Back End Lang  Selection (Collect)]
                          next_state [S2303 – Separate Locality from
                                NameRec]
                  Otherwise
                          next_state [S2303 – Separate Locality from
                                NameRec]
```

S2303 – [Collect flow complete for AudioGram calls]

Determine if call is an AudioGram call

IF {AudioGram has been selected}
Set back end language to MDS AudioGram language
Set OSS Action to Database AutoAccept
next_state [SB600]

Otherwise
next_state [S2303.0 – Do Name plus Locality processing]

S2303.0– [Separate Locality from NameRec]

IF {Non–Locality Call}
next_state [S2305 – Check Connection Method]
IF {Locality Database Failure}
next_state[S2304 – Determine which NPL Mode Applies]
Otherwise {Locality Prompt exists for DN in requested language}
next_state[S2305 – Check Connection Method]

Call flow for collect calls (continued)

S2304 – [Determine which NPL Mode Applies]

IF {Name Plus Locality Mode}
  IF {CDB_NPL_MODE = LOC_FIRST OR CDB_NPL_MODE = NAME_FIRST}
    next_state[S2209 – Do Name Recording]
  Otherwise
    next_state[S2305 – Check Connection Method]
Otherwise
    next_state[S2130 – Send to Non–Locality Path]

S2305 – [Check for MDS availability or Connection Method]

IF {MDS is available (VSN or DMS OOPS)}
  next_state [S2600 – MDS offer of service, Collect Call]
Otherwise
  {Check Connection Method}
  IF {Calling party allowed to listen in during billing acceptance (CALLING_LISTEN_IN_ACCEPT = YES)}
    next_state [S2306 – Zero Way connect by screening codes]
  Otherwise
    next_state [S2320 – Connect billed party (zero way)]

S2306 – [Zero way connection based on screening codes]

IF {Enh_Screen_Code match for Calling_No_Listen or BillAnnc_CallNoLis}
  next_state [S2315 – Prison "Call Recorded" announcement checks
Otherwise
  next_state [S2310 – Connect billed party (one–way)]

S2310 – [Connect billed party (one way)]

"Please wait to see if the charges for this call will be accepted."
[OT–7,OT–7A–BC–E,OT–7A–BC–F, or OT–7B–BC–F]

Connect billed party.

ON{Connect succeeded}
  next_state [S2330 – Wait for off–hook msg]

ON{Treatment}
  WAIT {(TREATMENT_CUT_OFF_TIME) 50.0 seconds}
  next_state [S2350 – Release billed and abort call]

ON{Connect failed}
  next_state [S2350 – Release billed and abort call]

Call flow for collect calls (continued)

S2315 – [Play Prison "Call Recorded" Announcement (zero way)]

IF {Enh_Screen_Code matches either BillAccept_Annc or BillAnnc_CallNoLis}

"This call may be recorded or monitored."
[OT–62A, OT–62B, OT–62C, OT–62A–BC–E, OT–62B–BC–E, OT–62C–BC–E, or OT–62A–BC–F, OT–62A–BC–F, OT–62A–BC–F]

next_state [S2320 – Connect billed party (zero way)]

S2320 – [Connect billed party (zero way)]

"You will be put on hold when the other party answers. Please wait to see if the charges for this call will be accepted."
[OT–21,OT–21A–BC–E,OT–21B–BC–E, OT–21A–BC–F, or OT–21B–BC–F]

Connect billed party.

ON{Connect succeeded}
next_state [S2330 – Wait for off–hook msg]

ON{Treatment}
WAIT {(TREATMENT_CUT_OFF_TIME) 50.0 seconds}
next_state [S2350 – Release billed and abort call]

ON{Connect failed}
next_state [S2350 – Release billed and abort call]

S2330 – [Wait for off–hook msg]

WAIT {for billed party to go off–hook}

ON{billed party goes off–hook}
next_state [S2370 – Alter connection]

ON{Billed party does not go off–hook (NO_FAR_END_ANS_CUT_OFF) within 50.0 seconds}
next_state [S2350 – Release billed and abort call]

Call flow for collect calls (continued)

S2350 – [Release billed and abort call]

Release billed party.

"Your call could not be completed. Please hang up and try your call later."
[OT–5,OT–5A–BC–E, or OT–5A–BC–F]

Abort the call.
Release TABS resources.

S2370 – [Alter connection]

IF {Calling party allowed to listen (CALLING_LISTEN_IN_ACCEPT = YES)}

IF {Enh_Screen_Code match for Calling_No_Listen or BillAnnc_CallNoLis}
Alter calling party connection zero way

Otherwise
Alter calling party connection one way

Otherwise
Alter calling party connection zero way

ON{Success}
next_state [S2410 – Detect end of "Hello"]

ON{Failure}
next_state [S2350 – Release billed and abort call]

S2410 – [Detect end of "Hello"]

ON{Billed party went on hook}
Release billed party.
Enable listen path.

"The other party hung up before being asked to accept the charges. Please hang up and try your call again."
[OT–15,OT–15A–BC–E, or OT–15A–BC–F]

Abort the call.
Release TABS resources.

Call flow for collect calls (continued)

S2410 (cont'd)

ON{End of speech,
OR
No speech (GREETING_TIMEOUT) within 0.5 seconds,
OR
Speech longer than (GREETING_LENGTH) 1.5 seconds}
next_state [S241 – Check Locality (Collect)]

S2411 – [Check Locality (Collect)]

IF {This was a locality call}
next_state [S2416 – Check Billing Accept method (LO)]

Otherwise
next_state [S2415 – Check Billing Acceptance method]

S2415 – [Check Billing Acceptance method]

IF {BILLING_ACCEPTANCE_METHOD = DTMF}
next_state [S2430 – DTMF Billing Acceptance]

IF {BILLING_ACCEPTANCE_METHOD = BOTH}
next_state [S2421 – Both Billing Acceptance]

Otherwise
next_state [S2420 – Speech Billing Acceptance]

S2416 – [Check Billing Accept method (LO)]

IF {BILLING_ACCEPTANCE_METHOD = DTMF}
next_state [S2435 – DTMF Billing Acceptance (LO)]

IF {BILLING_ACCEPTANCE_METHOD = BOTH}
next_state [S2422 – Both Billing Acceptance (LO)]

Otherwise
next_state [S2425 – Speech Billing Acceptance (LO)]

S2420 – [Speech Billing Acceptance]

IF {Prison call AND RECORD_NAME_PRISON = YES,
OR
Non–prison call AND RECORD_NAME_NON_PRISON = YES}

IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Call flow for collect calls (continued)

S2420 (cont'd)

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E,[OT–OA–BC–F]

"You have a collect call from: (pre–recorded name)."
[CS–4,CS–4A,CS–4B,CS–4C,CS–4D,CS–4E,CS–4F,
CS–4A–BC–E, or CS–4A–BC–F]

IF {Enh_Screen_Code matches for BillAccept_Annc or BillAnnc_CallNoLis}

"This call may be recorded or monitored."
[OT–62A, OT–62B, OT–62C, OT–62A–BC–E,
OT–62B–BC–E, OT–62C–BC–E, or
OT–62A–BC–F, OT–62A–BC–F, OT–62B–BC–F,
OT–62C–BC–F]

"Please answer the following question YES or NO. Will you accept the charges?"
[OT–6,OT–6A,OT–6B,OT–6A–BC–E,OT–6B–BC–E,
OT–6C–BC–E,OT–6A–BC–F, or OT–6B–BC–F]

IF {Prison call AND RECORD_NAME_PRISON = NO}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E,or
OT–OA–BC–F]

You have a collect call.
[CS–6,CS–6A,CS–6B,CS–6C,CS–6D, CS–6A–BC–E,
CS–6B–BC–E,CS–6A–BC–F, or CS–6B–BC–F]

Call flow for collect calls (continued)

S2420 (cont'd)

IF {Enh_Screen_Code matches for BillAccept_Annc or BillAnnc_CallNoLis}

"This call may be recorded or monitored."
[OT–62A, OT–62B, OT–62C, OT–62A–BC–E, OT–62B–BC–E,OT–62C–BC–E, or OT–62A–BC–F,OT–62A–BC–F, OT–62B–BC–F, OT–62C–BC–F]

"Please answer the following question YES or NO. Will you accept the charges?"
[OT–6,OT–6A,OT–6B,OT–6A–BC–E, OT–6B–BC–E,OT–6C–BC–E,OT–6A–BC–F, or OT–6B–BC–F]

IF {Non–prison call AND RECORD_NAME_NON_PRISON = NO}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E, or OT–OA–BC–F]

"You have a collect call."
[CS–5,CS–5A,CS–5A–BC–E, or CS–5A–BC–F]
"Please answer the following question YES or NO. Will you accept the charges?"
[OT–6,OT–6A,OT–6B,OT–6A–BC–E, OT–6B–BC–E, OT–6C–BC–E,OT–6A–BC–F, or OT–6B–BC–F]

ON {Calling party went on hook}
Release the calling party.

"(On–hook click) The person calling you has hung up. You will not be charged for this call. Please hang up now."
[CS–3,CS–3A–BC–E,CS–3B–BC–E, or CS–3A–BC–F]

Abort the call.
Release TABS resources.

ON {Other speech or DTMF response, billed party went on hook}
next_state [S2450 – Speech Response]

Call flow for collect calls (continued)

S2421 – [Both Billing Acceptance]

IF {Prison call AND RECORD_NAME_PRISON = YES,
OR
Non–prison call AND RECORD_NAME_NON_PRISON = YES}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E,[OT–OA–BC–F]

"You have a collect call from: (pre–recorded name)."
[CS–4,CS–4A, CS–4B,CS–4C,CS–4D,CS–4E,CS–4F, CS–4A–BC–E, or CS–4A–BC–F]

IF {Enh_Screen_Code matches for BillAccept_Annc or BillAnnc_CallNoLis}

"This call may be recorded or monitored."
[OT–62A, OT–62B, OT–62C, OT–62A–BC–E, OT–62B–BC–E,OT–62C–BC–E, or OT–62A–BC–F, OT–62A–BC–F, OT–62B–BC–F, OT–62C–BC–F]

IF {Play_Press2_Or_SayNo = YES}

"You may press ONE now to accept the charges, press TWO to refuse the charges, or answer the following question with only YES or NO. Will you accept the charges?"

[OT–61, OT–61A–BC–E, OT–61A–BC–F]

Otherwise

"Please answer the following question YES or NO.Will you accept the charges?"
[OT–6,OT–6A,OT–6B, OT–6A–BC–E, OT–6B–BC–E,OT–6C–BC–E,OT–6A–BC–F, or OT–6B–BC–F]

IF {Prison call AND RECORD_NAME_PRISON = NO}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Call flow for collect calls (continued)

S2421 (cont'd)

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E,
or OT–OA–BC–F]

"You have a collect call."
[CS–6,CS–6A,CS–6B,CS–6C,CS–6D, CS–6A–BC–E,
CS–6B–BC–E,CS–6A–BC–F, or CS–6B–BC–F]

IF {Enh_Screen_Code matches for BillAccept_Annc or BillAnnc_CallNoLis}

"This call may be recorded or monitored."
[OT–62A, OT–62B, OT–62C, OT–62A–BC–E,
OT–62B–BC–E,OT–62C–BC–E,
or OT–62A–BC–F, OT–62A–BC–F,
OT–62B–BC–F, OT–62C–BC–F]

IF {Play_Press2_Or_SayNo = YES}

"You may press ONE now to accept the
charges, press TWO to refuse the
charges, or answer the following
question with only YES or NO.
Will you accept the charges?"
[OT–61, OT–61A–BC–E, OT–61A–BC–F]

Otherwise

"Please answer the following question YES
or NO.Will you accept the charges?"
[OT–6,OT–6A,OT–6B,OT–6A–BC–E, OT–6B–BC–E,
OT–6C–BC–E,OT–6A–BC–F,or OT–6B–BC–F]

IF {Non–prison call AND RECORD_NAME_NON_PRISON = NO}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Call flow for collect calls (continued)

S2421 (cont'd)

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E,
or OT–OA–BC–F]

"You have a collect call."
[CS–5,CS–5A,CS–5A–BC–E, or CS–5A–BC–F]

IF {Play_Press2_Or_SayNo = YES}

"You may press ONE now to accept the
charges, press TWO to refuse the
charges, or answer the following
question with only YES or NO.
Will you accept the charges?"
[OT–61,OT–61A–BC–E, OT–61A–BC–F]

Otherwise

"Please answer the following question YES
or NO.Will you accept the charges?"
[OT–6,OT–6A,OT–6B,OT–6A–BC–E,OT–6B–BC–E,
OT–6C–BC–E,OT–6A–BC–F, or OT–6B–BC–F]

ON{Calling party went on hook}
Release the calling party.

"(On–hook click) The person calling you has
hung up. You will not be charged for this
call. Please hang up now."
[CS–3,CS–3A–BC–E,CS–3B–BC–E, or CS–3A–BC–F]

Abort the call.
Release TABS resources.

ON{Other speech or DTMF response, billed party went on hook}
next_state [S2450 – Speech Response]

Call flow for collect calls (continued)

S2422 – [Both Billing Acceptance (LO)]

IF {Locality prompt available for DN}
IF {CDB_NPL_MODE = LOC_FIRST}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E, or OT–OA–BC–F]

"You have a collect call from: (calling locality) from (Prerecorded name)."
[CS–18A–BC–E or CS–18A–BC–F]

IF {(Enh_Screen_Code matches for BillAccept_Annc or BillAnnc_CallNoLis) and (Prison call)}

"This call may be recorded or monitored."
[OT–62A, OT–62B, OT–62C, OT–62A–BC–E, OT–62B–BC–E, OT–62C–BC–E, or OT–62A–BC–F, OT–62A–BC–F, OT–62B–BC–F, OT–62C–BC–F]

IF {Play_Press2_Or_SayNo = YES}

"You may press ONE now to accept the charges, press TWO to refuse the charges, or answer the following question with only YES or NO. Will you accept the charges?"
[OT–61, OT–61A–BC–E, OT–61A–BC–F]

Otherwise

"Please answer the following question YES or NO.Will you accept the charges?"
[OT–6,OT–6A,OT–6B,OT–6A–BC–E,OT–6B–BC–E, OT–6C–BC–E,OT–6A–BC–F, or OT–6B–BC–F]

IF {CDB_NPL_MODE = NAME_FIRST}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Call flow for collect calls (continued)

S2422 (cont'd)

Otherwise

"This is (telco brand name)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E,
or OT–OA–BC–F]

"You have a collect call from
(Prerecorded name) at/from/of (calling
locality)."
[CS–4,CS–4A,CS–4B,CS–4C,CS–4D,
CS–4E,CS–4F,CS–4A–BC–E, or CS–4A–BC–F]

IF {(Enh_Screen_Code matches for BillAccept_Annc or BillAnnc_CallNoLis) and (Prison call)}

"This call may be recorded or monitored."
[OT–62A, OT–62B, OT–62C, OT–62A–BC–E,
OT–62B–BC–E,OT–62C–BC–E,
or OT–62A–BC–F, OT–62A–BC–F,OT–62B–BC–F,
OT–62C–BC–F]

IF {Play_Press2_Or_SayNo = YES}

"You may press ONE now to accept the
charges, press TWO to refuse the
charges, or answer the following
question with only YES or NO.
Will you accept the charges?"
[OT–61, OT–61A–BC–E, OT–61A–BC–F]

Otherwise

"Please answer the following question YES
or NO. Will you accept the charges?"
[OT–6,OT–6A,OT–6B, OT–6A–BC–E,
OT–6B–BC–E,OT–6C–BC–E,OT–6A–BC–F,
or OT–6B–BC–F]

IF {CDB_NPL_MODE = LOC_ONLY}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt
[OT0_CB]

Call flow for collect calls (continued)

S2422 (cont'd)

Otherwise

"This is (telco brand name)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E,
or OT–OA–BC–F]

"You have a collect call from: (calling locality)."
[CS–18A–BC–E or CS–18A–BC–F]

IF {(Enh_Screen_Code matches for BillAccept_Annc or BillAnnc_CallNoLis) and (Prison call)}

"This call may be recorded or monitored."
[OT–62A, OT–62B, OT–62C, OT–62A–BC–E,
OT–62B–BC–E, OT–62C–BC–E, or
OT–62A–BC–F,OT–62A–BC–F, OT–62B–BC–F,
OT–62C–BC–F]

"Please answer the following question YES or NO. Will you accept the charges?"
[OT–6,OT–6A,OT–6B,OT–6A–BC–E, OT–6B–BC–E,
OT–6C–BC–E,OT–6A–BC–F, or OT–6B–BC–F]

Otherwise {No Locality Prompt}

IF {call originated from prison (screening code in table SCREENING_CODES with PRISON)}
next_state [S2426 – <Prison – No Locality Prompt Avail]

Otherwise
next_state [S2427 – <Non–Prison – No Locality Prompt Avail]

Call flow for collect calls (continued)

S2422 (cont'd)

ON{Calling party went on hook}
Release the calling party.

"(On–hook click) The person calling you has hung up.

You will not be charged for this call. Please hang up now."
[CS–3,CS–3A–BC–E,CS–3B–BC–E, or CS–A–BC–F]

Abort the call.
Release TABS resources.

ON{Other speech or DTMF response, billed party went on hook}
next_state [S2450 – Analyze Speech Response]

S2425 – [Speech Billing Acceptance (LO)]

IF {Locality prompt available for DN}
IF {CDB_NPL_MODE = LOC_FIRST}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E, or OT–OA–BC–F]

"You have a collect call from: (calling locality) from (Prerecorded name)."
[CS–18A–BC–E or CS–18A–BC–F]

IF {(Enh_Screen_Code matches for BillAccept_Annc or BillAnnc_CallNoLis) and (Prison call)}

"This call may be recorded or monitored."
[OT–62A, OT–62B, OT–62C, OT–62A–BC–E, OT–62B–BC–E, OT–62C–BC–E,or OT–62A–BC–F, OT–62A–BC–F, OT–62B–BC–F, OT–62C–BC–F]

"Please answer the following question YES or NO. Will you accept the charges?"
[OT–6,OT–6A,OT–6B,OT–6A–BC–E, OT–6B–BC–E, OT–6C–BC–E,OT–6A–BC–F, or OT–6B–BC–F]

Call flow for collect calls (continued)

S2425 (cont'd)

IF {CDB_NPL_MODE = NAME_FIRST}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt
[OT0_CB]

Otherwise

"This is (telco brand name)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E,
or OT–OA–BC–F]

"You have a collect call from
(Prerecorded name) at/from/of (calling
locality)."
[CS–4,CS–4A,CS–4B,CS–4C,CS–4D,
CS–4E,CS–4F,CS–4A–BC–E, or CS–4A–BC–F]

IF {(Enh_Screen_Code matches for BillAccept_Annc or
BillAnnc_CallNoLis) and (Prison call)}

"This call may be recorded or monitored."
[OT–62A, OT–62B, OT–62C, OT–62A–BC–E,
OT–62B–BC–E, OT–62C–BC–E, or
OT–62A–BC–F, OT–62A–BC–F, OT–62B–BC–F,
OT–62C–BC–F]

"Please answer the following question YES or
NO. Will you accept the charges?"
[OT–6,OT–6A,OT–6B,OT–6A–BC–E,
OT–6B–BC–E,OT–6C–BC–E,OT–6A–BC–F,
or OT–6B–BC–F]

IF {CDB_NPL_MODE = LOC_ONLY}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt
[OT0_CB]

Call flow for collect calls (continued)

S2425 (cont'd)

Otherwise

"This is (telco brand name)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E,
or OT–OA–BC–F]

"You have a collect call from: (calling locality)."
[CS–18A–BC–E or CS–18A–BC–F]

IF {(Enh_Screen_Code matches for BillAccept_Annc or BillAnnc_CallNoLis) and (Prison call)}

"This call may be recorded or monitored."
[OT–62A, OT–62B, OT–62C, OT–62A–BC–E,
OT–62B–BC–E,OT–62C–BC–E, or
OT–62A–BC–F, OT–62A–BC–F,OT–62B–BC–F,
OT–62C–BC–F]

"Please answer the following question YES or NO. Will you accept the charges?"
[OT–6,OT–6A,OT–6B,OT–6A–BC–E, OT–6B–BC–E,
OT–6C–BC–E,OT–6A–BC–F, or OT–6B–BC–F]

Otherwise {No Locality Prompt}

IF {call originated from prison (screening code in table SCREENING_CODES with PRISON or PRISON_NO_OPER)}
next_state [S2426 – <Prison – No Locality Prompt Avail]

Otherwise
next_state [S2427 – <Non–Prison – No Locality Prompt Avail]

Call flow for collect calls (continued)

S2425 (cont'd)

ON{Calling party went on hook}
Release the calling party.

"(On–hook click) The person calling you has hung up. You will not be charged for this call. Please hang up now."
[CS–3,CS–3A–BC–E,CS–3B–BC–E, or CS–A–BC–F]

Abort the call.
Release TABS resources.

ON{Other speech or DTMF response, billed party went on hook}
next_state [S2450 – Analyze Speech Response]

S2426 – [Prison – No Locality Prompt Avail]

IF {Play the default prompt for Prison
(LOC_DEFAULT_PROMPT = ALL or PRISON)}
IF {CDB_NPL_MODE = LOC_FIRST OR CDB_NPL_MODE = NAME_FIRST}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt
[OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E,
or OT–OA–BC–F]

"You have a collect call (Prerecorded Name)."
[CS–6,CS–6A,CS–6B,CS–6C,CS–6D,CS–6A–BC–E,
CS–6B–BC–E,CS–6A–BC–F, or CS–6B–BC–F]

Call flow for collect calls (continued)

S2426 (cont'd)

IF {Enh_Screen_Code matches for BillAccept_Annc or BillAnnc_CallNoLis}
"This call may be recorded or monitored."

[OT–62A, OT–62B, OT–62C, OT–62A–BC–E, OT–62B–BC–E,OT–62C–BC–E, or OT–62A–BC–F, OT–62A–BC–F,OT–62B–BC–F, OT–62C–BC–F]

"Please answer the following question YES or NO. Will you accept the charges?"
[OT–6,OT–6A,OT–6B,OT–6A–BC–E, OT–6B–BC–E,OT–6C–BC–E,OT–6A–BC–F, or OT–6B–BC–F]

IF {CDB_NPL_MODE = LOC_ONLY}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E, or OT–OA–BC–F]

"You have a collect call."
[CS–6,CS–6ACS–6B,CS–6C,CS–6D, CS–6A–BC–E, CS–6B–BC–E,CS–6A–BC–F, or CS–6B–BC–F]

IF {(Enh_Screen_Code matches for BillAccept_Annc or BillAnnc_CallNoLis) and (Prison call)}

"This call may be recorded or monitored."

[OT–62A, OT–62B, OT–62C,OT–62A–BC–E, OT–62B–BC–E, OT–62C–BC–E, or OT–62A–BC–F, OT–62A–BC–F,OT–62B–BC–F, OT–62C–BC–F]

"Please answer the following question YES or NO. Will you accept the charges?"
[OT–6,OT–6A,OT–6B,OT–6A–BC–E, OT–6B–BC–E, OT–6C–BC–E,OT–6A–BC–F, or OT–6B–BC–F]

Call flow for collect calls (continued)

S2426 (cont'd)

Otherwise

IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt
[OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E,
or OT–OA–BC–F]

"You have a collect call."
[CS–6,CS–6A,CS–6B,CS–6C,CS–6D,
CS–6A–BC–E,CS–6B–BC–E,CS–6A–BC–F,
or CS–6B–BC–F]

IF {(Enh_Screen_Code matches for BillAccept_Annc or
BillAnnc_CallNoLis) and (Prison call)}

"This call may be recorded or
monitored."

[OT–62A, OT–62B, OT–62C, OT–62A–BC–E,
OT–62B–BC–E,OT–62C–BC–E, or
OT–62A–BC–F, OT–62A–BC–F, OT–62B–BC–F,
OT–62C–BC–F]

next_state [S6300 – Route to Operator –
No Locality Prompt Avail/Prison Call]

ON{Calling party went on hook}
Release the calling party.

"(On–hook click) The person calling you has
hung up. You will not be charged for this
call. Please hang up now."
[CS–3,CS–3A–BC–E,CS–3B–BC–E, or CS–3A–BC–F]

Abort the call.
Release TABS resources.

ON{Other speech or DTMF response, billed party went on hook}
next_state [S2450 – Analyze Speech Response]

Call flow for collect calls (continued)

S2427 – [Non–Prison – No Locality Prompt Avail]

IF {Play the default prompt for Non–prison call (LOC_DEFAULT_PROMPT = ALL or NONPRISON)}

IF {CDB_NPL_MODE = LOC_FIRST OR CDB_NPL_MODE = NAME_FIRST}

IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E, or OT–OA–BC–F]

"You have a collect call (Prerecorded Name)."
[CS–6,CS–6A,CS–6B,CS–6C,CS–6D,CS–6A–BC–E, CS–6B–BC–E,CS–6A–BC–F, or CS–6B–BC–F]

"Please answer the following question YES or NO. Will you accept the charges?"
[OT–6,OT–6A,OT–6B,OT–6A–BC–E,OT–6B–BC–E, OT–6C–BC–E,OT–6A–BC–F, or OT–6B–BC–F]

IF {CDB_NPL_MODE = LOC_ONLY}

IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E, or OT–OA–BC–F]

"You have a collect call."
[CS–6,CS–6A,CS–6B,CS–6C,CS–6D, CS–6A–BC–E,CS–6B–BC–E,CS–6A–BC–F, or CS–6B–BC–F]

"Please answer the following question YES or NO. Will you accept the charges?"
[OT–6,OT–6A,OT–6B,OT–6A–BC–E,OT–6B–BC–E, OT–6C–BC–E,OT–6A–BC–F, or OT–6B–BC–F]

Call flow for collect calls (continued)

S2427 (cont'd)

Otherwise
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E,or
OT–OA–BC–F]

"You have a collect call."
[CS–5,CS–5A,CS–5A–BC–E, or CS–5A–BC–F]

next_state [S6400 – Route to Operator – No Locality Prompt Avail/Non–Prison Call]

ON{Calling party went on hook}
Release the calling party.

"(On–hook click) The person calling you has hung up. You will not be charged for this call. Please hang up now."
[CS–3,CS–3A–BC–E,CS–3B–BC–E, or CS–3A–BC–F]

Abort the call.
Release TABS resources.

ON{Other speech or DTMF response, billed party went on hook}
next_state [S2450 – Analyze Speech Response]

S2430 – [DTMF Billing Acceptance]

IF {Prison call AND RECORD_NAME_PRISON = YES,
OR
Non–prison call AND RECORD_NAME_NON_PRISON = YES}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E,
or OT–OA–BC–F]

"You have a collect call from: (pre–recorded name)."
[CS–4, CS–4A–BC–E, or CS–4A–BC–F]

Call flow for collect calls (continued)

S2430 (cont'd)

IF {Enh_Screen_Code matches for BillAccept_Annc or BillAnnc_CallNoLis}

"This call may be recorded or monitored."
[OT–62A, OT–62B, OT–62C, OT–62A–BC–E, OT–62B–BC–E,OT–62C–BC–E, or OT–62A–BC–F, OT–62A–BC–F, OT–62B–BC–F, OT–62C–BC–F]

IF {Play_Press2_Or_SayNo = YES}

"If you will pay for the call, press ONE now. To refuse the charges, please press TWO."
[OT–50, OT–50A–BC–E, OT–50A–BC–F]

Otherwise

"If you will accept the charges, press one now. To refuse the charges, please hang up."
[OT–42,OT–42A–BC–E, OT–42B–BC–E, or OT–42A–BC–F]

IF {Prison call AND RECORD_NAME_PRISON = NO}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E, or OT–OA–BC–F]

"You have a collect call."
[CS–6,CS–6A,CS–6B,CS–6C,CS–6D, CS–6A–BC–E, CS–6B–BC–E,CS–6A–BC–F,CS–6B–BC–F]

IF {Enh_Screen_Code matches for BillAccept_Annc or BillAnnc_CallNoLis}

"This call may be recorded or monitored."
[OT–62A, OT–62B, OT–62C, OT–62A–BC–E, OT–62B–BC–E,OT–62C–BC–E, or OT–62A–BC–F, OT–62A–BC–F,OT–62B–BC–F, OT–62C–BC–F]

Call flow for collect calls (continued)

S2430 (cont'd)

IF {Play_Press2_Or_SayNo = YES}

"If you will pay for the call, press ONE now. To refuse the charges, please press TWO."
[OT–50,OT–50A–BC–E, OT–50A–BC–F]

Otherwise

"If you will accept the charges, press one now. To refuse the charges, please hang up."
[OT–42,OT–42A–BC–E, OT–42B–BC–E, or OT–42A–BC–F]

IF {Non–prison call AND RECORD_NAME_NON_PRISON = NO}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E, or OT–OA–BC–F]

"You have a collect call."
[CS–5,CS–5A,CS–5A–BC–E, or CS–5A–BC–F]

IF {Play_Press2_Or_SayNo = YES}

"If you will pay for the call, press ONE now. To refuse the charges, please press TWO."
[OT–50, OT–50A–BC–E, OT–50A–BC–F]

Otherwise

"If you will accept the charges, press one now. To refuse the charges, please hang up."
[OT–42,OT–42A–BC–E, OT–42B–BC–E, or OT–42A–BC–F]

Call flow for collect calls (continued)

S2430 (cont'd)

ON{Calling party went on hook}
Release the calling party.

```
"(On-hook click) The person calling you has
 hung up. You will not be charged for this
 call. Please hang up now."
[CS-3,CS-3A-BC-E,CS-3B-BC-E, or CS-3A-BC-F]
```

Abort the call.
Release TABS resources.

ON{Other speech or DTMF response, billed party went on hook}
next_state [S2440 – Analyze DTMF Response]

S2435 – [DTMF Billing Acceptance (LO)]

IF {Locality prompt available for DN}
IF {CDB_NPL_MODE = LOC_FIRST}
IF {custom branding Billed Welcome prompt available}

```
Play  Billed Welcome Custom Brand
 prompt [OT0_CB]
```

Otherwise

```
"This is (telco brand name2).
[OT-0,OT-OA-BC-E,OT-OB-BC-E,
 or OT-OA-BC-F]

"You have a collect call from: (calling
 locality) from (Prerecorded name)"
[CS-18A-BC-E or CS-18A-BC-F]
```

IF {(Enh_Screen_Code matches for BillAccept_Annc or BillAnnc_CallNoLis) and (Prison call)}

```
"This call may be recorded or monitored."
[OT-62A, OT-62B,  OT-62C,  OT-62A-BC-E,
 OT-62B-BC-E,OT-62C-BC-E, or OT-62A-BC-F,
 OT-62A-BC-F, OT-62B-BC-F, OT-62C-BC-F]
```

IF {Play_Press2_Or_SayNo = YES}

```
"If you will pay for the call, press ONE
 now.  To refuse the charges, please
 press TWO."
 [OT-50, OT-50A-BC-E, OT-50A-BC-F]
```

Call flow for collect calls (continued)

S2435 (cont'd)

Otherwise

"If you will accept the charges, press one now. To refuse the charges, please hang up."
[OT–42,OT–42A–BC–E, OT–42B–BC–E, or OT–42A–BC–F]

IF {CDB_NPL_MODE = NAME_FIRST}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2).
[OT–0,OT–OA–BC–E,OT–OB–BC–E, or OT–OA–BC–F]

"You have a collect call from (Prerecorded name) at/from/of (calling locality)."
[CS–4,CS–4A,CS–4B,CS–4C,CS–4D,CS–4E, CS–4F,CS–4A–BC–E, or CS–4A–BC–F]

IF {(Enh_Screen_Code matches for BillAccept_Annc or BillAnnc_CallNoLis) and (Prison call)}

"This call may be recorded or monitored."
[OT–62A, OT–62B, OT–62C, OT–62A–BC–E, OT–62B–BC–E, OT–62C–BC–E, or OT–62A–BC–F, OT–62A–BC–F, OT–62B–BC–F, OT–62C–BC–F]

IF {Play_Press2_Or_SayNo = YES}

"If you will pay for the call, press ONE now. To refuse the charges, please press TWO."
[OT–50, OT–50A–BC–E, OT–50A–BC–F]

Call flow for collect calls (continued)

S2435 (cont'd)

Otherwise

"If you will accept the charges, press one now. To refuse the charges, please hang up."
[OT–42,OT–42A–BC–E, OT–42B–BC–E, or OT–42A–BC–F]

IF {CDB_NPL_MODE = LOC_ONLY}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)
[OT–0,OT–OA–BC–E,OT–OB–BC–E, or OT–OA–BC–F]

"You have a collect call from: (calling locality)."
[CS–18A–BC–E or CS–18A–BC–F]

IF {(Enh_Screen_Code matches for BillAccept_Annc or BillAnnc_CallNoLis) and (Prison call)}

"This call may be recorded or monitored."
[OT–62A, OT–62B, OT–62C, OT–62A–BC–E, OT–62B–BC–E,OT–62C–BC–E, or OT–62A–BC–F, OT–62A–BC–F, OT–62B–BC–F, OT–62C–BC–F]

IF {Play_Press2_Or_SayNo = YES}

"If you will pay for the call, press ONE now. To refuse the charges, please press TWO."
[OT–50, OT–50A–BC–E, OT–50A–BC–F]

Otherwise

"If you will accept the charges, press one now. To refuse the charges, please hang up."
[OT–42,OT–42A–BC–E, OT–42B–BC–E, or OT–42A–BC–F]

Call flow for collect calls (continued)

S2435 (cont'd)

Otherwise {no locality prompt}
IF {call originated from prison (screening code in table SCREENING_CODES with PRISON or PRISON_NO_OPER)}
next_state [S2436 – Prison – No Locality Prompt Avail]
Otherwise
next_state [S2437 – Non–Prison – No Locality Prompt Avail]

ON{Calling party went on hook}
Release the calling party.

"(On–hook click) The person calling you has hung up. You will not be charged for this call.Please hang up now."
[CS–3,CS–3A–BC–E,CS–3B–BC–E, or CS–3A–BC–F]

Abort the call.
Release TABS resources.

ON{Other speech or DTMF response, billed party went on hook}
next_state [S2440 – Analyze DTMF Response]

S2436 – [Prison – No Locality Prompt Avail]

IF {Play the default prompt for Prison (LOC_DEFAULT_PROMPT = ALL or PRISON)}
IF {CDB_NPL_MODE = LOC_FIRST OR CDB_NPL_MODE = NAME_FIRST}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2).
[OT–0,OT–OA–BC–E,OT–OB–BC–E, or OT–OA–BC–F]

"You have a collect call (Prerecorded Name)."

Call flow for collect calls (continued)

S2436 (cont'd)

IF {Enh_Screen_Code matches for BillAccept_Annc or BillAnnc_CallNoLis}

"This call may be recorded or monitored."
[OT–62A, OT–62B, OT–62C, OT–62A–BC–E, OT–62B–BC–E, OT–62C–BC–E, or OT–62A–BC–F, OT–62A–BC–F, OT–62B–BC–F, OT–62C–BC–F]

IF {Play_Press2_Or_SayNo = YES}

"If you will pay for the call, press ONE now. To refuse the charges, please press TWO."
[OT–50, OT–50A–BC–E, OT–50A–BC–F]

Otherwise

"If you will accept the charges, press one now. To refuse the charges, please hang up."
[OT–42,OT–42A–BC–E, OT–42B–BC–E, or OT–42A–BC–F]

IF {CDB_NPL_MODE = LOC_ONLY}

IF {custom branding Billed Welcome prompt available}

Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E, or OT–OA–BC–F]

"You have a collect call."
[CS–6,CS–6A,CS–6B,CS–6C,CS–6D, CS–6A–BC–E, CS–6B–BC–E, CS–6A–BC–F, CS–6B–BC–F]

Call flow for collect calls (continued)

S2436 (cont'd)

IF {Enh_Screen_Code matches for BillAccept_Annc or BillAnnc_CallNoLis}

"This call may be recorded or monitored."
[OT–62A, OT–62B, OT–62C, OT–62A–BC–E, OT–62B–BC–E,OT–62C–BC–E, or OT–62A–BC–F, OT–62A–BC–F OT–62B–BC–F, OT–62C–BC–F]

IF {Play_Press2_Or_SayNo = YES}

"If you will pay for the call, press ONE now. To refuse the charges, please press TWO."
[OT–50, OT–50A–BC–E, OT–50A–BC–F]

Otherwise

"If you will accept the charges, press one now. To refuse the charges, please hang up."
[OT–42,OT–42A–BC–E, OT–42B–BC–E, or OT–42B–BC–F]

Otherwise

IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E, or OT–OA–BC–F]

"You have a collect call."
[CS–6,CS–6A,CS–6B,CS–6C,CS–6D, CS–6A–BC–E, CS–6B–BC–E,CS–6A–BC–F,CS–6B–BC–F]

IF {Enh_Screen_Code matches for BillAccept_Annc or BillAnnc_CallNoLis}

Call flow for collect calls (continued)

S2436 (cont'd)

"This call may be recorded or monitored."
[OT–62A, OT–62B, OT–62C, OT–62A–BC–E, OT–62B–BC–E, OT–62C–BC–E, or OT–62A–BC–F, OT–62A–BC–F,OT–62B–BC–F, OT–62C–BC–F]

next_state [S6300 – Route to Operator – No Locality Prompt Avail/Prison Call]

ON{Calling party went on hook}
Release the calling party.

"(On–hook click) The person calling you has hung up. You will not be charged for this call. Please hang up now."
[CS–3,CS–3A–BC–E,CS–3B–BC–E, or CS–3A–BC–F]

Abort the call.
Release TABS resources.

ON{Other speech or DTMF response, billed party went on hook}
next_state [S2440 – Analyze DTMF Response]

S2437 – [Non–Prison – No Locality Prompt Avail]

IF {Play the default prompt for Non–prison call (LOC_DEFAULT_PROMPT = ALL or NONPRISON)}
IF {CDB_NPL_MODE = LOC_FIRST OR CDB_NPL_MODE = NAME_FIRST}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E, or OT–OA–BC–F]

"You have a collect call (Prerecorded Name)."

Call flow for collect calls (continued)

S2437 (cont'd)

IF {Play_Press2_Or_SayNo = YES}

"If you will pay for the call, press ONE now. To refuse the charges, please press TWO."
[OT–50, OT–50A–BC–E, OT–50A–BC–F]

Otherwise

"If you will accept the charges, press one now. To refuse the charges, please hang up."
[OT–42,OT–42A–BC–E, OT–42B–BC–E, or OT–42A–BC–F]

IF {CDB_NPL_MODE = LOC_ONLY}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E, or OT–OA–BC–F]

"You have a collect call."
[CS–6,CS–6A,CS–6B,CS–6C,CS–6D,CS–6A–BC–E, CS–6B–BC–E,CS–6A–BC–F,CS–6B–BC–F]

IF {Play_Press2_Or_SayNo = YES}

"If you will pay for the call, press ONE now. To refuse the charges, please press TWO."
[OT–50, OT–50A–BC–E, OT–50A–BC–F]

Otherwise

"If you will accept the charges, press one now. To refuse the charges, please hang up."
[OT–42,OT–42A–BC–E, OT–42B–BC–E, orOT–42A–BC–F]

Call flow for collect calls (continued)

S2437 (cont'd)

Otherwise
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E,OT–OB–BC–E,
or OT–OA–BC–F]

"You have a collect call."
[CS–5,CS–5A,CS–5A–BC–E, or CS–5A–BC–F]

next_state [S6400 – Route to Operator – No Locality Prompt Avail/Non–Prison Call]

ON{Calling party went on hook}
Release the calling party.

"(On–hook click) The person calling you has hung up. You will not be charged for this call. Please hang up now."
[CS–3,CS–3A–BC–E,CS–3B–BC–E, or CS–3A–BC–F]

Abort the call.
Release TABS resources.

ON{Other speech or DTMF response, billed party went on hook}
next_state [S2440 – Analyze DTMF Response]

S2440 – [Analyze DTMF Response]

IF {Billed party does not respond (BILL_ACC_TIMEOUT) within 4.0 seconds}
IF {BILLING_NO_RESPONSE limit (1) attained,
OR
BILLING_TOTAL_RETRY limit (1) attained}
IF {PLAY_BILLED_ONHOOK=NO}
IF {Enh_Screen_Code matches Prison_No_Oper}

"Your call could not be completed.. Please hang up and try your call later."
[OT–5,OT–5A–BC–E, OT–5A–BC–F]

next_state [S7000–Route to Operator (blocked)]

Call flow for collect calls (continued)

S2440 (cont'd)

"If you want to refuse the charges, hang up now. For operator assistance, please remain on the line."
[OT–28,OT–28A–BC–E,OT–28A–BC–F, or OT–28B–BC–F]

next_state [S7000 – Route to Operator]

Otherwise
IF {Enh_Screen_Code matches Prison_No_Oper}

"Your call could not be completed. Please hang up and try your call later."
[OT–5,OT–5A–BC–E, OT–5A–BC–F]

next_state [S7000–Route to Operator (blocked)]

"For operator assistance, please stay on the line."
[OT–18, OT–18A–BC–E, OT–18A–BC–F]

Otherwise
next_state [S2443 – Locality: Analyze DTMF No Resp]

ON{Billed party entered "1"}
Enable listen path.
IF {custom branding Thank You prompt available}
Play Thank You Custom Brand prompt [CS1_CB]

Otherwise

"Thank you. Please go ahead."
[CS–1 or CS–1A–BC–E]

Complete the call.
Release TABS resources.

ON{Billed party entered "0"}
next_state [S7000.0 – Back end manual routing]

ON{Billed party went on hook (hung up)}
next_state [S24B2 – Release billed party]

Call flow for collect calls (continued)

S2440 (cont'd)

ON{Billed party entered invalid DTMF}
IF {BILLING_REJECT_ERR limit (1) attained,
OR
BILLING_TOTAL_RETRY limit (1) attained}
IF {PLAY_BILLED_ONHOOK=NO}
IF {Enh_Screen_Code matches Prison_No_Oper}

"Your call could not be completed.. Please hang up and try your call later."
[OT–5,OT–5A–BC–E, OT–5A–BC–F]

next_state [S7000–Route to Operator (blocked)]

"Your response was not valid.To refuse the charges,hang up now. For operator assistance, please remain on the line."
[OT–53,OT–53A–BC–E,OT–53A–BC–F, or OT–53B–BC–F]

next_state [S7000 – Route to Operator]

Otherwise
IF {Enh_Screen_Code matches Prison_No_Oper}

"Your call could not be completed.. Please hang up and try your call later."
[OT–5,OT–5A–BC–E, OT–5A–BC–F]

next_state [S7000–Route to Operator (blocked)]

"Your response is not valid. To refuse the charges, hang up now. For operator assistance, please remain on the line."
[OT–44,OT–44A,OT–44A–BC–E, OT–44B–BC–E, or OT–44A–BC–F]

next_state [S7000 – Route to Operator]

Otherwise
next_state [S2446 – <Locality: Analyze DTMF Error]

Call flow for collect calls (continued)

S2440 (cont'd)

ON{Other error}
IF {BILLING_TOTAL_RETRY limit (1) attained}
IF {PLAY_BILLED_ONHOOK=NO}
IF {Enh_Screen_Code matches Prison_No_Oper}

"Your call could not be completed. Please hang up and try your call later."
[OT–5,OT–5A–BC–E, OT–5A–BC–F]

next_state [S7000–Route to Operator (blocked)]

"If you want to refuse the charges, hang up now. For operator assistance, please remain on the line."
[OT–28,OT–28A–BC–E,OT–28A–BC–F, or OT–28B–BC–F]

next_state [S7000 – Route to Operator]

Otherwise
IF {Enh_Screen_Code matches Prison_No_Oper}

"Your call could not be completed.. Please hang up and try your call later."
[OT–5,OT–5A–BC–E, OT–5A–BC–F]

next_state [S7000–Route to Operator (blocked)]

"For operator assistance, please stay on the line."
[OT–18, OT–18A–BC–E, OT–18A–BC–F]

Otherwise
next_state [S2446 – Locality: Analyze DTMF Error]

Call flow for collect calls (continued)

S2440 (cont'd)

ON{Calling party went on hook}
Release calling party.

```
"(On–hook click) The person calling you has
 hung up. You will not be charged for this
 call. Please hang up now."
[CS–3,CS–3A–BC–E,CS–3B–BC–E, or CS–3A–BC–F]
```

Abort the call.
Release TABS resources.

ON{DTMF response, calling party went on hook,
billed party went on hook}
next_state [S2440 – Analyze DTMF Response]

Call flow for collect calls (continued)

S2443 – [Locality: Analyze DTMF No Resp]

IF {This was a locality call}
next_state [S2465 – no DTMF response reprompt (LO)]

Otherwise
next_state [S2460 – no DTMF response reprompt]

S2446 – [Locality: Analyze DTMF Error]

IF {This was a locality call}
next_state [S2495 – DTMF error reprompt (LO)]

Otherwise
next_state [S2490 – DTMF error reprompt]

S2450 – [Analyze Speech Response]

IF {Billed party does not respond (BILL_ACC_TIMEOUT) within 4.0 seconds}
IF {BILLING_NO_RESPONSE limit (1) attained,
OR
BILLING_TOTAL_RETRY limit (1) attained}
IF {PLAY_BILLED_ONHOOK=NO}
IF {Enh_Screen_Code matches Prison_No_Oper}

"Your call could not be completed.. Please hang up and try your call later."
[OT–5,OT–5A–BC–E, OT–5A–BC–F]

next_state [S7000–Route to Operator (blocked)]

"If you want to refuse the charges, hang up now. For operator assistance, please remain on the line."
[OT–28,OT–28A–BC–E,OT–28A–BC–F, or OT–28B–BC–F]

next_state [S7000 – Route to Operator]

Call flow for collect calls (continued)

S2450 (cont'd)

Otherwise
IF {Enh_Screen_Code matches Prison_No_Oper}

"Your call could not be completed.. Please hang up and try your call later."
[OT–5,OT–5A–BC–E, OT–5A–BC–F]

next_state [S7000–Route to Operator (blocked)]

"For operator assistance, please stay on the line."
[OT–18, OT–18A–BC–E, OT–18A–BC–F]

next_state [S7000 – Route to Operator]

Otherwise
next_state [S2453 – <Locality: Analyze Speech No Resp]

IF {Billed party said "YES"}
Enable listen path.
IF {custom branding Thank You prompt available}
Play Thank You Custom Brand prompt [CS1_CB]

Otherwise

"Thank you. Please go ahead."
[CS–1 or CS–1A–BC–E]

Complete the call.
Release TABS resources.

IF {Billed party said "NO"}
next_state [S2464 – Verify refusal]

IF {Billed party entered "1",
AND
BILLING_ACCEPTANCE_METHOD = Both}
Enable listen path.
IF {custom branding Thank You prompt available}
Play Thank You Custom Brand prompt [CS1_CB]

Call flow for collect calls (continued)

S2450 (cont'd)

Otherwise

"Thank you. Please go ahead."
[CS–1 or CS–1A–BC–E]

Complete the call.
Release TABS resources.

IF {Billed party enters "0" and,
AND
BILLING_ACCEPTANCE_METHOD = Both}
next_state [S7000.0 – Back end manual routing]

IF {Speech is unrecognizable }
IF {BILLING_REJECT_ERR limit (1) attained,
OR
BILLING_TOTAL_RETRY limit (1) attained}
IF {PLAY_BILLED_ONHOOK=NO}
IF {Enh_Screen_Code matches Prison_No_Oper}

"Your call could not be completed.. Please hang up and try your call later."
[OT–5,OT–5A–BC–E OT–5A–BC–F]

next_state [S7000–Route to Operator (blocked)]

"Your response could not be understood. To refuse the charges, hang up now. For operator assistance, please remain on the line."
[OT–29,OT–29A–BC–E,OT–29A–BC–F, or OT–29B–BC–F]

next_state [S7000 – Route to Operator]

Call flow for collect calls (continued)

S2450 (cont'd)

Otherwise
IF {Enh_Screen_Code matches Prison_No_Oper}

"Your call could not be completed.. Please hang up and try your call later."
[OT–5,OT–5A–BC–E, OT–5A–BC–F]

next_state [S7000–Route to Operator (blocked)]

"Your response could not be understood. For operator assistance, please stay on the line"
[OT–52, OT–52A–BC–E, OT–52A–BC–F]

next_state [S7000 – Route to Operator]

Otherwise
next_state [S2456 – <Locality: Analyze Speech Error]

IF {Speech was too long}
IF {BILLING_TOTAL_RETRY limit (1) attained}
IF {PLAY_BILLED_ONHOOK=NO}
IF {Enh_Screen_Code matches Prison_No_Oper}

"Your call could not be completed.. Please hang up and try your call later."
[OT–5,OT–5A–BC–E, OT–5A–BC–F]

next_state [S7000–Route to Operator (blocked)]

"Your response could not be understood. To refuse the charges, hang up now. For operator assistance, please remain on the line."
[OT–29,OT–29A–BC–E,OT–29A–BC–F, or OT–29B–BC–F]

next_state [S7000 – Route to Operator]

Call flow for collect calls (continued)

S2450 (cont'd)

Otherwise
IF {Enh_Screen_Code matches Prison_No_Oper}

"Your call could not be completed.. Please hang up and try your call later."
[OT–5,OT–5A–BC–E, OT–5A–BC–F]

next_state [S7000–Route to Operator (blocked)]

"Your response could not be understood. For operator assistance, please stay on the line"
[OT–52, OT–52A–BC–E, OT–52A–BC–F]

next_state [S7000 – Route to Operator]

Otherwise
next_state [S2456 – <Locality: Analyze Speech Error]

IF {Speech came too soon}
IF {BILLING_TOTAL_RETRY limit (1) attained}
IF {Enh_Screen_Code matches Prison_No_Oper}

"Your call could not be completed. Please hang up and try your call later."
[OT–5,OT–5A–BC–E, OT–5A–BC–F]

next_state [S7000–Route to Operator (blocked)]

"Your response could not be understood. To refuse the charges, hang up now. For operator assistance, please remain on the line."
[OT–29,OT–29A–BC–E,OT–29A–BC–F, or OT–29B–BC–F]

next_state [S7000 – Route to Operator]

Otherwise
next_state [S2458 – <Locality: Analyze Speech Error]

Call flow for collect calls (continued)

S2450 (cont'd)

IF {Other error}
IF {BILLING_TOTAL_RETRY limit (1) attained}
IF {PLAY_BILLED_ONHOOK=NO}
IF {Enh_Screen_Code matches Prison_No_Oper}

"Your call could not be completed. Please hang up and try your call later."
[OT–5,OT–5A–BC–E, OT–5A–BC–F]

next_state [S7000–Route to Operator (blocked)]

"Your response could not be understood. To refuse the charges, hang up now. For operator assistance, please remain on the line."
[OT–29,OT–29A–BC–E,OT–29A–BC–F, or OT–29B–BC–F]

next_state [S7000 – Route to Operator]

Otherwise
IF {Enh_Screen_Code matches Prison_No_Oper}

"Your call could not be completed.. Please hang up and try your call later."
[OT–5,OT–5A–BC–E, OT–5A–BC–F]

next_state [S7000–Route to Operator (blocked)]

"Your response could not be understood. For operator assistance, please stay on the line"
[OT–52, OT–52A–BC–E, OT–52A–BC–F]

next_state [S7000 – Route to Operator]

Call flow for collect calls (continued)

S2450 (cont'd)

Otherwise
next_state [S2453 – Locality: Analyze Speech Error]

IF {Billed party went on hook}
next_state [S24B2 – Release billed party]

IF {Calling party went on hook}
Release calling party.

"(On–hook click) The person calling you has hung up. You will not be charged for this call. Please hang up now."
[CS–3,CS–3A–BC–E,CS–3B–BC–E, or CS–3A–BC–F]

Abort the call.
Release TABS resources.

ON{Speech response, calling party went on hook, billed party went on hook}
next_state [S2450 – Analyze Speech Response]

S2453 – [Locality: Analyze Speech No Resp]

IF {This was a locality call}
next_state [S2475 – no speech response reprompt (LO)]

Otherwise
next_state [S2470 – no speech response reprompt]

S2456 – [Locality: Analyze Speech Error]

IF {This was a locality call}
next_state [S2485 – Speech error reprompt (LO)]
Otherwise
next_state [S2480 – Speech error reprompt]

Call flow for collect calls (continued)

S2460 – [No DTMF response reprompt]

IF {Prison call AND RECORD_NAME_PRISON = YES,
OR
Non–prison call AND RECORD_NAME_NON_PRISON = YES}

"You have a collect call from: (pre–recorded name)."
[CS–9, CS–9A–BC–E, or CS–9A–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To accept the charges, press one. To refuse the charges, hang up now."
[OT–43,OT–43A–BC–E, OT–43B–BC–E, or OT–43A–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To accept the charges, press ONE now. To refuse the charges, press TWO"
[OT–51,OT–51A–BC–E,OT–51A–BC–F]

IF {Prison call AND RECORD_NAME_PRISON = NO}

"You have a collect call."
[CS–12,CS–12A–BC–E, or CS–12A–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To accept the charges, press one. To refuse the charges, hang up now."
[OT–43,OT–43A–BC–E, OT–43B–BC–E, or OT–43A–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To accept the charges, press ONE now. To refuse the charges, press TWO"
[OT–51,OT–51A–BC–E,OT–51A–BC–F]

Call flow for collect calls (continued)

S2460 (cont'd)

IF {Non–prison call AND RECORD_NAME_NON_PRISON = NO}

"You have a collect call."
[CS–11,CS–11A–BC–E, or CS–11A–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To accept the charges, press one.
To refuse the charges, hang up now."
[OT–43,OT–43A–BC–E, OT–43B–BC–E,
or OT–43A–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To accept the charges, press ONE now.
To refuse the charges, press TWO"
[OT–51,OT–51A–BC–E,OT–51A–BC–F]

ON{ DTMF response, calling party went on–hook,
billed party went on–hook}
next_state [S2440 – Analyze DTMF Response]

S2464 – [Verify refusal]

IF {Enh_Screen_Code matches Prison_No_Oper}

"Please hang up now."
[OT–22, OT–22A–BC–E, OT–22A–BC–F]

next_state [S7000–Route to Operator (blocked)]

"You have refused the charges. Please hang up
now. (pause) For operator assistance, remain on
the line."
[OT–3,OT–3A–BC–E, OT–3A–BC–F, or OT–3B–BC–F]

ON{No response (BILL_ACC_CONF_CUT_OFF) within 4.0 seconds}
Disable talk path of billed party.
Enable listen path of calling party.

Call flow for collect calls (continued)

S2464 (cont'd)

IF {Enh_Screen_Code matches Prison_No_Oper}

"Please hang up now."
[OT–22, OT–22A–BC–E, OT–22A–BC–F]

next_state [S7000–Route to Operator (blocked)]

"Please hold for operator assistance."
[OT–18,OT–18A–BC–E, or OT–18A–BC–F]

Request call to be sent to operator.
Release resources.

ON{Billed party went on hook}
Release billed party.
Enable listen path.

"The charges for this call have been refused.
Please hang up now."
[OT–17,OT–17A–BC–E,OT–17A–BC–F,
or OT–17B–BC–F]

Abort the Call.
Release resources.

ON{Calling party went on hook}
Release calling party.

"(On–hook click) The person calling you has
hung up. You will not be charged for this
call. Please hang up now."
[CS–3,CS–3A–BC–E,CS–3B–BC–E, or CS–3A–BC–F]

Abort the call.
Release TABS resources.

Call flow for collect calls (continued)

S2465 – [No DTMF response reprompt (LO)]

IF {Locality prompt available for DN}

IF {CDB_NPL_MODE = LOC_FIRST}

"You have a collect call from (calling locality) from (prerecorded name)."
[CS–19A–BC–E or CS–19A–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To accept the charges, press one. To refuse the charges, hang up now."
[OT–43,OT–43A–BC–E,OT–43B–BC–E, or OT–43A–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To accept the charges, press ONE now. To refuse the charges, press TWO"
[OT–51,OT–51A–BC–E,OT–51A–BC–F]

IF {CDB_NPL_MODE = NAME_FIRST}

"You have a collect call from (Prerecorded Name) at/from/of (calling locality)."
[CS–9,CS–9A–BC–E, or CS–9A–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To accept the charges, press one. To refuse the charges, hang up now."
[OT–43,OT–43A–BC–E, OT–43B–BC–E, or OT–43A–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To accept the charges, press ONE now. To refuse the charges, press TWO"
[OT–51,OT–51A–BC–E,OT–51A–BC–F]

Call flow for collect calls (continued)

S2465 (cont'd)

IF {CDB_NPL_MODE = LOC_ONLY}

"You have a collect call from:
(calling locality)."
[CS–19A–BC–E or CS–19A–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To accept the charges, press one.
To refuse the charges, hang up
now."
[OT–43,OT–43A–BC–E, OT–43B–BC–E,
or OT–43A–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To accept the charges, press ONE
now. To refuse the charges, press
TWO"
[OT–51,OT–51A–BC–E,OT–51A–BC–F]

Otherwise {Prompt not Available}

IF {call originated from prison
(screening code in table SCREENING_CODES with PRISON or
PRISON_NO_OPER)}

IF {CDB_NPL_MODE = LOC_FIRST OR
CDB_NPL_MODE = NAME_FIRST}

"You have a collect call :
(prerecorded name)."
[CS–12, CS–12A–BC–E, or CS–12A–BC–F]
"To accept the charges, press one."

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To accept the charges, press
one. To refuse the charges,
hang up now."
[OT–43,OT–43A–BC–E,OT–43B–BC–E,
or OT–43A–BC–F]

Call flow for collect calls (continued)

S2465 (cont'd)

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To accept the charges, press
ONE now. To refuse the
charges, press TWO"
[OT–51,OT–51A–BC–E,OT–51A–BC–F]

IF {CDB_NPL_MODE = LOC_ONLY}

"You have a collect call."
[CS–12,CS–12A–BC–E, or CS–12A–BC–F]
"To accept the charges, press one.
To refuse the charges, hang up
now."
[OT–43,OT–43A–BC–E, OT–43B–BC–E,
or OT–43A–BC–F]

Otherwise {Call Originated from Non–Prison}
IF {CDB_NPL_MODE = LOC_FIRST OR
CDB_NPL_MODE = NAME_FIRST}

"You have a collect call :
(prerecorded name)."
[CS–12, CS–12A–BC–E, or CS–12A–BC–F]
"To accept the charges, press one.
To refuse the charges, hang up
now."
[OT–43,OT–43A–BC–E, OT–43B–BC–E,
or OT–43A–BC–F]

IF {CDB_NPL_MODE = LOC_ONLY}

"You have a collect call."
[CS–12,CS–12A–BC–E, or CS–12A–BC–F]
"To accept the charges, press one.
To refuse the charges, hang up
now."
[OT–43,OT–43A–BC–E, OT–43B–BC–E,
or OT–43A–BC–F]

ON{DTMF response, calling party went on–hook,
billed party went on–hook}
next_state [S2440 – Analyze DTMF Response]

Call flow for collect calls (continued)

S2470 – [No Speech response reprompt]

IF {Prison call AND RECORD_NAME_PRISON = YES,
OR
Non–prison call AND RECORD_NAME_NON_PRISON = YES}

"You have a collect call from: (pre–recorded name)."
[CS–9, CS–9A–BC–E, or CS–9A–BC–F]

IF {BILLING_ACCEPTANCE_METHOD = SPEECH}

"Please answer the following question YES or NO.Will you accept the charges?"
[OT–6,OT–6A,OT–6A–BC–E,OT–6B–BC–E, OT–6A–BC–F, or OT–6B–BC–F]

Otherwise {BILLING_ACCEPTANCE_METHOD = BOTH}

"You may press ONE now to accept the charges, press TWO to refuse the charges, or answer the following question with only YES or NO. Will you accept the charges?"
[OT–61,OT–61A–BC–E, OT–61A–BC–F]

IF {Prison call AND RECORD_NAME_PRISON = NO}

"You have a collect call."
[CS–12,CS–12A–BC–E, or CS–12A–BC–F]

IF {BILLING_ACCEPTANCE_METHOD = SPEECH}

"Please answer the following question YES or NO.Will you accept the charges?"
[OT–6,OT–6A,OT–6A–BC–E,OT–6B–BC–E, OT–6A–BC–F, or OT–6B–BC–F]

Otherwise {BILLING_ACCEPTANCE_METHOD = BOTH}

"You may press ONE now to accept the charges, press TWO to refuse the charges, or answer the following question with only YES or NO. Will you accept the charges?"
[OT–61,OT–61A–BC–E,OT–61A–BC–F]

Call flow for collect calls (continued)

S2470 (cont'd)

IF {Non–prison call AND RECORD_NAME_NON_PRISON = NO}

"You have a collect call."
[CS–11,CS–11A–BC–E, or CS–11A–BC–F]

IF {BILLING_ACCEPTANCE_METHOD = SPEECH}

"Please answer the following question YES or NO.Will you accept the charges?"
[OT–6,OT–6A,OT–6A–BC–E,OT–6B–BC–E, OT–6A–BC–F, or OT–6B–BC–F]

Otherwise {BILLING_ACCEPTANCE_METHOD = BOTH}

"You may press ONE now to accept the charges, press TWO to refuse the charges, or answer the following question with only YES or NO. Will you accept the charges?"
[OT–61,OT–61A–BC–E, OT–61A–BC–F]

ON{Speech response, calling party went on–hook, billed party went on–hook}
next_state [S2450 – Analyze Speech Response]

S2475 – [No Speech response reprompt (LO)]

IF {Locality prompt available for DN}
IF {CDB_NPL_MODE = LOC_FIRST}

"You have a collect call from (calling locality) from (prerecorded name)."
[CS–19A–BC–E or CS–19A–BC–F]

IF {BILLING_ACCEPTANCE_METHOD = SPEECH}

"Please answer the following question YES or NO.Will you accept the charges?"
[OT–6,OT–6A,OT–6A–BC–E,OT–6B–BC–E, OT–6A–BC–F, or OT–6B–BC–F]

Call flow for collect calls (continued)

S2475 (cont'd)

Otherwise {BILLING_ACCEPTANCE_METHOD = BOTH}

"You may press ONE now to accept the charges, press TWO to refuse the charges, or answer the following question with only YES or NO. Will you accept the charges?"
[OT–61,OT–61A–BC–E,OT–61A–BC–F]

IF {CDB_NPL_MODE = NAME_FIRST}

"You have a collect call from (Prerecorded Name) at/from/of (calling locality)."
[CS–9,CS–9A–BC–E, or CS–9A–BC–F]

IF {BILLING_ACCEPTANCE_METHOD = SPEECH}

"Please answer the following question YES or NO.Will you accept the charges?"
[OT–6,OT–6A,OT–6A–BC–E,OT–6B–BC–E, OT–6A–BC–F, or OT–6B–BC–F]

Otherwise {BILLING_ACCEPTANCE_METHOD = BOTH}

"You may press ONE now to accept the charges, press TWO to refuse the charges, or answer the following question with only YES or NO. Will you accept the charges?"
[OT–61,OT–61A–BC–E,OT–61A–BC–F]

IF {CDB_NPL_MODE = LOC_ONLY}

"You have a collect call from: (calling locality)."
[CS–19A–BC–E or CS–19A–BC–F]

Call flow for collect calls (continued)

S2475 (cont'd)

IF {BILLING_ACCEPTANCE_METHOD = SPEECH}

"Please answer the following question YES or NO.Will you accept the charges?"
[OT–6,OT–6A,OT–6A–BC–E,OT–6B–BC–E, OT–6A–BC–F, or OT–6B–BC–F]

Otherwise {BILLING_ACCEPTANCE_METHOD = BOTH}

"You may press ONE now to accept the charges, press TWO to refuse the charges, or answer the following question with only YES or NO. Will you accept the charges?"
[OT–61,OT–61A–BC–E,OT–61A–BC–F]

Otherwise {Prompt not Available}
IF {call originated from prison (screening code in table SCREENING_CODES with PRISON or PRISON_NO_OPER)}

IF {CDB_NPL_MODE = LOC_FIRST OR CDB_NPL_MODE = NAME_FIRST}

"You have a collect call : (prerecorded name)."
[CS–12,CS–12A–BC–E, or CS–12A–BC–F]

IF {BILLING_ACCEPTANCE_METHOD = SPEECH}

"Please answer the following question YES or NO.Will you accept the charges?"
[OT–6,OT–6A,OT–6A–BC–E, OT–6B–BC–E, OT–6A–BC–F, or OT–6B–BC–F]

Call flow for collect calls (continued)

S2475 (cont'd)

Otherwise {BILLING_ACCEPTANCE_METHOD = BOTH}

"You may press ONE now to accept the charges,press TWO to refuse the charges, or answer the following question with only YES or NO. Will you accept the charges?"
[OT–61,OT–61A–BC–E, OT–61A–BC–F]

IF {CDB_NPL_MODE = LOC_ONLY}

"You have a collect call."
[CS–12,CS–12A–BC–E, or CS–12A–BC–F]

IF {BILLING_ACCEPTANCE_METHOD = SPEECH}

"Please answer the following question YES or NO.Will you accept the charges?"
[OT–6,OT–6A,OT–6A–BC–E, OT–6B–BC–E, OT–6A–BC–F, or OT–6B–BC–F]

Otherwise {BILLING_ACCEPTANCE_METHOD = BOTH}

"You may press ONE now to accept the charges,press TWO to refuse the charges, or answer the following question with only YES or NO. Will you accept the charges?"
[OT–61,OT–61A–BC–E, OT–61A–BC–F]

Call flow for collect calls (continued)

S2475 (cont'd)

Otherwise {Call Originated from Non–Prison}
IF {CDB_NPL_MODE = LOC_FIRST OR
CDB_NPL_MODE = NAME_FIRST}

"You have a collect call :
(prerecorded name)."
[CS–12,CS–12A–BC–E, or CS–12A–BC–F]
"Please answer the following
question YES or NO.
Will you accept the charges?"
[OT–6,OT–6A,OT–6A–BC–E,OT–6B–BC–E,
OT–6A–BC–F, or OT–6B–BC–F]

IF {CDB_NPL_MODE = LOC_ONLY}

"You have a collect call."
[CS–12,CS–12A–BC–E, or CS–12A–BC–F]
"Please answer the following
question YES or NO. Will you accept
the charges?"
[OT–6,OT–6A,OT–6A–BC–E,OT–6B–BC–E,
OT–6A–BC–F, or OT–6B–BC–F]

ON {Speech response, calling party went on–hook,
billed party went on–hook}
next_state [S2450 – Analyze Speech Response]

S2480 – [Speech error reprompt]

IF {Prison call AND RECORD_NAME_PRISON = YES,
OR
Non–prison call AND RECORD_NAME_NON_PRISON = YES}

"Your response was not understood.
You have a collect call from :"
(pre–recorded name).
[CS–10, CS–10A,CS–10A–BC–E, or CS–10A–BC–F]

IF {BILLING_ACCEPTANCE_METHOD = SPEECH}

"Please answer the following question YES
or NO.Will you accept the charges?"
[OT–6,OT–6A,OT–6A–BC–E,OT–6B–BC–E,
OT–6A–BC–F, or OT–6B–BC–F]

Call flow for collect calls (continued)

S2480 (cont'd)

Otherwise {BILLING_ACCEPTANCE_METHOD = BOTH}

"You may press ONE now to accept the charges, press TWO to refuse the charges, or answer the following question with only YES or NO. Will you accept the charges?"
[OT–61,OT–61A–BC–E, OT–61A–BC–F]

IF {Prison call AND RECORD_NAME_PRISON = NO}

"Your response was not understood. You have a collect call."
[CS–14,CS–14A–BC–E, or CS–14A–BC–F]

IF {BILLING_ACCEPTANCE_METHOD = SPEECH}

"Please answer the following question YES or NO.Will you accept the charges?"
[OT–6,OT–6A,OT–6A–BC–E,OT–6B–BC–E, OT–6A–BC–F, or OT–6B–BC–F]

Otherwise {BILLING_ACCEPTANCE_METHOD = BOTH}

"You may press ONE now to accept the charges, press TWO to refuse the charges, or answer the following question with only YES or NO. Will you accept the charges?"
[OT–61,OT–61A–BC–E, OT–61A–BC–F]

IF {Non–prison call AND RECORD_NAME_NON_PRISON = NO}

"Your response was not understood. You have a collect call."
[CS–13,CS–13A–BC–E, or CS–13A–BC–F]

IF {BILLING_ACCEPTANCE_METHOD = SPEECH}

"Please answer the following question YES or NO.Will you accept the charges?"
[OT–6,OT–6A,OT–6A–BC–E,OT–6B–BC–E, OT–6A–BC–F, or OT–6B–BC–F]

Call flow for collect calls (continued)

S2480 (cont'd)

Otherwise {BILLING_ACCEPTANCE_METHOD = BOTH}

"You may press ONE now to accept the charges, press TWO to refuse the charges, or answer the following question with only YES or NO. Will you accept the charges?"
[OT–61,OT–61A–BC–E, OT–61A–BC–F]

ON{Speech response, calling party went on–hook, billed party went on–hook}
next_state [S2450 – Analyze Speech Response]

S2485 – [Speech error reprompt (LO)]

IF {Locality prompt available for DN}
IF {CDB_NPL_MODE = LOC_FIRST}

"Your response was not understood. You have a collect call from (calling locality) from (prerecorded name)."
[CS–20A–BC–E or CS–20A–BC–F]

IF {BILLING_ACCEPTANCE_METHOD = SPEECH}

"Please answer the following question YES or NO.Will you accept the charges?"
[OT–6,OT–6A,OT–6A–BC–E, OT–6B–BC–E, OT–6A–BC–F, or OT–6B–BC–F]

Otherwise {BILLING_ACCEPTANCE_METHOD = BOTH}

"You may press ONE now to accept the charges,press TWO to refuse the charges, or answer the following question with only YES or NO. Will you accept the charges?"
[OT–61,OT–61A–BC–E, OT–61A–BC–F]

Call flow for collect calls (continued)

S2485 (cont'd)

IF {CDB_NPL_MODE = NAME_FIRST}

"Your response was not understood. You have a collect call from (Prerecorded Name) at/from/of (calling locality)."
[CS–10,CS–10A,CS–10A–BC–E, or CS–10A–BC–F]

IF {BILLING_ACCEPTANCE_METHOD = SPEECH}

"Please answer the following question YES or NO.Will you accept the charges?"
[OT–6,OT–6A,OT–6A–BC–E, OT–6B–BC–E, OT–6A–BC–F, or OT–6B–BC–F]

Otherwise {BILLING_ACCEPTANCE_METHOD = BOTH}

"You may press ONE now to accept the charges,press TWO to refuse the charges, or answer the following question with only YES or NO. Will you accept the charges?"
[OT–61,OT–61A–BC–E, OT–61A–BC–F]

IF {CDB_NPL_MODE = LOC_ONLY}

"Your response was not understood. You have a collect call from: (calling locality)."
[CS–20A–BC–E CS–20A–BC–F]

Call flow for collect calls (continued)

S2485 (cont'd)

IF {BILLING_ACCEPTANCE_METHOD = SPEECH}

"Please answer the following question YES or NO.Will you accept the charges?"
[OT–6,OT–6A,OT–6A–BC–E, OT–6B–BC–E, OT–6A–BC–F, or OT–6B–BC–F]

Otherwise {BILLING_ACCEPTANCE_METHOD = BOTH}

"You may press ONE now to accept the charges,press TWO to refuse the charges, or answer the following question with only YES or NO. Will you accept the charges?"
[OT–61,OT–61A–BC–E, OT–61A–BC–F]

Otherwise {Prompt not Available}

IF {call originated from prison (screening code in table SCREENING_CODES with PRISON or PRISON_NO_OPER)}

IF {CDB_NPL_MODE = LOC_FIRST OR CDB_NPL_MODE = NAME_FIRST}

"Your response was not understood. You have a collect call : (prerecorded name]."
[CS–14, CS–14A–BC–E, or CS–14A–BC–F]

IF {BILLING_ACCEPTANCE_METHOD = SPEECH}

"Please answer the following question YES or NO.Will you accept the charges?"
[OT–6,OT–6A,OT–6A–BC–E, OT–6B–BC–E, OT–6A–BC–F, or OT–6B–BC–F]

Call flow for collect calls (continued)

S2485 (cont'd)

Otherwise {BILLING_ACCEPTANCE_METHOD = BOTH}

"You may press ONE now to accept the charges,press TWO to refuse the charges, or answer the following question with only YES or NO. Will you accept the charges?"
[OT–61,OT–61A–BC–E, OT–61A–BC–F]

IF {CDB_NPL_MODE = LOC_ONLY}

"Your response was not understood. You have a collect call."
[CS–14,CS–14A–BC–E, or CS–14A–BC–F]

IF {BILLING_ACCEPTANCE_METHOD = SPEECH}

"Please answer the following question YES or NO.Will you accept the charges?"
[OT–6,OT–6A,OT–6A–BC–E, OT–6B–BC–E, OT–6A–BC–F, or OT–6B–BC–F]

Otherwise {BILLING_ACCEPTANCE_METHOD = BOTH}

"You may press ONE now to accept the charges,press TWO to refuse the charges, or answer the following question with only YES or NO. Will you accept the charges?"
[OT–61,OT–61A–BC–E, OT–61A–BC–F]

Call flow for collect calls (continued)

S2485 (cont'd)

Otherwise {Call Originated from Non–Prison}

IF {CDB_NPL_MODE = LOC_FIRST OR
CDB_NPL_MODE = NAME_FIRST}

"Your response was not understood.
You have a collect call:
(prerecorded name]."
[CS–13, CS–13A–BC–E, or CS–13A–BC–F]

IF {BILLING_ACCEPTANCE_METHOD
= SPEECH}

"Please answer the following
question YES or NO.Will you
accept the charges?"
[OT–6,OT–6A,OT–6A–BC–E,
OT–6B–BC–E, OT–6A–BC–F,
or OT–6B–BC–F]

Otherwise {BILLING_ACCEPTANCE_METHOD
= BOTH}

"You may press ONE now to
accept the charges,press TWO
to refuse the charges, or
answer the following question
with only YES or NO. Will you
accept the charges?"
[OT–61,OT–61A–BC–E,
OT–61A–BC–F]

IF {CDB_NPL_MODE = LOC_ONLY}

"Your response was not understood.
"You have a collect call."
[CS–13,CS–13A–BC–E, or CS–13A–BC–F]

Call flow for collect calls (continued)

S2485 (cont'd)

IF {BILLING_ACCEPTANCE_METHOD
= SPEECH}

"Please answer the following question YES or NO.Will you accept the charges?"
[OT–6,OT–6A,OT–6A–BC–E, OT–6B–BC–E, OT–6A–BC–F, or OT–6B–BC–F]

Otherwise {BILLING_ACCEPTANCE_METHOD
= BOTH}

"You may press ONE now to accept the charges,press TWO to refuse the charges, or answer the following question with only YES or NO. Will you accept the charges?"
[OT–61,OT–61A–BC–E, OT–61A–BC–F]

ON{Speech response, calling party went on–hook, billed party went on–hook}
next_state [S2450 – Analyze Speech Response]

Call flow for collect calls (continued)

S2490 – [DTMF error reprompt]

IF {Prison call AND RECORD_NAME_PRISON = YES,
OR
Non–prison call AND RECORD_NAME_NON_PRISON = YES}

"Your response was not valid. You have a collect call from: (pre–recorded name)."
[CS–15,CS–15A–BC–E, or CS–15A–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To accept the charges, press one. To refuse the charges, hang up now."
[OT–43,OT–43A–BC–E,OT–43B–BC–E, or OT–43A–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To accept the charges, press ONE now. To refuse the charges, press TWO"
[OT–51,OT–51A–BC–E,OT–51A–BC–F]

IF {Prison call AND RECORD_NAME_PRISON = NO}

"Your response is not valid. You have a collect call."
[CS–17,CS–17A–BC–E, or CS–17A–BC–F]
"To accept the charges press one.

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To accept the charges, press one. To refuse the charges, hang up now."
[OT–43,OT–43A–BC–E,OT–43B–BC–E, or OT–43A–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To accept the charges, press ONE now. To refuse the charges, press TWO"
[OT–51,OT–51A–BC–E,OT–51A–BC–F]

Call flow for collect calls (continued)

S2490 (cont'd)

IF {Non–prison call AND RECORD_NAME_NON_PRISON = NO}

"Your response is not valid. You have a collect call."
[CS–16,CS–16A–BC–E, or CS–16A–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To accept the charges, press one. To refuse the charges, hang up now."
[OT–43,OT–43A–BC–E,OT–43B–BC–E, or OT–43A–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To accept the charges, press ONE now. To refuse the charges, press TWO"
[OT–51,OT–51A–BC–E,OT–51A–BC–F]

ON{DTMF response, calling party went on–hook, billed party went on–hook}
next_state [S2440 – Analyze DTMF Response]

S2495 – [DTMF error reprompt (LO)]

IF {Locality prompt available for DN}

IF {CDB_NPL_MODE = LOC_FIRST}

"Your response was not valid. You have a collect call from (calling locality) from (prerecorded name)."
[CS–21A–BC–E or CS–21A–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To accept the charges, press one. To refuse the charges, hang up now."
[OT–43,OT–43A–BC–E,OT–43B–BC–E, or OT–43A–BC–F]

Call flow for collect calls (continued)

S2495 (cont'd)

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To accept the charges, press ONE now. To refuse the charges, press TWO"
[OT–51,OT–51A–BC–E,OT–51A–BC–F]

IF {CDB_NPL_MODE = NAME_FIRST}

"Your response was not valid. You have a collect call from (Prerecorded Name) at/from/of (calling locality)."
[CS–15,CS–15A–BC–E, or CS–15A–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To accept the charges, press one. To refuse the charges, hang up now."
[OT–43,OT–43A–BC–E,OT–43B–BC–E, or OT–43A–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To accept the charges, press ONE now. To refuse the charges, press TWO"
[OT–51,OT–51A–BC–E,OT–51A–BC–F]

IF {CDB_NPL_MODE = LOC_ONLY}

"Your response was not valid. You have a collect call from (calling locality)."
[CS–21A–BC–E or CS–21A–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To accept the charges, press one. To refuse the charges, hang up now."
[OT–43,OT–43A–BC–E,OT–43B–BC–E, or OT–43A–BC–F]

Call flow for collect calls (continued)

S2495 (cont'd)

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To accept the charges, press ONE now. To refuse the charges, press TWO"
[OT–51,OT–51A–BC–E,OT–51A–BC–F]

Otherwise {Prompt not Available}

IF {call originated from prison (screening code in table SCREENING_CODES with PRISON or PRISON_NO_OPER)}

IF {CDB_NPL_MODE = LOC_FIRST OR CDB_NPL_MODE = NAME_FIRST}

"Your response was not valid. You have a collect call : (prerecorded name]."
[CS–17, CS–17A–BC–E, or CS–17A–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To accept the charges, press one. To refuse the charges, hang up now."
[OT–43,OT–43A–BC–E,OT–43B–BC–E, or OT–43A–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To accept the charges, press ONE now. To refuse the charges, press TWO"
[OT–51,OT–51A–BC–E,OT–51A–BC–F]

IF {CDB_NPL_MODE = LOC_ONLY}

"Your response was not valid. You have a collect call."
[CS–17,CS–17A–BC–E, or CS–17A–BC–F]

Call flow for collect calls (continued)

S2495 (cont'd)

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To accept the charges, press one. To refuse the charges, hang up now."
[OT–43,OT–43A–BC–E,OT–43B–BC–E, or OT–43A–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To accept the charges, press ONE now. To refuse the charges, press TWO"
[OT–51,OT–51A–BC–E,OT–51A–BC–F]

Otherwise {Call Originated from Non–Prison}

IF {CDB_NPL_MODE = LOC_FIRST OR CDB_NPL_MODE = NAME_FIRST}

"Your response was not valid. You have a collect call: (prerecorded name]."
[CS–16, CS–16A–BC–E, or CS–16A–BC–F]
"To accept the charges, press one.

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To accept the charges, press one. To refuse the charges, hang up now."
[OT–43,OT–43A–BC–E,OT–43B–BC–E, or OT–43A–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To accept the charges, press ONE now. To refuse the charges, press TWO"
[OT–51,OT–51A–BC–E,OT–51A–BC–F]

IF {CDB_NPL_MODE = LOC_ONLY}

"Your response was not valid. You have a collect call."
[CS–16,CS–16A–BC–E, or CS–16A–BC–F]

Call flow for collect calls (continued)

S2495 (cont'd)

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To accept the charges, press one. To refuse the charges, hang up now."
[OT–43,OT–43A–BC–E,OT–43B–BC–E, or OT–43A–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To accept the charges, press ONE now. To refuse the charges, press TWO"
[OT–51,OT–51A–BC–E,OT–51A–BC–F]

ON{DTMF response, calling party went on–hook, billed party went on–hook}
next_state [S2440 – Analyze DTMF Response]

S24B2 – [Release billed party]

Release billed party.
Enable listen path.

"The charges for this call have not been accepted. Please hang up now."
[OT–4,OT–4A–BC–E, or OT–4A–BC–F]

Abort the call.
Release TABS resources.

S2600 – [MDS offer of service – Collect]

Request DMS RCVR circuit to monitor Calling party.

IF {Unable to allocate DMS RCVR }
next_state [S2305 – non MDS collect call flow]
Otherwise [S2602 – Check connection method]
next_state [S2305 – non MDS collect call flow]

S2602 – [Check connection method]

IF {Calling party allowed to listen in during billing acceptance (CALLING_LISTEN_IN_ACCEPT = YES)}
next_state [S2603 – MDS offer of service (one way)]
Otherwise
next_state [S2611 – Play zero way MDS offer – Check Prison Annc]

Call flow for collect calls (continued)

S2603 – [Zero way connection based on screening codes]

IF {Enh_Screen_Code match for Calling_No_Listen or
BillAnnc_CallNoLis}
next_state [S2610 – Play one way MDS offer]
Otherwise
next_state [S2611 – Play zero way MDS offer – Check Prison Annc]

S2610 – [Check Origination Status for MDS offer of service]

Determine MDS action and if call is an Operator Handoff

IF {VSN based Service Offer}
IF {Call is handoff collect}
next_state [S2610.2 – Play hookflash MDS Offer prompt]
Otherwise
next_state [S2610.1 – Play DTMF MDS Offer prompt]

IF {DMS based Service Offer}
"Please wait to see if the charges will be accepted.
[OT–7,OT–7A–BC–E,OT–7A–BC–F, or OT–7B–BC–F]
Set front end language to appropriate MDS autolang
next_state [S2615 – Connect Billed Party]

S2610.1– [MDS offer of service (one way) non Operator Handoff]

"Please wait to see if the charges will be accepted. If the line is busy or no one answers, press star for {service name}" [MD2]

ON{HOOKFLASH}
SET {Language to MDS operator}
Release DMS RCVR
next_state [S2704 – Request Operator for MDS assistance]

ON{DTMF ZERO}
SET {Language to MDS operator}
Release DMS RCVR
next_state [S2704 – Request Operator for MDS assistance]

ON{DTMF STAR}
SET {Language to automated MDS}
Release DMS RCVR
next_state [S2704 – Request Operator for MDS assistance]

OM {DTMF #}
next_state [S2615 – Connect billed party]
otherwise
next_state [S2615 – Connect billed party]

Call flow for collect calls (continued)

S2610.2– [MDS offer of service (one way) Operator Handoff calls]

"If the line is busy or no one answers, you can send a message by pressing the receiver button briefly."
[MD27A]

ON{HOOKFLASH}
    SET {Language to MDS operator}
    Release DMS RCVR
    next_state [S2704 – Request Operator for MDS assistance]

ON{DTMF ZERO}
    SET {Language to MDS operator}
    Release DMS RCVR
    next_state [S2704 – Request Operator for MDS assistance]

ON{DTMF STAR}
    SET {Language to automated MDS}
    Release DMS RCVR
    next_state [S2704 – Request Operator for MDS assistance]

OM {DTMF #}
    next_state [S2615 – Connect billed party]
otherwise
    next_state [S2615 – Connect billed party]

Call flow for collect calls (continued)

S2611 – [Play Prison "Call Recorded" Announcement (zero way)]

IF {Enh_Screen_Code matches either BillAccept_Annc or BillAnnc_CallNoLis}

"This call may be recorded or monitored."
[OT–62A, OT–62B, OT–62C, OT–62A–BC–E, OT–62B–BC–E,OT–62C–BC–E, or OT–62A–BC–F, OT–62A–BC–F, OT–62A–BC–F]

next_state [S2611.0 – Check Origination Status]

S2611.0– [Check Origination Status for MDS offer of service]

Determine MDS action and if call is an Operator Handoff

IF {VSN based Service Offer}
IF {Call is handoff collect}
next_state [S2611.2 – Play hookflash MDS Offer prompt]
Otherwise
next_state [S2611.1 – Play DTMF MDS Offer prompt]

IF {DMS based Service Offer}
"You will be put on hold when the other party answers. Please wait to see if the charges for this call will be accepted. [OT–21,OT–21A–BC–E,OT–21B–BC–E,OT–21A–BC–F, or OT–21B–BC–F]
Set front end language to appropriate MDS autolang
next_state [S2615 – Connect Billed Party]

Call flow for collect calls (continued)

S2611.1– [MDS offer of service (zero way) non Operator Handoff]

"You will be put on hold when the other party answers. Please wait to see if the charges will be accepted. If the line is busy of no one answers, press start for {service name}"
[MD3]

ON{HOOKFLASH}
SET {Language to MDS operator}
Release DMS RCVR
next_state [S2704 – Request Operator for MDS assistance]

ON{DTMF ZERO}
SET {Language to MDS operator}
Release DMS RCVR
next_state [S2704 – Request Operator for MDS assistance]

ON{DTMF STAR}
SET {Language to automated MDS}
Release DMS RCVR
next_state [S2704 – Request Operator for MDS assistance]

OM {DTMF #}
next_state [S2615 – Connect billed party]
otherwise
next_state [S2615 – Connect billed party]

S2611.2– [MDS offer of service (zero way) Operator Handoff calls]

"If the line is busy or no one answers, you can send a message by pressing the receiver button briefly."
[MD27A]

ON{HOOKFLASH}
SET {Language to MDS operator}
Release DMS RCVR
next_state [S2704 – Request Operator for MDS assistance]

ON{DTMF ZERO}
SET {Language to MDS operator}
Release DMS RCVR
next_state [S2704 – Request Operator for MDS assistance]

Call flow for collect calls (continued)

S2611.2 (cont'd)

ON{DTMF STAR}
SET {Language to automated MDS}
Release DMS RCVR
next_state [S2704 – Request Operator for MDS assistance]
OM {DTMF #}
next_state [S2615 – Connect billed party]
otherwise
next_state [S2615 – Connect billed party]

S2615 – [Connect billed party]

Connect billed party.

ON{Success}
next_state [S2617 – wait for off–hook]
otherwise
Release DMS RCVR
next_state [S2350.2 – return to Non MDS call flow]

S2617 – [Wait for off–hook]

Set Timer to wait for far end answer (no_far_end_ans_cut_off)

ON{OFF–HOOK}
IF {DMS based MDS Service OfferSET}
Clear MDS autolangs
Release DMS RCVR
next_state [S2370 – Alter Connection]

ON{HOOKFLASH}
SET {Language to MDS operator}
Release Called Party
Release DMS RCVR
next_state [S2704 – Request Operator for MDS assistance]

ON{DTMF ZERO}
SET {Language to MDS operator}
Release Called Party
Release DMS RCVR
next_state [S2704 – Request Operator for MDS assistance]

ON{DTMF STAR}
SET {Language to automated MDS}
Release Called Party
Release DMS RCVR
next_state [S2704 – Request Operator for MDS assistance]

otherwise (Timer expires)
Release Called Party
next_state [S2650 – 2nd MDS offer of service]

Call flow for collect calls (continued)

S2650 – [Check Origination Status for MDS offer of service]

Determine if call is an Operator Handoff

IF {VSN based Service Offer}
  IF {Call is handoff collect}
    next_state [S2650.2 – Play hookflash MDS Offer prompt]
  Otherwise
    next_state [S2650.1 – Play DTMF MDS Offer prompt]

IF {DMS based Service Offer}
  next_state [S2670 – Thank You]

S2650.1– [2nd MDS offer of service]

"Your call could not be completed.
Please hang up and try your call later,
or press star for {service name}"
[MD4]

ON{HOOKFLASH}
  SET {Language to MDS operator}
  Release DMS RCVR
  next_state [S2704 – Request Operator for MDS assistance]

ON{DTMF ZERO}
  SET {Language to MDS operator}
  Release DMS RCVR
  next_state [S2704 – Request Operator for MDS assistance]

ON{DTMF STAR}
  SET {Language to automated MDS}
  Release DMS RCVR
  next_state [S2704 – Request Operator for MDS assistance]
Otherwise
  next_state [S2670 – Thank You]

S2650.2– [2nd MDS offer of service]

"Your call could not be completed. Press the
receiver button briefly to send a message,
or hang up and try your call later."
[MD28]

ON{HOOKFLASH}
  SET {Language to MDS operator}
  Release DMS RCVR
  next_state [S2704 – Request Operator for MDS assistance]

Call flow for collect calls (continued)

S2650.2 (cont'd)

ON{DTMF ZERO}
SET {Language to MDS operator}
Release DMS RCVR
next_state [S2704 – Request Operator for MDS assistance]

ON{DTMF STAR}
SET {Language to automated MDS}
Release DMS RCVR
next_state [S2704 – Request Operator for MDS assistance]
otherwise
next_state [S2670 – Thank You]

S2670 – [Thank you]

"Your call could not be completed.
Please hang up and try your call later."
[MD5]

Rlease DMS RCVR
Abort the Call
Release TABS resources

S2704 – [Set languages for AudioGram calls]

Determine if call is an AudioGram call

IF {AudioGram has been selected}
Set front end language to AudioGram
next_state [S2705 – Request MDS Operator]

Otherwise
next_state [S2705 – Request MDS Operator]

S2705 – [Request Operator for MDS assistance]

Request call to be sent to operator.
Release TABS resources

Call flow for third number billing calls

S3000 – [Third–party Billing]

SET {Service = ThirdNum}
IF {Subscriber has entered “12”} next_state [S3500 – Collect 10 digits]
IF {Subscriber has entered NPA NXX XXXX}
next_state [S3100 – Third Number Billing Verification]

S3100 – [Third Number Billing Verification]

Determine station billing restrictions

IF {Billed number = called number,
AND
Station is not restricted from collect}
IF {Inform caller of collect processing
(BILLED_EQ_CALLED = YES)}
IF {Front End Language undefined}
CALL [S5000 – Front End Language Selection]

“The billing number you have entered is the same as the number you are calling. Your call is now being placed as a collect call.”
[TP–22–BC–E or TP–22A–BC–F]

next_state [S2000 – Collect call verification]

IF {Billed number = called number,
AND
Station is restricted from collect}
next_state [S3540 – collect not allowed]}

Otherwise
SEND {BNS validation}

ON {Receipt of response to BNS query}
next_state [S3101 – Database response analysis]

S3101 – [Database response analysis]

IF {Unable to obtain database response,
AND
BNS_QUERY_FAILURE = VERIFY}
next_state [S3111 – Non–Coin Check]

Call flow for third number billing calls (continued)

S3101 (cont'd)

IF {Billing number does not accept third–party calls}
IF {Front End Language undefined}
CALL [S5000 – Front End Language Selection]

"At the customer's request, calls may not be charged to this number."
[TP–3,TP–3A–BC–E,TP–3B–BC–E, or TP–3A–BC–F]

next_state [S3610 – billing denied action 1]

IF {Billing number is a public phone number}
IF {Front End Language undefined}
CALL [S5000 – Front End Language Selection]

"The billing number you have entered is a public telephone which cannot accept charges."
[TP–4,TP–4A–BC–E,TP–4B–BC–E, TP–4C–BC–E, or TP–4D–BC–E]

next_state [S3610 – billing denied action 1]

IF {Billing number is non–working number or vacant code}
IF {Front End Language undefined}
CALL [S5000 – Front End Language Selection]

"The billing number you have entered is not in service."
[TP–11,TP–11A–BC–E,TP–11B–BC–E, or TP–11A–BC–F]

next_state [S3620 – billing denied action 2]

IF {Manual validation needed}
next_state [S6000 – Route to Operator]

IF {Verification not needed}
next_state [S3110 – Coin phone check]

IF {Billing denied for other reason}
IF {Front End Language undefined}
CALL [S5000 – Front End Language Selection]

"Your call could not be completed."
[OT–32,OT–32A–BC–E, or OT–32A–BC–F]

next_state [S3630 – billing denied action 3]

Call flow for third number billing calls (continued)

S3110 – [Coin phone check]

IF {Call originated from coin phone and
VERIFY_COIN = YES}
next_state [S3180 – Time of day check]

Otherwise
next_state [S3120 – Screening code check]

S3111 – [Non–coin check]

IF {Call originated from non–coin phone and
ACCEPT_THIRD_NON_COIN = YES}

next_state [S3115 – Screening code check]

Otherwise
next_state [S3120 – Screening code check]

S3115 – [Screening code check – Accept if no Screening Code datafill]

IF {No screening code action specified and database
query response indicates no verification is needed,
OR
Screening code action = ACCEPT}

next_state [SB600 – MDS offer of service]

IF {Database query response indicates verification is needed,
OR
Screening code action = VERIFY}
next_state [S3180 – Time of Day check]

IF {Screening code action = OPERATOR}
next_state [S6000 – Route to operator]

Call flow for third number billing calls (continued)

S3120 – [Screening code check – Verify if no Screening Code datafill]

IF {Database query response indicates no verification is needed,
OR
Screening code action = ACCEPT}

next_state [SB600 – MDS offer of service]

IF {No screening code action specified and database query response indicates verification is needed,
OR
Screening code action = VERIFY}
next_state [S3180 – Time of Day check]

IF {Screening code action = OPERATOR}
next_state [S6000 – Route to operator]

S3180 – [Time of Day Check]

Check time of day office parameters and actions

ON{Time of day not in range}
next_state [S3185 – check language]

ON{Time of day in range and T_O_D_CHK = ACCEPT}

IF {custom branding Thank You prompt available}
Play Thank You Custom Brand prompt [OT12_CB]

Otherwise

"Thank you."
[OT–12A–BC–E, OT–12B–BC–E, OT–12C–BC–E,
OT–12A–BC–F, OT–12B–BC–F, or
OT–12C–BC–F]

Complete call.
Release TABS resources.

ON{Time of day in range and T_O_D_CHK = REJECT}

IF {Front End Language undefined}
CALL [S5000 – Front End Language Selection]

"We do not place calls billed to another number at this hour."
[TP–5,TP–5A–BC–E,TP–5B–BC–E, or TP–A–BC–F]

next_state [S3610 – billing denied action 1]

Call flow for third number billing calls (continued)

S3180 (cont'd)

ON{Time of day in range and T_O_D_CHK = VERIFY}
next_state [S3185 – Check Language]

ON{Time of day in range and T_O_D_CHK = OPERATOR}
next_state [S6000 – Route to Operator]

S3185 – [Check Language]

IF {Front End Language undefined}
CALL [S5000 – Front End Language Selection]
next_state [S3185A – Locality check (third)]

S3185A– [Locality Check (Third)]

IF {Don't use locality for any calls (LOCALITY_CHECK = NONE)}
next_state [S3190 – Caller's Name Check]

IF {Use locality for all calls (LOCALITY_CHECK = ALL)}
next_state [S3186 – Locality Treatment]

IF {Use locality for all screened calls (LOCALITY_CHECK = SCREEN)}
IF {the screening code is datafilled (calling SC in LOC_SCREEN_CODES)}
next_state [S3186 – Locality Treatment]
Otherwise
next_state [S3190 – Caller's Name Check]

S3186 [Locality Treatment]

IF {Locality prompt exists for DN}
next_state [S3301 – Check back end language selection]

Otherwise
next_state [S3190 – Caller's Name Check]

ON{Locality Database Failure}
next_state [S3187 – React to Database Failure]

S3187 – [React to Database Failure]

IF {Transfer all calls to operator on failure (LOC_DEFAULT_PROMPT = "NONE") OR (LOC_DEFAULT_PROMPT = "PRISON")}
next_state [S6400 – Route to Operator}

Otherwise
next_state [S3301 – Check back end language selection]

Call flow for third number billing calls (continued)

S3190 – [Caller's name check]

IF {RECORD_NAME_NON_PRISON = YES}
next_state [S3200 – Prompt for name]

Otherwise
next_state [S3301 – Check back end language selection]

S3200 – [Prompt for name]

"At the tone, please say your name.
(Beep Tone)."
[OT–8,OT–8A, OT–8B, OT–8A–BC–E, OT–8B–BC–E,
OT–8C–BC–E,OT–8A–BC–F, or OT–8B–BC–F]

ON{Name Recorded}
next_state [S3300 – Connect Party Setup]

ON{No speech response (NAME_RECORD_WAIT_TIME)
within 4.0 seconds}
IF {NAME_NO_RESPONSE limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S32A0 – Retry attained]
Otherwise
next_state [S3240 – No Response]

ON{Speech too soon}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S3300 – Connect Party Setup]
Otherwise
next_state [S3250 – Speech Too Soon]

ON{Speech longer than (NAME_RECORD_DURATION) 2.5 seconds}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S3300 – Connect Party Setup]
Otherwise
next_state [S3270 – Speech Too Long]

Call flow for third number billing calls (continued)

S3200 (cont'd)

ON{Other error}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S32A0 – Retry attained]
Otherwise
next_state [S3290 – Other error]

S3240 – [No Response]

"Your name was not heard. At the tone, please say your name. (Beep Tone)."
[OT–9,OT–9A,OT–9A–BC–E,OT–9B–BC–E,OT–9A–BC–F, or OT–9B–BC–F]

ON{Name Recorded}
next_state [S3300 – Connect Party Setup]

ON{No speech response (NAME_RECORD_WAIT_TIME) within 4.0 seconds}
IF {NAME_NO_RESPONSE limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S32A0 – Retry attained]
Otherwise
next_state [S3240 – No Response]

ON{Speech too soon}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S3300 – Connect Party Setup]
Otherwise
next_state [S3250 – Speech Too Soon]

ON{Speech longer than (NAME_RECORD_DURATION) 2.5 seconds}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S3300 – Connect Party Setup]
Otherwise
next_state [S3270 – Speech Too Long]

Call flow for third number billing calls (continued)

S3240 (cont'd)

ON{Other error}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S32A0 – Retry attained]
Otherwise
next_state [S3290 – Other error]

S3250 – [Speech Too Soon]

"Please wait until after the tone before saying your name. (Beep Tone)"
[OT–2,OT–2A–BC–E,OT–2B–BC–F, or OT–2B–BC–F]

ON{Name Recorded}
next_state [S3300 – Connect Party Setup]

ON{No speech response (NAME_RECORD_WAIT_TIME) within 4.0 seconds}
IF {NAME_NO_RESPONSE limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S32A0 – Retry attained]
Otherwise
next_state [S3240 – No Response]

ON{Speech too soon}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S3300 – Connect Party Setup]
Otherwise
next_state [S3250 – Speech Too Soon]

ON{Speech longer than (NAME_RECORD_DURATION) 2.5 seconds}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S3300 – Connect Party Setup]
Otherwise
next_state [S3270 – Speech Too Long]

Call flow for third number billing calls (continued)

S3250 (cont'd)

ON{Other error}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S32A0 – Retry attained]
Otherwise
next_state [S3290 – Other error]

S3270 – [Speech Too Long]

"Your response was too long. At the tone, please state just your name. (Beep Tone)."
[OT–30, OT–30A, OT–30A–BC–E, OT–30B–BC–E, OT–30C–BC–E, OT–30A–BC–F,OT–30B–BC–F, or OT–30C–BC–F]

ON{Name Recorded}
next_state [S3300 – Connect Party Setup]

ON{No speech response (NAME_RECORD_WAIT_TIME) within 4.0 seconds}
IF {NAME_NO_RESPONSE limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S32A0 – Retry attained]
Otherwise
next_state [S3240 – No Response]

ON{Speech too soon}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S3300 – Connect Party Setup]
Otherwise
next_state [S3250 – Speech Too Soon]

ON{Speech longer than (NAME_RECORD_DURATION) 2.5 seconds}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S3300 – Connect Party Setup]
Otherwise
next_state [S3270 – Speech Too Long]

Call flow for third number billing calls (continued)

S3270 (cont'd)

ON{Other error}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S32A0 – Retry attained]
Otherwise
next_state [S3290 – Other error]

S3290 – [Other error]

"Your name was not heard. At the tone, please say your name. (Beep Tone)."
[OT–9,OT–9A,OT–9A–BC–E,OT–9B–BC–E,OT–9A–BC–F, or OT–9B–BC–F]

ON{Name Recorded}
next_state [S3300 – Connect Party Setup]

ON{No speech response (NAME_RECORD_WAIT_TIME) within 4.0 seconds}
IF {NAME_NO_RESPONSE limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S32A0 – Retry attained]
Otherwise
next_state [S3240 – No Response]

ON{Speech too soon}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S3300 – Connect Party Setup]
Otherwise
next_state [S3250 – Speech Too Soon]

ON{Speech longer than (NAME_RECORD_DURATION) 2.5 seconds}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S3300 – Connect Party Setup]
Otherwise
next_state [S3270 – Speech Too Long]

Call flow for third number billing calls (continued)

S3290 (cont'd)

ON{Other error}
IF {NAME_FORMAT_ERR limit (1) attained,
OR
NAME_TOTAL_RETRY limit (1) attained}
next_state [S32A0 – Retry attained]
Otherwise
next_state [S3290 – Other error]

S32A0 – [Retry attained]

IF [Handoff Call]
next_state [S32A1 – Retry Attained – HandoffThird]

"Your response could not be understood.
For operator assistance, press zero."
[OT–23,OT–23A–BC–E, OT–23B–BC–E,OT–23C–BC–E,
or OT–23A–BC–F]

ON{Subscriber enters "0"}
next_state [S6000 – Route to Operator]

ON{Subscriber does not respond (REQ_OP_ON_ERR)
within 3.0 seconds}

"Please hang up and try your call again."
[OT–14,OT–14A–BC–E, OT–14A–BC–F]

Abort the call.
Release TABS resources.

ON{Subscriber went on hook}
Abort the call.
Release TABS resources.

S32A1 – [Retry attained – Handoff Third]

"Your response could not be understood.
For operator assistance, please remain on the
line."
[OT–39,OT–39A–BC–E,OT–39A–BC–F, or OT–39B–BC–F]

ON{Hookflash}
next_state [S6000 – Route to Operator]

ON{Subscriber enters "0"}
next_state [S6000 – Route to Operator]

Call flow for third number billing calls (continued)

S32A1 (cont'd)

ON{Subscriber does not respond (REQ_OP_ON_ERR)
within 3.0 seconds}
next_state [S6000 – Route to Operator]

ON{Subscriber went on hook}
Abort the call.
Release TABS resources.

S3300 – [Connect Party Setup]

SETUP {for connecting party}
next_state [3300.0 – Check for NPL Path]

S3300.0– [Check for NPL Path]

IF {Name Plus Locality Path}
next_state{S3304.3 – Continue with NPL Processing)

Otherwise
next_state [S3301 – Sucessful Name Recording]

S3301 – [Successful Name Recording]

IF {Notify caller (SUCCESS_REC_NAME = YES)}

"Thank you."
[OT–46–BC–E or OT–46A–BC–F]

next_state [S3302 – Separate Out Operator Handoff]

Otherwise
next_state [S3302 – Separate Out Operator Handoff]

S3302 – [Separate Out Operator Handoff before Back End Language Check]

IF {Operator Handoff call}
next_state [S3303 – Separate Locality from NameRec]

Otherwise [Back End Language Check]
IF {Single Language system}
IF {Language entered ("17" or "19")}
IF {Ignore Lang after SS
(LANG_AFTER_SS=Ignore)}
next_state [S3303 – Separate Locality
from NameRec]

Call flow for third number billing calls (continued)

S3302 (cont'd)

IF {Route to Operator if Language after SS (LANG_AFTER_SS=OPERATOR)}
next_state [S6000 – Route to Operator]

IF {Notify caller if Language after SS (LANG_AFTER_SS=MSG)}

"Language selection is not available in this area. The call will continue in English."
[OT–45A–BC–E or OT–45A–BC–F]

OR

"The number as entered is incorrect."
[SS–8,SS–8A–BC–E, SS–8B–BC–E, SS–8C–BC–E, or SS–8A–BC–F]
(OT45 is datafilled with SS–8)

next_state [S3303 – Separate Locality from NameRec]

Otherwise

IF {Back End Language Not Defined}
CALL [S5200 – Back End Lang Selection (ThirdNum)]
next_state [S3303 – Separate Locality from NameRec]

Otherwise
next_state [S3303 – Separate Locality from NameRec]

S3303 – Separate Locality from NameRec]

IF {Non–Locality Call}
next_state [S3305 – Check Connection Method]

IF {Locality Database Failure}
next_state[S3304 – Determine which NPL Mode Applies]

Otherwise {Locality Prompt exists for DN in requested language}
next_state[S3305 – Check Connection Method]

Call flow for third number billing calls (continued)

S3304 – [Determine which NPL Mode Applies]

IF {Name Plus Locality Mode}
  IF {CDB_NPL_MODE = LOC_FIRST OR CDB_NPL_MODE = NAME_FIRST}
    next_state[S3200 – Do Name Recording]
  Otherwise
    next_state[S3305 – Check Connection Method]
Otherwise
  next_state[S3120 – Send to Non–Locality Path]

S3305 – [Check Connection Method]

IF {Calling party allowed to listen in during billing acceptance (CALLING_LISTEN_IN_ACCEPT = YES)}
  next_state [S3306 – Check screening codes for zero way connect)]

Otherwise
  next_state [S3320 – Connect billed party (zero way)]

S3306 – [Zero way connection based on screening codes]

IF {Enh_Screen_Code match for Calling_No_Listen}
  next_state [S3320 – Connect billed party (zero–way)]
Otherwise
  next_state [S3310 – Connect billed party (one–way)]

S3310 – [Connect billed party]

```
"Please wait to see if the charges for this
 call will be accepted."
[OT-7,OT-7A,OT-7A-BC-E,OT-7A-BC-F,
 or OT-7B-BC-F]
```

Connect billed party.

ON{Connect succeeded}
  next_state [S3330 – Wait for off–hook msg]

ON{Treatment}
  WAIT {(TREATMENT_CUT_OFF_TIME) 50.0 seconds}
  next_state [S3350 – Release billed party]

ON{Connect failed}
  next_state [S3350 – Release billed party]

Call flow for third number billing calls (continued)

S3320 – [Connect billed party (zero way)]

```
"You will be put on hold when the other party
 answers. Please wait to see if the charges will
 be accepted."
[OT–21, OT–21A, OT–21A–BC–E, OT–21B–BC–E,
 OT–21C–BC–E, OT–21A–BC–F, or OT–21B–BC–F]
```

Connect billed party.

ON{Connect succeeded}
next_state [S3330 – Wait for off–hook msg]

ON{Treatment}
WAIT {(TREATMENT_CUT_OFF_TIME) 50.0 seconds}
next_state [S3350 – Release billed party]

ON{Connect failed}
next_state [S3350 – Release billed party]

S3330 – [Wait for off–hook msg]

Wait for billed party to go off–hook

ON{billed party goes off–hook}
next_state [S3370 – Alter connection]

ON{Billed party does not go off–hook
(NO_FAR_END_ANS_CUT_OFF) within 50.0 seconds}
next_state [S3350 – Release billed party]

S3350 – [Release billed party]

Release billed party.

```
"No one could be reached to accept the charges
 for this call."
[TP–12,TP–12A–BC–E,TP–12A–BC–F, or TP–12B–BC–F]
```

next_state [S3610 – billing denied action 1]

Call flow for third number billing calls (continued)

S3370 – [Alter connection]

IF {Calling party allowed to listen in during billing acceptance (CALLING_LISTEN_IN_ACCEPT = YES)}
IF {Enh_Screen_Code match for Calling_No_Listen}

Alter calling party connection zero way

Otherwise
Alter calling party connection one way

Otherwise
Alter calling party connection zero way

ON{Success}
next_state [S3410 – Detect end of “Hello”]

ON{Failure}
next_state [S3350 – Release billed party]

S3410 – [Detect end of “Hello”]

ON{Billed party went on–hook}
Release billed party.
Enable listen path.

```
“The other party hung up before being asked
 to accept the charges.”
[OT–36,OT–36A–BC–E, or OT–36A–BC–F]
```

next_state [S3640 – billing denied action 4]

ON{End of speech,
OR
No speech (GREETING_TIMEOUT) within 0.5 seconds,
OR
Speech longer than (GREETING_LENGTH) 1.5 seconds}
next_state [S3411 – Check Locality (Third)]

S3411 – [Check Locality (Third)]

IF {This was a locality call}
next_state [S3417 – Check Billing Accept method (LO)]

Otherwise
next_state [S3415 – Check Billing Acceptance method]

Call flow for third number billing calls (continued)

S3415 – [Check Billing Acceptance method]

IF {BILLING_ACCEPTANCE_METHOD = DTMF}
next_state [S3430 – DTMF Billing Acceptance]

Otherwise
next_state [S3420 – Speech/Both Billing Acceptance]

S3417 – [Check Billing Accept Method (LO)]

IF {BILLING_ACCEPTANCE_METHOD = DTMF}
next_state [S3435 – DTMF Billing Acceptance (LO)]

Otherwise
next_state [S3425 – Speech/Both Billing Acceptance(LO)]

S3420 – [Prompt for Speech/Both Billing Acceptance]

IF {Use caller's name in billing verification (RECORD_NAME_NON_PRISON = YES)}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E, or OT–OA–BC–F]

"We have a request to bill a call to your number. The call is being placed to another number by: (pre–recorded name)."
[TP–7,TP–7A–BC–E,TP–7A–BC–F, or TP–7B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = YES}
IF {BILLING_ACCEPTANCE_METHOD = BOTH}

"You may press ONE now to accept the charges, press TWO to refuse the charges, or answer the following question with only YES or NO. Will you pay for that call?
[TP–30, TP–30A–BC–E, TP–30A–BC–F]

Call flow for third number billing calls (continued)

S3420 (cont'd)

Otherwise {BILLING_ACCEPTANCE_METHOD = SPEECH}

"To refuse the charges, say NO. To pay for that call, say YES."
[TP–27,TP–27A–BC–E, TP–27A–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = NO}

"Please answer the following question YES or NO.Will you pay for that call?"
[TP–23A–BC–E,TP–23B–BC–E,TP–23A–BC–F, TP–23B–BC–F, or TP–23C–BC–F]

Otherwise

IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E, or OT–OA–BC–F]

"We have a request to bill a call to your number. The call is being placed to another number."
[TP–14,TP–14A, TP–14B,TP–14A–BC–E,TP–14A–BC–F, or TP–14B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = YES}

IF {BILLING_ACCEPTANCE_METHOD = BOTH}

"You may press ONE now to accept the charges, press TWO to refuse the charges, or answer the following question with only YES or NO. Will you pay for that call?
[TP–30, TP–30A–BC–E, TP–30A–BC–F]

Otherwise {BILLING_ACCEPTANCE_METHOD = SPEECH}

"To refuse the charges, say NO. To pay for that call, say YES."
[TP–27,TP–27A–BC–E, TP–27A–BC–F]

Call flow for third number billing calls (continued)

S3420 (cont'd)

Otherwise {PLAY_PRESS2_OR_SAYNO = NO}

"Please answer the following question YES or NO.Will you pay for that call?"
[TP–23A–BC–E,TP–23B–BC–E,TP–23A–BC–F, TP–23B–BC–F, or TP–23C–BC–F]

ON{Calling party went on hook}
Release the calling party.

"(On–hook click) The person placing the call has hung up. You will not be billed for this call. Please hang up now."
[OT–13,OT–13A–BC–E,OT–13B–BC–E, or OT–13A–BC–F]

Abort the call.
Release TABS resources.

ON{speech response or billed party went on hook}
next_state [S3450 – Analyze Speech Response]

S3425 – [Prompt for Speech Billing Acceptance (LO)]

IF {Locality prompt available for DN}

IF {CDB_NPL_MODE = LOC_FIRST}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)." [OT–0,OT–OA–BC–E, or OT–OA–BC–F] "

"We have a request to bill a call to your number. The call is being placed to another number from: (calling locality) by (Prerecorded Name)."
[TP–19,TP–19A–BC–E, TP–19A–BC–F, or TP–19B–BC–F]

Call flow for third number billing calls (continued)

S3425 (cont'd)

IF {PLAY_PRESS2_OR_SAYNO = YES}
IF {BILLING_ACCEPTANCE_METHOD = BOTH}

"You may press ONE now to accept the charges, press TWO to refuse the charges, or answer the following question with only YES or NO. Will you pay for that call?"
[TP–30, TP–30A–BC–E, TP–30A–BC–F]

Otherwise

"To refuse the charges, say NO. To pay for that call, say YES."
[TP–27,TP–27A–BC–E,TP–27A–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = NO}

"Please answer the following question YES or NO. Will you pay for that call?"
[TP–23A–BC–E,TP–23B–BC–E, TP–23A–BC–F, TP–23B–BC–F, or TP–23C–BC–F]

IF {CDB_NPL_MODE = NAME_FIRST}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E, or OT–OA–BC–F] "

We have a request to bill a call to your number. The call is being placed to another number by: (prerecorded name) from (calling locality)".
[TP–7,TP–7A–BC–E,TP–7A–BC–F, or TP–7B–BC–F]

Call flow for third number billing calls (continued)

S3425 (cont'd)

IF {PLAY_PRESS2_OR_SAYNO = YES}
IF {BILLING_ACCEPTANCE_METHOD = BOTH}

"You may press ONE now to accept the charges, press TWO to refuse the charges, or answer the following question with only YES or NO. Will you pay for that call?"
[TP–30, TP–30A–BC–E, TP–30A–BC–F]

Otherwise

"To refuse the charges, say NO. To pay for that call, say YES."
[TP–27,TP–27A–BC–E,TP–27A–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = NO}

"Please answer the following question YES or NO. Will you pay for that call?"
[TP–23A–BC–E,TP–23B–BC–E, TP–23A–BC–F, TP–23B–BC–F, or TP–23C–BC–F]

IF {CDB_NPL_MODE = LOC_ONLY}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E, or OT–OA–BC–F] "

"We have a request to bill a call to your number. The call is being placed to another number from: (Calling locality)."
[TP–19,TP–19A–BC–E,TP–19A–BC–F, or TP–19B–BC–F]

Call flow for third number billing calls (continued)

S3425 (cont'd)

IF {PLAY_PRESS2_OR_SAYNO = YES}
IF {BILLING_ACCEPTANCE_METHOD = BOTH}

"You may press ONE now to accept the charges, press TWO to refuse the charges, or answer the following question with only YES or NO. Will you pay for that call?"
[TP–30, TP–30A–BC–E, TP–30A–BC–F]

Otherwise

"To refuse the charges, say NO. To pay for that call, say YES."
[TP–27,TP–27A–BC–E,TP–27A–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = NO}

"Please answer the following question YES or NO. Will you pay for that call?"
[TP–23A–BC–E,TP–23B–BC–E, TP–23A–BC–F, TP–23B–BC–F, or TP–23C–BC–F]

Otherwise {No Prompt}

IF {Play the default prompt for non prison call (LOC_DEFAULT_PROMPT = ALL or NONPRISON)}
IF {CDB_NPL_MODE = LOC_FIRST OR CDB_NPL_MODE = NAME_FIRST}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Call flow for third number billing calls (continued)

S3425 (cont'd)

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E, or
OT–OA–BC–F] "

"We have a request to bill a call to your number. The call is being placed to another number (Prerecorded Name)."
[TP–14,TP–14A,TP–14A–BC–E,
TP–14A–BC–F, or TP–14B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = YES}
IF {BILLING_ACCEPTANCE_METHOD = BOTH}

"You may press ONE now to accept the charges, press TWO to refuse the charges, or answer the following question with only YES or NO. Will you pay for that call?"
[TP–30, TP–30A–BC–E,
TP–30A–BC–F]

Otherwise

"To refuse the charges, say NO. To pay for that call, say YES."
[TP–27,TP–27A–BC–E,TP–27A–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = NO}

"Please answer the following question YES or NO.
Will you pay for that call?"
[TP–23A–BC–E,TP–23B–BC–E,
TP–23A–BC–F, TP–23B–BC–F, or
TP–23C–BC–F]

Call flow for third number billing calls (continued)

S3425 (cont'd)

IF {CDB_NPL_MODE = LOC_ONLY}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E, or OT–OA–BC–F] "

"We have a request to bill a call to your number. The call is being placed to another number."
[TP–14,TP–14A,TP–14B, TP–14A–BC–E, TP–14A–BC–F, or TP–14B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = YES}
IF {BILLING_ACCEPTANCE_METHOD = BOTH}

"You may press ONE now to accept the charges, press TWO to refuse the charges, or answer the following question with only YES or NO. Will you pay for that call?"
[TP–30, TP–30A–BC–E, TP–30A–BC–F]

Otherwise

"To refuse the charges, say NO. To pay for that call, say YES."
[TP–27,TP–27A–BC–E,TP–27A–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = NO}

"Please answer the following question YES or NO. Will you pay for that call?"
[TP–23A–BC–E,TP–23B–BC–E, TP–23A–BC–F, TP–23B–BC–F, or TP–23C–BC–F]

Call flow for third number billing calls (continued)

S3425 (cont'd)

Otherwise

IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E, or OT–OA–BC–F] "

"We have a request to bill a call to your number. The call is being placed to another number."
[TP–14,TP–14A, TP–14B, TP–14A–BC–E, TP–14A–BC–F, or TP–14B–BC–F]

next_state [S6400 – Route to Operator – No Locality Prompt Avail/Non–Prison Call]

ON{Calling party went on hook}
Release the calling party.

"(On–hook click) The person placing the call has hung up. You will not be billed for this call. Please hang up now."
[OT–13,OT–13A–BC–E,OT–13B–BC–E, or OT–13A–BC–F]

Abort the call.
Release TABS resources.

ON{Other speech response, billed party went on hook}
next_state [S3450 – Analyze Speech Response]

Call flow for third number billing calls (continued)

S3430 – [Prompt for DTMF Billing Acceptance]

IF {Use caller's name in billing verification (RECORD_NAME_NON_PRISON = YES)}

IF {custom branding Billed Welcome prompt available}

Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E, or OT–OA–BC–F]

"We have a request to bill a call to your number. The call is being placed to another number by: (pre–recorded name)."
[TP–7,TP–7A–BC–E,TP–7A–BC–F, or TP–7B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = YES}

"If you will pay for that call, press one now. To refuse the charges, please press two.."
[TP–28,TP–28A–BC–E,TP–28A–BC–F]

Otherwise

"If you will pay for that call, press one now.To refuse the charges, please hang up."
[TP–25A–BC–E,TP–25A–BC–F, or TP–25B–BC–F]

Otherwise

IF {custom branding Billed Welcome prompt available}

Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E, or OT–OA–BC–F]

"We have a request to bill a call to your number. The call is being placed to another number."
[TP–14,TP–14A, TP–14B,TP–14A–BC–E,TP–14A–BC–F, or TP–14B–BC–F]

Call flow for third number billing calls (continued)

S3430 (cont'd)

IF {PLAY_PRESS2_OR_SAYNO = YES}

```
"If you will pay for that call, press one
 now.  To refuse the charges, please
 press two.."
[TP–28,TP–28A–BC–E,TP–28A–BC–F]
```

Otherwise

```
"If you will pay for that call, press one
 now.To refuse the charges, please hang
 up."
[TP–25A–BC–E,TP–25A–BC–F, or TP–25B–BC–F]
```

ON{Calling party went on hook}
Release the calling party.

```
"(On–hook click) The person placing the call
 has hung up. You will not be billed for this
 call. Please hang up now."
[OT–13,OT–13A–BC–E,OT–13B–BC–E, or
 OT–13A–BC–F]
```

Abort the call.
Release TABS resources.

ON{Other DTMF response, billed party went on hook}
next_state [S3440 – Analyze DTMF Response]

Call flow for third number billing calls (continued)

S3435 – [Prompt for DTMF Billing Acceptance (LO)]

IF {Locality prompt available for DN}
IF {CDB_NPL_MODE = LOC_FIRST}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt
[OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E, or OT–OA–BC–F]

"We have a request to bill a call to your number. The call is being placed to another number from: (Calling locality) by (Prerecorded Name."
[TP–19,TP–19A–BC–E,TP–19A–BC–F, or TP–19B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = YES}

"If you will pay for that call, press one now. To refuse the charges, please press two."
[TP–28,TP–28A–BC–E,TP–28A–BC–F]

Otherwise

"If you will pay for that call, press one now.To refuse the charges, please hang up."
[TP–25A–BC–E,TP–25A–BC–F, or TP–25B–BC–F]

IF {CDB_NPL_MODE = NAME_FIRST}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt
[OT0_CB]

Call flow for third number billing calls (continued)

S3435 (cont'd)

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E, or OT–OA–BC–F]

"We have a request to bill a call to your number. The call is being placed to another number by: (prerecorded name) from (calling locality)".
[TP–7,TP–7A, TP–7A–BC–E,TP–7A–BC–F, or TP–7B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = YES}

"If you will pay for that call, press one now. To refuse the charges, please press two."
[TP–28,TP–28A–BC–E,TP–28A–BC–F]

Otherwise

"If you will pay for that call, press one now.To refuse the charges, please hang up."
[TP–25A–BC–E,TP–25A–BC–F, or TP–25B–BC–F]

IF {CDB_NPL_MODE = LOC_ONLY}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E, or OT–OA–BC–F]

"We have a request to bill a call to your number. The call is being placed to another number from: (calling locality)."
[TP–19,TP–19A–BC–E,TP–19A–BC–F, or TP–19B–BC–F]

Call flow for third number billing calls (continued)

S3435 (cont'd)

IF {PLAY_PRESS2_OR_SAYNO = YES}

"If you will pay for that call, press one now. To refuse the charges, please press two."
[TP–28,TP–28A–BC–E,TP–28A–BC–F]

Otherwise

"If you will pay for that call, press one now.To refuse the charges, please hang up."
[TP–25A–BC–E,TP–25A–BC–F, or TP–25B–BC–F]

Otherwise {No Prompt}

IF {Play the default prompt for non prison call (LOC_DEFAULT_PROMPT = ALL or NONPRISON)}

IF {CDB_NPL_MODE = LOC_FIRST OR CDB_NPL_MODE = NAME_FIRST}

IF {custom branding Billed Welcome prompt available}

Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E, or OT–OA–BC–F]

"We have a request to bill a call to your number. The call is being placed to another number (Prerecorded Name)."
[TP–14,TP–14A,TP–14B,TP–14A–BC–E, TP–14A–BC–F, or TP–14B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = YES}

"If you will pay for that call, press one now. To refuse the charges, please press two."
[TP–28,TP–28A–BC–E, TP–28A–BC–F]

Call flow for third number billing calls (continued)

S3435 (cont'd)

Otherwise

"If you will pay for that call, press one now.To refuse the charges, please hang up."
[TP–25A–BC–E,TP–25A–BC–F, or TP–25B–BC–F]

IF {CDB_NPL_MODE = LOC_ONLY}
IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E, or OT–OA–BC–F]

"We have a request to bill a call to your number. The call is being placed to another number."
[TP–14,TP–14A, TP–14B, TP–14A–BC–E, TP–14A–BC–F, or TP–14B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = YES}

"If you will pay for that call, press one now. To refuse the charges, please press two."
[TP–28,TP–28A–BC–E, TP–28A–BC–F]

Otherwise

"If you will pay for that call, press one now.To refuse the charges, please hang up."
[TP–25A–BC–E,TP–25A–BC–F, or TP–25B–BC–F]

Call flow for third number billing calls (continued)

S3435 (cont'd)

Otherwise

IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

"This is (telco brand name2)."
[OT–0,OT–OA–BC–E, or OT–OA–BC–F]

"We have a request to bill a call to your number. The call is being placed to another number."
[TP–14,TP–14A, TP–14B, TP–14A–BC–E, TP–14A–BC–F, or TP–14B–BC–F]

next_state [S6400 – Route to Operator – No Locality Prompt Avail/Non–Prison Call]

ON{Calling party went on hook}
Release the calling party.

"(On–hook clik) The person placing the call has hung up. You will not be billed for this call. Please hang up now."
[OT–13,OT–13A–BC–E,OT–13B–BC–E, or OT–13A–BC–F]

Abort the call.
Release TABS resources.

ON{Other speech or DTMF response, billed party went on hook}
next_state [S3440 – Analyze DTMF Response]

Call flow for third number billing calls (continued)

S3440 – [Analyze DTMF Response]

IF {Billed party does not respond (BILL_ACC_TIMEOUT) within 4.0 seconds}
IF {BILLING_NO_RESPONSE limit (1) attained, OR BILLING_TOTAL_RETRY limit (1) attained}
IF {PLAY_BILLED_ONHOOK=NO}

```
"If you want to refuse the charges,
 please hang up now. For operator
 assistance, please remain on the
 line."
[OT–28,OT–28A–BC–E,OT–28A–BC–F, or
 OT–28A–BC–F]
```

next_state [S7000 – Route to Operator]

Otherwise

```
"For operator assistance, please
 stay on the line."
[OT–18, OT–18A–BC–E, OT–18A–BC–F]
```

Otherwise
next_state [S3443 – <Locality: Analyze DTMF No Resp]

ON{Billed party entered "1"}
next_state [S3462 – Verify acceptance]

ON{Billed party entered "0"}
Disable talk path of billed party.
Enable listen path of calling party.

```
"Please hold for operator assistance."
[OT–18,OT–18A–BC–E, or OT–18A–BC–F]
```

Request call to be sent to operator.
Release resources.

ON{Billed party went on hook – hangup}
next_state [S34B2 – Release billed party]

Call flow for third number billing calls (continued)

S3440 (cont'd)

ON{Subscriber entered invalid DTMF}
IF {BILLING_REJECT_ERR limit (1) attained,
OR
BILLING_TOTAL_RETRY limit (1) attained}
IF {PLAY_BILLED_ONHOOK=NO}

"Your response could not be understood. To refuse the charges, hang up now. For operator assistance, please remain on the line."
[OT–44,OT–44A–BC–E,OT–44A–BC–F, or OT–44B–BC–F]

next_state [S7000 – Route to Operator]

Otherwise

"Your response is not valid. For operator assistance, please stay on the line."
[OT–53,OT–53A,OT–53A–BC–E, OT–53B–BC–E, or OT–53A–BC–F]

next_state [S7000 – Route to Operator]

Otherwise
next_state [S3446 – Locality: Analyze DTMF Error]

ON{Other error}
IF {BILLING_TOTAL_RETRY limit (1) attained}

"If you want to refuse the charges hang up now. For operator assistance, please remain on the line."

IF {PLAY_BILLED_ONHOOK=NO}

"If you want to refuse the charges, hang up now. For operator assistance, please remain on the line."
[OT–28,OT–28A–BC–E,OT–28A–BC–F, or OT–28B–BC–F]

next_state [S7000 – Route to Operator]

Call flow for third number billing calls (continued)

S3440 (cont'd)

Otherwise

"For operator assistance, please stay on the line."
[OT–18, OT–18A–BC–E, OT–18A–BC–F]

next_state [S7000 – Route to Operator]

Otherwise
next_state [S3446 – Locality: Analyze DTMF Error]

ON{Calling party went on hook}
Release calling party.

"(On–hook click) The person placing the call has hung up. You will not be billed for this call. Please hang up now."
[OT–13,OT–13A–BC–E,OT–13B–BC–E, or OT–13A–BC–F]

Abort the call.
Release TABS resources.

ON{DTMF response, calling party went on hook, billed party went on hook}
next_state [S3440 – Analyze DTMF Response]

S3443 – [Locality: Analyze DTMF No Resp]

IF {This was a locality call}
next_state [S3461 – no DTMF response reprompt (LO)]

Otherwise
next_state [S3460 – no DTMF response reprompt]

S3446 – [Locality: Analyze DTMF Error]

IF {This was a locality call}
next_state [S3486 – DTMF error reprompt (LO)]

Otherwise
next_state [S3485 – DTMF error reprompt]

Call flow for third number billing calls (continued)

S3450 – [Analyze Speech Response]

IF {Billed party does not respond (BILL_ACC_TIMEOUT) within 4.0 seconds}
IF {BILLING_NO_RESPONSE limit (1) attained, OR BILLING_TOTAL_RETRY limit (1) attained}
IF {PLAY_BILLED_ONHOOK=NO}

"If you want to refuse the charges, hang up now. For operator assistance, please remain on the line."
[OT–28,OT–28A–BC–E,OT–28A–BC–F, or OT–28B–BC–F]

next_state [S7000 – Route to Operator]

Otherwise

"For operator assistance, please stay on the line."
[OT–18, OT–18A–BC–E, OT–18A–BC–F]

next_state [S3490 – Route to Operator on too many attempts]

Otherwise
next_state [S3453 – Locality: Analyze Speech No Resp]

IF {Billed party said "YES"}
next_state [S3462 – Verify acceptance]

IF {Billed party said "NO"}
next_state [S3464 – Verify refusal]

IF {Billed party enters "1", AND BILLING_ACCEPTANCE_METHOD = Both}

Enable listen path.

"You have accepted the charges. Please hang up now. (pause) For operator assistance, remain on the line."
[TP–10,TP–10A–BC–E,TP–10A–BC–F, or TP–10B–BC–F]

Call flow for third number billing calls (continued)

S3450 (cont'd)

Complete the call.
Release TABS resources.

IF {Billed party enters "0",
AND
BILLING_ACCEPTANCE_METHOD = Both}
next_state [S7000.0 – Back end manual routing]

IF {Speech is unrecognizable }

IF [Billing acceptance rejection error retry limit(C10=1), or
Total billing acceptance error retry limit(C11=1)] attained
IF {PLAY_BILLED_ONHOOK=NO}

"Your response could not be understood. If you want to refuse the charges, hang up now. For operator assistance, please remain on the line."
[OT–29,OT–29A,OT–29A–BC–E, OT–29A–BC–F, or OT–29B–BC–F]

next_state [S7000 – Route to Operator]

Otherwise

"Your response could not be underwtood. If you want to refuse the charges, hang up now. For operator assistance, please stay on the line."
[OT–52, OT–52A–BC–E, OT–52A–BC–F]

next_state [S3490 – Route to Operator]

Otherwise
next_state [S3456 – Locality: Analyze Speech Error]

IF {Speech was too long}
IF {BILLING_TOTAL_RETRY limit (1) attained}

"Your response could not be understood. For operator assistance, please remain on the line."
[OT–29,OT–29A,OT–29A–BC–E,OT–29A–BC–F, or OT–29B–BC–F]

Call flow for third number billing calls (continued)

S3450 (cont'd)

next_state [S3490 – Route to Operator on too many attempts]

Otherwise
next_state [S3456 – Locality: Analyze Speech Error]

IF {Speech came too soon}
IF {BILLING_TOTAL_RETRY limit (1) attained}
IF {PLAY_BILLED_ONHOOK=NO}

```
"Your response could not be
 understood.  If you want to refuse
 the charges, hang up now. For
 operator assistance, please remain
 on the line."
[OT–29,OT–29A,OT–29A–BC–E,
 OT–29A–BC–F, or OT–29B–BC–F]
```

next_state [S7000 – Route to Operator]

Otherwise

```
"Your response could not be
 underwtood.  If you want to refuse
 the charges, hang up now.  For
 operator assistance, please stay on
 the line."
[OT–52, OT–52A–BC–E, OT–52A–BC–F]
```

next_state [S7000 – Route to Operator]

Otherwise

next_state [S3458 – Locality: Analyze Speech Error]

IF {Other error}
IF {BILLING_TOTAL_RETRY limit (1) attained}
IF {PLAY_BILLED_ONHOOK=NO}

```
"Your response could not be
 understood.  If you want to refuse
 the charges, hang up now. For
 operator assistance, please remain
 on the line."
[OT–29,OT–29A,OT–29A–BC–E,
 OT–29A–BC–F, or OT–29B–BC–F]
```

next_state [S7000 – Route to Operator]

Call flow for third number billing calls (continued)

S3450 (cont'd)

Otherwise

"Your response could not be underwtood. If you want to refuse the charges, hang up now. For operator assistance, please stay on the line."
[OT–52, OT–52A–BC–E, OT–52A–BC–F]

next_state [S7000 – Route to Operator]

Otherwise
next_state [S3456 – Locality: Analyze Speech Error]

ON{Billed party went on hook}
next_state [S34B2 – Release billed party]

ON{Calling party went on hook}
Release calling party.

"(On–hook click) The person placing the call has hung up. You will not be billed for this call. Please hang up now."
[OT–13,OT–13A–BC–E,OT–13B–BC–E, or OT–13A–BC–F]

Abort the call.
Release TABS resources.

ON{Speech response, calling party went on hook, billed party went on hook}
next_state [S3450 – Analyze Speech Response]

S3453 – [Locality: Analyze Speech No Resp]

IF {This was a locality call}
next_state [S3475 – no speech response reprompt (LO)]

Otherwise
next_state [S3470 – no speech response reprompt]

S3456 – [Locality: Analyze Speech Error]

IF {This was a locality call}
next_state [S3482 – Speech error reprompt (LO)]

Otherwise
next_state [S3480 – Speech error reprompt]

Call flow for third number billing calls (continued)

S3460 – [No DTMF response reprompt]

IF {Use caller's name in billing verification (RECORD_NAME_NON_PRISON = YES)}

"We have a request to bill a call to your number. The call is being placed to another number by: (pre–recorded name)."
[TP–9,TP–9A–BC–E,TP–9A–BC–F, or TP–9B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To pay for that call, press one. To refuse the charges, hang up now."
[TP–26A–BC–E,TP–26A–BC–F, or TP–26B–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To pay for that call, press ONE now. To refuse the charges, press TWO."
[TP–29,TP–29A–BC–E,TP–29A–BC–F]

Otherwise

"We have a request to bill a call to your number. The call is being placed to another number."
[TP–15,TP–15A–BC–E, TP–15A–BC–F, or TP–15B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To pay for that call, press one. To refuse the charges, hang up now."
[TP–26A–BC–E,TP–26A–BC–F, or TP–26B–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To pay for that call, press ONE now. To refuse the charges, press TWO."
[TP–29,TP–29A–BC–E,TP–29A–BC–F]

ON{DTMF response, calling party went on–hook, or billed party went on–hook}
next_state [S3440 – Analyze DTMF Response]

Call flow for third number billing calls (continued)

S3461 – [No DTMF response reprompt (LO)]

IF {Locality prompt available for DN}

IF {CDB_NPL_MODE = LOC_FIRST}

"We have a request to bill a call to your number. The call is being placed to another number from: (calling locality) by (prerecorded name)."
[TP–19,TP–19A–BC–E, TP–19A–BC–F, or TP–19B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To pay for that call, press one. To refuse the charges, hang up now."
[TP–26A–BC–E,TP–26A–BC–F, or TP–26B–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To pay for that call, press ONE now. To refuse the charges, press TWO."
[TP–29,TP–29A–BC–E,TP–29A–BC–F]

IF {CDB_NPL_MODE = NAME_FIRST}

"We have a request to bill a call to your number. The call is being placed to another number by: (prerecorded name) from (calling locality)."
[TP–9,TP–9A–BC–E, TP–9A–BC–F, or TP–9B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To pay for that call, press one. To refuse the charges, hang up now."
[TP–26A–BC–E,TP–26A–BC–F, or TP–26B–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To pay for that call, press ONE now. To refuse the charges, press TWO."
[TP–29,TP–29A–BC–E,TP–29A–BC–F]

Call flow for third number billing calls (continued)

S3461 (cont'd)

IF {CDB_NPL_MODE = LOC_ONLY}

"We have a request to bill a call to your number. The call is being placed to another number from: (calling locality)."
[TP–19,TP–19A–BC–E,TP–19A–BC–F, or TP–19B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To pay for that call, press one. To refuse the charges, hang up now."
[TP–26A–BC–E,TP–26A–BC–F, or TP–26B–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To pay for that call, press ONE now. To refuse the charges, press TWO."
[TP–29,TP–29A–BC–E,TP–29A–BC–F]

Otherwise {No Prompt Available}

IF {CDB_NPL_MODE = LOC_FIRST OR CDB_NPL_MODE = NAME_FIRST

"We have a request to bill a call to your number. The call is being placed to another number: (Prerecorded Name)."
[TP–15,TP–15A–BC–E,TP–15A–BC–F, or TP–15B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To pay for that call, press one. To refuse the charges, hang up now."
[TP–26A–BC–E,TP–26A–BC–F, or TP–26B–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To pay for that call, press ONE now. To refuse the charges, press TWO."
[TP–29,TP–29A–BC–E,TP–29A–BC–F]

Call flow for third number billing calls (continued)

S3461 (cont'd)

IF (CDB_NPL_MODE = LOC_ONLY}

"We have a request to bill a call to your number. The call is being placed to another number."
[TP–15, TP–15A–BC–E,TP–15A–BC–F, or TP–15B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To pay for that call, press one. To refuse the charges, hang up now."
[TP–26A–BC–E,TP–26A–BC–F, or TP–26B–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To pay for that call, press ONE now. To refuse the charges, press TWO."
[TP–29,TP–29A–BC–E,TP–29A–BC–F]

ON{DTMF response, calling party went on–hook, or billed party went on–hook}
next_state [S3440 – Analyze DTMF Response]

S3462 – [Verify acceptance]

"You have accepted the charges. Please hang up now. (pause) For operator assistance, remain on the line."
[TP–10,TP–10A–BC–E, TP–10A–BC–F, or TP–10A–BC–F]

ON{No response (BILL_ACC_CONF_CUT_OFF) within 4.0 seconds}
Disable talk path of billed party.
Enable listen path of calling party.

"Please hold for operator assistance."
[OT–18,OT–18A–BC–E, or OT–18A–BC–F]

Request call to be sent to operator.
Release resources.

ON{Billed party went on hook}
next_state [S3600 – Release Billed and Float Call]

Call flow for third number billing calls (continued)

S3462 (cont'd)

ON{Calling party went on hook}
Release calling party.

"(On–hook click) The person placing the call has hung up. You will not be billed for this call. Please hang up now."
[OT–13,OT–13A–BC–E,OT–13B–BC–E, or OT–13A–BC–F]

Abort the call.
Release TABS resources.

S3464 – [Verify refusal]

"You have refused the charges. Please hang up now. (pause) For operator assistance, remain on the line." [OT–3,OT–3A–BC–E, OT–3A–BC–F, or OT–3B–BC–F]

ON{No response (BILL_ACC_CONF_CUT_OFF) within 4.0 seconds}
Disable talk path of billed party.
Enable listen path of calling party.

"Please hold for operator assistance."
[OT–18,OT–18A–BC–E, or OT–18A–BC–F]

Request call to be sent to operator.
Release resources.

ON{Billed party went on hook}
Release billed party.
Enable listen path.

"The charges for this call have been refused."
[OT–37,OT–37A–BC–E, OT–37A–BC–F, or OT–37B–BC–F]

next_state [S3650 – billing denied action 5]

Call flow for third number billing calls (continued)

S3464 (cont'd)

ON{Calling party went on hook}
Release calling party.

```
"(On-hook click) The person placing the call
 has hung up. You will not be billed for this
 call. Please hang up now."
[OT-13,OT-13A-BC-E,OT-13B-BC-E,
 or OT-13A-BC-F]
```

Abort the call.
Release TABS resources.

S3470 – [No Speech response reprompt]

IF {Use caller's name in billing verification

```
"We have a request to bill a call to your
 number. The call is being placed to another
 number by: (pre-recorded name)."
[TP-9,TP-9A-BC-E,TP-9A-BC-F, or TP-9B-BC-F]
```

IF {PLAY_PRESS2_OR_SAYNO = NO}

```
Please answer the following question YES
 or NO. Will you pay for that call?"
[TP-23A-BC-E,TP-23B-BC-E,
 TP-23A-BC-F,TP-23B-BC-F, or TP-23C-BC-F]
```

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

```
"To refuse the charges, say NO.  To  pay
 for that call, say YES."
[TP-27,TP-27A-BC-E,TP-27A-BC-F]
```

Otherwise

```
"We have a request to bill a call to your
 number. The call is being placed to another
 number."
[TP-15,TP-15A-BC-E, TP-15A-BC-F,
 or TP-15B-BC-F]

 Please answer the following question YES or
 NO. Will you pay for that call?"
[TP-23A-BC-E,TP-23B-BC-E, TP-23A-BC-F,
 TP-23B-BC-F, or TP-23C-BC-F]
```

Call flow for third number billing calls (continued)

S3470 (cont'd)

ON{Speech response, calling party went on–hook,
billed party went on–hook}
next_state [S3450 – Analyze Speech Response]

S3475 – [No Speech response reprompt (LO)]

IF {Locality prompt available for DN}
IF {CDB_NPL_MODE = LOC_FIRST}

"We have a request to bill a call to your number. The call is being placed to another number from: (calling locality) by (prerecorded name)."
[TP–19,TP–19A–BC–E, TP–19A–BC–F, or TP–19B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

Please answer the following question YES or NO.Will you pay for that call?"
[TP–23A–BC–E, TP–23B–BC–E, TP–23A–BC–F,TP–23B–BC–F, or TP–23C–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To refuse the charges, say NO. To pay for that call, say YES."
[TP–27,TP–27A–BC–E,TP–27A–BC–F]

IF {CDB_NPL_MODE = NAME_FIRST}

"We have a request to bill a call to your number. The call is being placed to another number by: (prerecorded name) from (calling locality)."
[TP–9, TP–9A–BC–E,TP–9A–BC–F, or TP–9B–BC–F]

Call flow for third number billing calls (continued)

S3475 (cont'd)

IF {PLAY_PRESS2_OR_SAYNO = NO}

Please answer the following question YES or NO.Will you pay for that call?"
[TP–23A–BC–E, TP–23B–BC–E, TP–23A–BC–F,TP–23B–BC–F, or TP–23C–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To refuse the charges, say NO. To pay for that call, say YES."
[TP–27,TP–27A–BC–E,TP–27A–BC–F]

IF {CDB_NPL_MODE = LOC_ONLY}

"We have a request to bill a call to your number. The call is being placed to another number from: (calling locality)."
[TP–19,TP–19A–BC–E,TP–19A–BC–F, or TP–19B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

Please answer the following question YES or NO.Will you pay for that call?"
[TP–23A–BC–E, TP–23B–BC–E, TP–23A–BC–F,TP–23B–BC–F, or TP–23C–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To refuse the charges, say NO. To pay for that call, say YES."
[TP–27,TP–27A–BC–E,TP–27A–BC–F]

Call flow for third number billing calls (continued)

S3475 (cont'd)

Otherwise {No Prompt Available}

IF {CDB_NPL_MODE = LOC_FIRST OR CDB_NPL_MODE = NAME_FIRST

"We have a request to bill a call to your number. The call is being placed to another number: (Prerecorded Name)."
[TP–15,TP–15A–BC–E,TP–15A–BC–F, or TP–15B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

Please answer the following question YES or NO.Will you pay for that call?"
[TP–23A–BC–E, TP–23B–BC–E, TP–23A–BC–F,TP–23B–BC–F, or TP–23C–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To refuse the charges, say NO. To pay for that call, say YES."
[TP–27,TP–27A–BC–E,TP–27A–BC–F]

IF (CDB_NPL_MODE = LOC_ONLY}

"We have a request to bill a call to your number. The call is being placed to another number."
[TP–15, TP–15A–BC–E,TP–15A–BC–F, or TP–15B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

Please answer the following question YES or NO.Will you pay for that call?"
[TP–23A–BC–E, TP–23B–BC–E, TP–23A–BC–F,TP–23B–BC–F, or TP–23C–BC–F]

Call flow for third number billing calls (continued)

S3475 (cont'd)

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To refuse the charges, say NO. To pay for that call, say YES."
[TP–27,TP–27A–BC–E,TP–27A–BC–F]

ON{Speech response, calling party went on–hook, billed party went on–hook}
next_state [S3450 – Analyze Speech Response]

S3480 – [Speech error reprompt]

IF {User caller's name in billing acceptance (RECORD_NAME_NON_PRISON = YES)}

"Your response was not understood. We have a request to bill a call to your number. The call is being placed to another number by: (pre–recorded name)."
[TP–6,TP–6A–BC–E,TP–6A–BC–F, or TP–6B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"Please answer the following question YES or NO.Will you pay for that call?"
[TP–23A–BC–E,TP–23B–BC–E,TP–23A–BC–F, TP–23B–BC–F, or TP–23C–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To refuse the charges, say NO. To pay for that call, say YES."
[TP–27,TP–27A–BC–E,TP–27A–BC–F]

Otherwise

"Your response was not understood. We have a request to bill a call to your number. The call is being placed to another number."
[TP–13,TP–13A–BC–E, TP–13A–BC–F, or TP–13B–BC–F]

Call flow for third number billing calls (continued)

S3480 (cont'd)

IF {PLAY_PRESS2_OR_SAYNO = NO}

"Please answer the following question YES or NO.Will you pay for that call?"
[TP–23A–BC–E,TP–23B–BC–E,TP–23A–BC–F, TP–23B–BC–F, or TP–23C–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To refuse the charges, say NO. To pay for that call, say YES."
[TP–27,TP–27A–BC–E,TP–27A–BC–F]

ON{DTMF response, calling party went on–hook, billed party went on–hook}
next_state [S3450 – Analyze Speech Response]

S3482 – [Speech error reprompt (LO)]

IF {Locality prompt available for DN}

IF {CDB_NPL_MODE = LOC_FIRST}

"Your response was not understood. We have a request to bill a call to your number. The call is being placed to another number from: (calling locality) by (prerecorded name)."
[TP–21,TP–21A–BC–E, TP–21A–BC–F, or TP–21B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"Please answer the following question YES or NO.Will you pay for that call?"
[TP–23A–BC–E,TP–23B–BC–E,TP–23A–BC–F, TP–23B–BC–F, or TP–23C–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To refuse the charges, say NO. To pay for that call, say YES."
[TP–27,TP–27A–BC–E,TP–27A–BC–F]

Call flow for third number billing calls (continued)

S3482 (cont'd)

IF {CDB_NPL_MODE = NAME_FIRST}

"Your response was not understood. We have a request to bill a call to your number. The call is being placed to another number from: (prerecorded name) from (calling locality)."
[TP–6,TP–6A–BC–E, TP–6A–BC–F, or TP–6B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"Please answer the following question YES or NO.Will you pay for that call?"
[TP–23A–BC–E,TP–23B–BC–E,TP–23A–BC–F, TP–23B–BC–F, or TP–23C–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To refuse the charges, say NO. To pay for that call, say YES."
[TP–27,TP–27A–BC–E,TP–27A–BC–F]

IF {CDB_NPL_MODE = LOC_ONLY}

"Your response was not understood. We have a request to bill a call to your number. The call is being placed to another number from: (calling locality)."
[TP–21,TP–21A–BC–E,TP–21A–BC–F, or TP–21B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"Please answer the following question YES or NO.Will you pay for that call?"
[TP–23A–BC–E,TP–23B–BC–E,TP–23A–BC–F, TP–23B–BC–F, or TP–23C–BC–F]

Call flow for third number billing calls (continued)

S3482 (cont'd)

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To refuse the charges, say NO.
To pay for that call, say YES."
[TP–27,TP–27A–BC–E,TP–27A–BC–F]

Otherwise {No Prompt Available}

IF {CDB_NPL_MODE = LOC_FIRST OR CDB_NPL_MODE = NAME_FIRST}

"Your response was not understood.
We have a request to bill a call to your number. The call is being placed to another number: (Prerecorded Name)."
[TP–13,TP–13A–BC–E,TP–13A–BC–F,
or TP–13B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"Please answer the following question YES or NO.Will you pay for that call?"
[TP–23A–BC–E,TP–23B–BC–E,TP–23A–BC–F,
TP–23B–BC–F, or TP–23C–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To refuse the charges, say NO.
To pay for that call, say YES."
[TP–27,TP–27A–BC–E,TP–27A–BC–F]

IF (CDB_NPL_MODE = LOC_ONLY}

"Your response was not understood.
We have a request to bill a call to your number. The call is being placed to another number."
[TP–13, TP–13A–BC–E,TP–13A–BC–F,
or TP–13B–BC–F]

Call flow for third number billing calls (continued)

S3482 (cont'd)

IF {PLAY_PRESS2_OR_SAYNO = NO}

"Please answer the following question YES or NO.Will you pay for that call?"
[TP–23A–BC–E,TP–23B–BC–E,TP–23A–BC–F, TP–23B–BC–F, or TP–23C–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To refuse the charges, say NO. To pay for that call, say YES."
[TP–27,TP–27A–BC–E,TP–27A–BC–F]

ON{DTMF response, calling party went on–hook, billed party went on–hook}
next_state [S3450 – Analyze Speech Response]

S3485 – [DTMF error reprompt]

IF {User caller's name in billing acceptance (RECORD_NAME_NON_PRISON = YES)}

"Your response is not valid. We have a request to bill a call to your number. The call is being placed to another number by: pre–recorded name)."
[TP–16,TP–16A–BC–E,TP–16A–BC–F, or TP–16B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To pay for that call, press one. To refuse the charges, hang up now."
[TP–26A–BC–E,TP–26A–BC–F, or TP–26B–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To pay for that call, press ONE now. To refuse the charges, press TWO."
[TP–29,TP–29A–BC–E,TP–29A–BC–F]

Call flow for third number billing calls (continued)

S3485 (cont'd)

Otherwise

"Your response is not valid.
We have a request to bill a call to your number. The call is being placed to another number."
[TP–17,TP–17A–BC–E, TP–17A–BC–F, or TP–17B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To pay for that call, press one.
To refuse the charges, hang up now."
[TP–26A–BC–E,TP–26A–BC–F, or TP–26B–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To pay for that call, press ONE now.
To refuse the charges, press TWO."
[TP–29,TP–29A–BC–E,TP–29A–BC–F]

ON{DTMF response, calling party went on–hook, billed party went on–hook}
next_state [S3440 – Analyze DTMF reponse]

Call flow for third number billing calls (continued)

S3486 – [DTMF error reprompt (LO)]

IF {Locality prompt available for DN}

IF {CDB_NPL_MODE = LOC_FIRST}

"Your response was not valid.
We have a request to bill a call to your number. The call is being placed to another number from: (calling locality) by (prerecorded name)."
[TP–20,TP–20A–BC–E, TP–20A–BC–F, or TP–20B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To pay for that call, press one.
To refuse the charges, hang up now."
[TP–26A–BC–E,TP–26A–BC–F, or TP–26B–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To pay for that call, press ONE now.
To refuse the charges, press TWO."
[TP–29,TP–29A–BC–E,TP–29A–BC–F]

IF {CDB_NPL_MODE = NAME_FIRST}

"Your response was not valid.
We have a request to bill a call to your number. The call is being placed to another number by: (prerecorded name) from (calling locality)."
[TP–6,TP–6A–BC–E, TP–6A–BC–F, or TP–6B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To pay for that call, press one.
To refuse the charges, hang up now."
[TP–26A–BC–E,TP–26A–BC–F, or TP–26B–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To pay for that call, press ONE now.
To refuse the charges, press TWO."
[TP–29,TP–29A–BC–E,TP–29A–BC–F]

Call flow for third number billing calls (continued)

S3486 (cont'd)

IF {CDB_NPL_MODE = LOC_ONLY}

"Your response was not valid.
We have a request to bill a call to your number. The call is being placed to another number from: (calling locality)."
[TP–20,TP–20A–BC–E,TP–20A–BC–F, or TP–20B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To pay for that call, press one.
To refuse the charges, hang up now."
[TP–26A–BC–E,TP–26A–BC–F, or TP–26B–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To pay for that call, press ONE now.
To refuse the charges, press TWO."
[TP–29,TP–29A–BC–E,TP–29A–BC–F]

Otherwise {No Prompt Available}

IF {CDB_NPL_MODE = LOC_FIRST OR CDB_NPL_MODE = NAME_FIRST}

"Your response was not valid.
We have a request to bill a call to your number. The call is being placed to another number: (Prerecorded Name)."
[TP–17,TP–17A–BC–E,TP–17A–BC–F, or TP–17B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To pay for that call, press one.
To refuse the charges, hang up now."
[TP–26A–BC–E,TP–26A–BC–F, or TP–26B–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To pay for that call, press ONE now.
To refuse the charges, press TWO."
[TP–29,TP–29A–BC–E,TP–29A–BC–F]

Call flow for third number billing calls (continued)

S3486 (cont'd)

IF (CDB_NPL_MODE = LOC_ONLY}

"Your response was not valid.
We have a request to bill a call to your number. The call is being placed to another number."
[TP–17, TP–17A–BC–E,TP–17A–BC–F, or TP–17B–BC–F]

IF {PLAY_PRESS2_OR_SAYNO = NO}

"To pay for that call, press one.
To refuse the charges, hang up now."
[TP–26A–BC–E,TP–26A–BC–F, or TP–26B–BC–F]

Otherwise {PLAY_PRESS2_OR_SAYNO = YES}

"To pay for that call, press ONE now.
To refuse the charges, press TWO."
[TP–29,TP–29A–BC–E,TP–29A–BC–F]

ON{DTMF response, calling party went on–hook, billed party went on–hook}
next_state [S3440 – Analyze DTMF response]

S3490 – [Route to operator on too many attempts]

ON{No response (BACKEND_OPERATOR_REQ_T_O) within 3.0 sec}
Disable talk path of billed party.
Enable listen path of calling party.

"Please hold for operator assistance."
[OT–18,OT–18A–BC–E, or OT–18A–BC–F]

Request call to be sent to operator.
Release resources.

ON{Billed party went on hook}
Release billed party.
Enable listen path.

"The charges for this call have been refused."
[OT–37,OT–37A–BC–E, OT–37A–BC–F, or OT–37B–BC–F]

next_state [S3650 – billing denied action 5]

Call flow for third number billing calls (continued)

S3490 (cont'd)

ON{Calling party went on hook}
Release calling party.

"(On–hook click) The person placing the call has hung up. You will not be billed for this call. Please hang up now."
[OT–13,OT–13A–BC–E,OT–13B–BC–E, or OT–13A–BC–F]

Abort the call.
Release TABS resources.

S34B2 – [Release billed party]

Release billed party.
Enable listen path

If {PLAY_BILLED_ONHOOK = NO}

"The charges for this call have not been accepted."
[OT–34,OT–34A–BC–E, or OT–34A–BC–F]

next_state [S3650 – billing denied action 5]

Otherwise

"We are unable to get billing acceptance."
[OT–48, OT–48A–E, OT–48A–F]

Call flow for third number billing calls (continued)

S3500 – [Collect 10 digits]

IF {front end language undefined}
CALL [S5300 – Language selection]

"Please enter the area code and number to which you want your call billed."
[OT–10,OT–10A–BC–E,OT–10B–BC–E, or OT–10A–BC–F]

ON{Subscriber entered NPA NXX XXXX}
next_state [S3100 – Verify billing option]

ON{Subscriber does not respond (AFT_PROMPT) within 5.0 seconds}

IF {DIALING_NO_RESPONSE limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S3580 – Too Many Errors]

Otherwise
next_state [S3570 – No Response Prompt]

ON{Subscriber enters incomplete pattern}
next_state [S3520 – Incomplete Response]

ON{Subscriber enters invalid pattern}
next_state [S3530 – Invalid Response]

ON{Subscriber enters "0"}
next_state [S6000 – route–to–operator]

S3520 – [Incomplete Response]

"The number as entered is incomplete."
[OT–31,OT–31A–BC–E, OT–31B–BC–E,OT–31A–BC–F, or OT–31B–BC–F]

IF {DIALING_FORMAT_ERR limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S3580 – Too Many Errors]

Otherwise
next_state [S3560 – Reenter 10–Digit Number]

Call flow for third number billing calls (continued)

S3530 – [Invalid Response]

"The number as entered is not valid."
[OT–11,OT–11A–BC–E, OT–11B–BC–E,OT–11A–BC–F, or OT–11B–BC–F]

IF {DIALING_FORMAT_ERR limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S3580 – Too Many Errors]

Otherwise
next_state [S3560 – Reenter 10–Digit Number]

S3540 – [Collect not allowed]

"The number as entered is not valid."
[OT–11,OT–11A–BC–E, OT–11B–BC–E,OT–11A–BC–F, or OT–11B–BC–F]

IF {DIALING_FORMAT_ERR limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S3580 – Too Many Errors]

Otherwise
next_state [S3550 – Collect 10 digits]

S3550 – [Collect 10 digits]

"Please enter the area code and number to which you want your call billed."
[OT–10,OT–10A–BC–E,OT–10B–BC–E, or OT–10A–BC–F]

ON{Subscriber enters NPA NXX XXXX}
next_state [S3100 – Verify billing option]

ON{Subscriber does not respond (AFT_ERR_PROMPT) within 3.0 seconds}
IF {DIALING_NO_RESPONSE limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S3580 – Too Many Errors]

Call flow for third number billing calls (continued)

S3550 (cont'd)

Otherwise
next_state [S3570 – No Response Prompt]

ON{Subscriber enters incomplete pattern}
next_state [S3520 – Incomplete Response]

ON{Subscriber enters invalid pattern}
next_state [S3530 – Invalid Response]

ON{Subscriber enters "0"}
next_state [S6000 – route–to–operator]

S3560 – [Reenter 10–Digit Number]

"Please enter the area code and number again."
[TP–2,TP–2A–BC–E, TP–2B–BC–E, or TP–2A–BC–F]

ON{Subscriber enters NPA NXX XXXX}
next_state [S3100 – Verify billing option]

ON{Subscriber does not respond (AFT_ERR_PROMPT)
within 3.0 seconds}
IF {DIALING_NO_RESPONSE limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S3580 – Too Many Errors]

Otherwise
next_state [S3570 – No Response Prompt]

ON{Subscriber enters incomplete pattern}
next_state [S3520 – Incomplete Response]

ON{Subscriber enters other patterns}
next_state [S3530 – Invalid Response]

S3570 – [No Response Prompt]

"Please enter the area code and number now."
[TP–1,TP–1A–BC–E, TP–1B–BC–E, TP–1B–BC–E,
TP–1A–BC–F, or TP–1B–BC–F]

ON{Subscriber enters NPA NXX XXXX}
next_state [S3100 – Verify billing option]

ON{Subscriber does not respond (CC_ERR_PROMPT)
within 5.0 seconds}

Call flow for third number billing calls (continued)

S3570 (cont'd)

IF {DIALING_NO_RESPONSE limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S3580 – Too Many Errors]

Otherwise
next_state [S3570 – No Response Prompt]

ON{Subscriber enters incomplete pattern}
next_state [S3520 – Incomplete Response]

ON{Subscriber enters other patterns}
next_state [S3530 – Invalid Response]

S3580 – [Too Many Errors]

"For operator assistance, press zero."
[OT–33,OT–33A–BC–E, OT–33B–BC–E,OT–33C–BC–E,
or OT–33A–BC–F]

ON{Subscriber enters "0"}
next_state [S6000 – Route to Operator]

ON{no response (REQ_OP_ON_ERR) within 3.0 seconds}

"Please hang up and try your call again."
[OT–14,OT–14A–BC–E, or OT–14A–BC–F]

Abort call.
Release TABS resources.

ON{calling party went on hook}
Abort call.
Release TABS resources.

S3600 – [Release Billed and Float Call]

Release billed party.
Enable listen path of calling party.

next_state [S3612 – MDS offer of service]

Call flow for third number billing calls (continued)

S3610 – [billing denied action 1]

IF {Handoff call}
next_state [S3612 – Handoff billing denied action 1]

IF {BILLING_DENIED_ACTION = REJECT}

"Please hang up and try your call again."
[OT–24,OT–24A–BC–E, or OT–24A–BC–F]

Abort the call.
Release TABS resources.

IF {BILLING_DENIED_ACTION = OPERATOR}
next_state [S6100 – Route to operator]

IF {BILLING_DENIED_ACTION = ALTBILL}
IF {THIRD_NUM_ALT_BILL limit (1) attained}

"Please hang up and try your call again."
[OT–24,OT–24A–BC–E, or OT–24A–BC–F]

Abort the call.
Release TABS resources.

Otherwise
next_state [S1281 – Select at Prompt 2]

S3612 – [Handoff – billing denied action 1]

IF {HDO_BILLING_FAILED_ACTION = REJECT}

"Please hang up and try your call again."
[OT–24,OT–24A–BC–E, or OT–24A–BC–F]

Abort the call.
Release TABS resources.

IF {HDO_BILLING_FAILED_ACTION = OPERATOR}
next_state [S6100 – Route to operator]

Call flow for third number billing calls (continued)

S3620 – [billing denied action 2]

IF {Handoff call}
next_state [S3622 – Handoff billing denied action 2]

IF {BILLING_DENIED_ACTION = REJECT}

"Please check the number and try your call again."
[OT–26,OT–26A–BC–E, or OT–26A–BC–F]

Abort the call.
Release TABS resources.

IF {BILLING_DENIED_ACTION = OPERATOR}
next_state [S6100 – Route to operator]

IF {BILLING_DENIED_ACTION = ALTBILL}
IF {THIRD_NUM_ALT_BILL limit (1) attained}

"Please check the number and try your call again."
[OT–26,OT–26A–BC–E, or OT–26A–BC–F]

Abort the call.
Release TABS resources.

Otherwise
next_state [S1281 – Select at Prompt 2]

S3622 – [Handoff – billing denied action 2]

IF {HDO_BILLING_FAILED_ACTION = REJECT}

"Please check the number and try your call again."
[OT–26,OT–26A–BC–E, or OT–26A–BC–F]

Abort the call.
Release TABS resources.

IF {HDO_BILLING_FAILED_ACTION = OPERATOR}
next_state [S6100 – Route to operator]

Call flow for third number billing calls (continued)

S3630 – [billing denied action 3]

IF {Handoff call}
next_state [S3632 – Handoff billing denied action 3]

IF {BILLING_DENIED_ACTION = REJECT}

"Please hang up and try your call later."
[OT–27,OT–27A–BC–E, or OT–27A–BC–F]

Abort the call.
Release TABS resources.

IF {BILLING_DENIED_ACTION = OPERATOR}
next_state [S6100 – Route to operator]

IF {BILLING_DENIED_ACTION = ALTBILL}
IF {THIRD_NUM_ALT_BILL limit (1) attained}

"Please hang up and try your call later."
[OT–27,OT–27A–BC–E, or OT–27A–BC–F]

Abort the call.
Release TABS resources.

Otherwise
next_state [S1281 – Select at Prompt 2]

S3632 – [Handoff – billing denied action 3]

IF {HDO_BILLING_FAILED_ACTION = REJECT}

"Please hang up and try your call later."
[OT–27,OT–27A–BC–E, or OT–27A–BC–F]

Abort the call.
Release TABS resources.

IF {HDO_BILLING_FAILED_ACTION = OPERATOR}
next_state [S6100 – Route to operator]

Call flow for third number billing calls (continued)

S3640 – [billing denied action 4]

IF {Handoff call}
next_state [S3642 – Handoff billing denied action 4]

IF {BILLING_DENIED_ACTION = REJECT}

"Please hang up and try your call again."
[OT–14,OT–14A–BC–E, or OT–14A–BC–F]

Abort the call.
Release TABS resources.

IF {BILLING_DENIED_ACTION = OPERATOR}
next_state [S6100 – Route to operator]

IF {BILLING_DENIED_ACTION = ALTBILL}
IF {THIRD_NUM_ALT_BILL limit (1) attained}

"Please hang up and try your call again."
[OT–14,OT–14A–BC–E, or OT–14A–BC–F]

Abort the call.
Release TABS resources.

Otherwise
next_state [S1281 – Select at Prompt 2]

S3642 – [Handoff – billing denied action 4]

IF {HDO_BILLING_FAILED_ACTION = REJECT}

"Please hang up and try your call again."
[OT–14,OT–14A–BC–E, or OT–14A–BC–F]

Abort the call.
Release TABS resources.

IF {HDO_BILLING_FAILED_ACTION = OPERATOR}
next_state [S6100 – Route to operator]

Call flow for third number billing calls (continued)

S3650 – [billing denied action 5]

IF {Handoff call}
next_state [S3652 – Handoff billing denied action 5]

IF {BILLING_DENIED_ACTION = REJECT}

"Please hang up now."
[OT–22,OT–22A–BC–E, or OT–22A–BC–F]

Abort the call.
Release TABS resources.

IF {BILLING_DENIED_ACTION = OPERATOR}
next_state [S6100 – Route to operator]

IF {BILLING_DENIED_ACTION = ALTBILL}
IF {THIRD_NUM_ALT_BILL limit (1) attained}

"Please hang up now."
[OT–22,OT–22A–BC–E, or OT–22A–BC–F]

Abort the call.
Release TABS resources.

Otherwise
next_state [S1281 – Select at Prompt 2]

S3652 – [Handoff – billing denied action 5]

IF {HDO_BILLING_FAILED_ACTION = REJECT}

"Please hang up now."
[OT–22,OT–22A–BC–E, or OT–22A–BC–F]

Abort the call.
Release TABS resources.

IF {HDO_BILLING_FAILED_ACTION = OPERATOR}
next_state [S6100 – Route to operator]

Call flow for calling card calls

S4000 – [Calling Card]

IF {A validation query has been sent}
next_state [S4200 – Wait for database response]

Otherwise
next_state [S4100 – Query CCV]

S4100 – [Query CCV]

SEND {CCV validation}
next_state [S4200 – Wait for database response]

S4200 – [Wait for database response]

ON{database response arrived}
next_state [S4300 – Database Response analysis]

S4300 – [Database Response analysis]

IF {Verification not needed} ;
next_state [SB600 – MDS offer of service] ;

IF {Manual Verification needed}
next_state [S6000 – Route to Operator] ;

IF {Verbal acceptance required}
next_state [S4510 – Retry]

IF {Billing Denied}
IF {Query Result = Threshold Exceeded}

```
"The card number as entered
 is not valid."
[CC–4,CC–4A–BC–E, or CC–4A–BC–F]
```

next_state [S4301 – Check retry]

IF {Query Result = Non–Payment}

```
"Your card cannot be used at this time."
[CC–5, CC–5A–BC–E or CC–5A–BC–F]
```

next_state [S4301 – Check retry]

Call flow for calling card calls (continued)

S4300 (cont'd)

IF {Query Result = Service Restriction}

"Your card cannot be used to place this call due to selected calling area restrictions."
[CC–6,CC–6A–BC–E, or CC–6A–BC–F]

next_state [S4301 – Check retry]

IF {Query Result = Service Denial – CSDI–3}

"Your call cannot be billed to the card number entered."
[CC–7,CC–7A–BC–E, or CC–7A–BC–F]

next_state [S4301 – Check retry]

Otherwise
next_state [S4510 – Retry]

next_state [SB600 – MDS offer of service]
IF {CCV_QUERY_FAIL_ACC_BILL = NO}

IF {No database response}
IF {CCV_QUERY_FAIL_ACC_BILL = YES}
next_state [SB600 – MDS offer of service]

IF {CCV_QUERY_FAIL_ACC_BILL = NO}

"The card number as entered is not valid. Please hang up and dial zero plus the number you are calling."
[CC–2,CC–2A–BC–E, or CC–2A–BC–F]

Abort the call.
Release TABS resources.

Call flow for calling card calls (continued)

S4301 – [Retry]

IF {CALLING_CARD_RETRY limit (1) attained}
next_state [S4550 – Operator?]

Otherwise

"Please choose another billing option."
[OT–54,OT–54A–BC–E, or OT–54A–BC–F]

next_state [S1300 – Retry billing selection menu]

S4510 – [Retry]

IF {CALLING_CARD_RETRY limit (1) attained}

IF {Commercial Credit Card entered}
next_state [S4616 – Credit Card Billing Denied]

IF {CC_RETRY_ACTION = OPERATOR}
next_state [S6000 – Route to operator]
Otherwise

"The card number as entered is not valid.
Please hang up and dial zero plus the
number you are calling."
[CC–2,CC–2A–BC–E, or CC–2A–BC–F]

Abort the call.
Release TABS resources.

Otherwise
next_state [S4520 – Retry Prompt]

S4520 – [Retry Prompt]

"The card number as entered is not valid.
Please enter your card number again."
[CC–1,CC–1A–BC–E, or CC–1A–BC–F]

next_state [S4520.A – Analyze Retry Input]

Call flow for calling card calls (continued)

S4520.A– [Analyze Retry Input]

ON{Subscriber does not respond (AFT_ERR_PROMPT)
within 3.0 seconds}
next_state [S4530 – No Response]

ON{Subscriber enters NPA NXX XXXX NXXX, or
RAO 0/1 XXX XXX NXXX}
next_state [S4000 – Calling Card]

ON{Subscriber enters NXXX,
followed by (AFT_4DIGITS_PIN) 2.0 second timeout}
next_state [S4570 – PIN entered]

ON{Subscriber enters CXXXX}
next_state{125B – Error/Extended CCITT Check}

ON{Subscriber enters CCITT}
next_state [S4520.B – Continue Collecting Digits]

ON{Subscriber enters Commercial Credit Card}
next_state [S4600 – Commercial Credit Card Check]

ON{Subscriber entered “17”}
next_state [S4525 – English Handling]

ON{Subscriber entered “19”}
next_state [S4526 – French Handling]

ON{subscriber enters invalid digit format}
next_state [S4510 – Retry]

S4520.B– [Continue Collecting Digits]

Continue collecting digits

ON{Subscriber enters digits}
next_state [S4100 – Query CCV]

ON{Subscriber does not respond (INTERDIGIT)
within 5.0 seconds}
next_state [S4100 – Query CCV]

ON{subscriber enters invalid digit format}
next_state [S4510 – Retry]

Call flow for calling card calls (continued)

S4525 – [English Handling]

IF {Front End Language already defined}
next_state [S4527 – Language Already Defined]

Otherwise
SET {Front End Language = English}
next_state [S4528 – Check for Calling Card after language]

S4526 – [French Handling]

IF {Front End Language already defined}
next_state [S4527 – Language Already Defined]

Otherwise
SET {Front End Language = French}
next_state [S4528 – Check for Calling Card after language]

S4527 – [Language Already Defined]

"The number as entered is incorrect." [SS8–UNI]

IF {CALLING_CARD_RETRY limit (1) attained}
next_state [S4550 – Retry Limit Attained]

Otherwise

"Please enter your card number now." [CC–3,CC–3A–BC–E, or CC–3A–BC–F]

ON {Subscriber enters input}
next_state [S4520.A – Analyze Retry Input]

ON {No response (AFT_ERR_PROMPT) within 3.0 seconds}
next_state [S4530 – Play Bong Tone]

ON {Subscriber enters invalid digit format}
next_state [S4510 – Retry]

Call flow for calling card calls (continued)

S4528 – [Check for Calling Card after Langauge]

Continue Collecting Digits

ON{Subscriber enters input}
next_state [S4520.A – Analyze Retry Input]

ON{No response (AFT_ERR_PROMPT) within 3.0 seconds}
next_state [S4530 – Play Bong Tone]

ON{Subscriber enters invalid digit format}
next_state [S4510 – Retry]

S4530 – [No Response]

(Bong Tone) [SS1]
next_state [S4530.A – Analyze Input]

S4530.A– [Analyze Input]

ON{Subscriber does not respond (BONG_CC_ALTBILL)
within 3.0 seconds}
next_state [S4540 – No Response Twice]

ON{Subscriber enters NPA NXX XXXX NXXX, or
RAO 0/1 XXX XXX NXXX}
next_state [S4000 – Calling Card]

ON{Subscriber enters NXXX,
followed by (AFT_4DIGITS_PIN) 2.0 second timeout}
next_state [S4570 – PIN entered]

ON{Subscriber enters CXXXX}
next_state [S125B – Error/Extended CCITT Check]

Call flow for calling card calls (continued)

S4530.A (cont'd)

ON{Subscriber enters CCITT}
next_state [S4520.B – Continue Collecting Digits]

ON{Subscriber enters Commercial Credit Card}
next_state [S4600 – Commercial Credit Card Check]

ON{Subscriber entered "17"}
next_state [S4535 – English Handling]

ON{Subscriber entered "19"}
next_state [S4536 – French Handling]

ON{subscriber enters invalid digit format}
next_state [S4510 – Retry]

S4535 – [English Handling]

IF {Front End Language already defined}
next_state [S4537 – Language Already Defined]

Otherwise
SET {Front End Language = English}
next_state [S4538 – Check for Calling Card after language]

S4536 – [French Handling]

IF {Front End Language already defined}
next_state [S4537 – Language Already Defined]

Otherwise
SET {Front End Language = French}
next_state [S4538 – Check for Calling Card after language]

S4537 – [Language Already Defined]

"The number as entered is incorrect."
[SS–8,SS–8A–BC–E,SS–8B–BC–E, SS–8C–BC–E,
or SS–8A–BC–F]

IF {CALLING_CARD_RETRY limit (1) attained}
next_state [S4550 – Retry Limit Attained]

Otherwise
next_state [S4540 – Retry for Calling Card]

Call flow for calling card calls (continued)

S4538 – [Check for Calling Card after Langauge]

Continue Collecting Digits

ON{Subscriber enters input}
next_state [S4530.A – Analyze Retry Input]

ON{No response (AFT_ERR_PROMPT) within 3.0 seconds}
next_state [S4540 – Reprompt on No Response Twice]

ON{Subscriber enters invalid digit format}
next_state [S4510 – Retry]

S4540 – [No Response Twice]

"Please enter your card number now."
[CC–3,CC–3A–BC–E, or CC–3A–BC–F]

next_state [S4540.A – Analyze Input]

S4540.A– [Analyze Input]

ON{subscriber does not response (CC_ERR_PROMPT)
within 5.0 seconds}
next_state [S4550 – Retry Limit Attained]

ON{Subscriber enters NPA NXX XXXX NXXX, or
RAO 0/1 XXX XXX NXXX}
next_state [S4000 – Calling Card]

ON{Subscriber enters NXXX,
followed by (AFT_4DIGITS_PIN) 2.0 second timeout}
next_state [S4570 – PIN entered]

ON{Subscriber enters Commercial Credit Card}
next_state [S4600 – Commercial Credit Card Check]

ON{Subscriber enters CCITT}
next_state [S4520.B – Continue Collecting Digits]

ON{Subscriber enters CXXXX}
next_state [S125B – Error/Extended CCITT Check]

ON{Subscriber entered "17"}
next_state [S4545 – English Handling]

ON{Subscriber entered "19"}
next_state [S4546 – French Handling]

Call flow for calling card calls (continued)

S4540.A (cont'd)

ON{subscriber enters invalid digit format}
next_state [S4510 – Retry]

S4545 – [English Handling]

IF {Front End Language already defined}
next_state [S4547 – Language Already Defined]
Otherwise
SET {Front End Language = English}
next_state [S4548 – Check for Calling Card after language]

S4546 – [French Handling]

IF {Front End Language already defined}
next_state [S4547 – Language Already Defined]
Otherwise
SET {Front End Language = French}
next_state [S4548 – Check for Calling Card after language]

S4547 – [Language Already Defined]

"The number as entered is incorrect."
[SS–8,SS–8A–BC–E,SS–8B–BC–E, SS–8C–BC–E,
or SS–8A–BC–F]

IF {CALLING_CARD_RETRY limit (1) attained}
next_state [S4550 – Retry Limit Attained]

Otherwise
next_state [S4540 – Retry for Calling Card]

S4548 – [Check for Calling Card after Langauge]

Continue Collecting Digits

ON{Subscriber enters input}
next_state [S4540.A – Analyze Retry Input]

ON{No response (AFT_ERR_PROMPT) within 3.0 seconds}
next_state [S4550 – Retry Limit Attained]

ON{Subscriber enters invalid digit format}
next_state [S4510 – Retry]

Call flow for calling card calls (continued)

S4550 – [Retry Limit Attained]

IF {CC_RETRY_ACTION = OPERATOR}
next_state [S6000 – Route to operator]

Otherwise

"Please hang up and dial zero plus the number you are calling."
[OT–19,OT–19A–BC–E, or OT–19A–BC–F]

Abort the call.
Release TABS resources.

S4570 – [PIN entered]

IF {Called number is DA or overseas number}
next_state [S4590 – Continue digit collection with no CCV sent]

Otherwise
SEND {CCV query}
next_state [S45A0 – Continue digit collection with CCV sent]

S4590 – [Continue digit collection with no CCV sent]

Collect more digits

ON{No more digits collected
(CC_ERR_PROMPT/AFT_ERR_PROMPT)
within 5.0/3.0 seconds,
OR
"#" entered}
next_state [S4510 – Retry]

ON{Subscriber enters NPA NXX XXXX NXXX, or
RAO 0/1 XXX XXX NXXX}
next_state [S4000 – Calling Card]

ON{Subscriber enters NXXX,
followed by (AFT_4DIGITS_PIN) 2.0 second timeout}
next_state [S4510 – Retry]

ON{Subscriber enters CXXXX}
next_state [S125B – Error/Extended CCITT Check]

ON{Subscriber enters CCITT}
next_state [S4520.B – Continue Collecting Digits]

ON{Subscriber enters Commercial Credit Card}
next_state [S4600 – Commercial Credit Card Check]

Call flow for calling card calls (continued)

S4590 (cont'd)

ON{subscriber enters invalid pattern}
next_state [S4510 – Retry]

S45A0 – [Continue digit collection with CCV sent]

Collect more digits

ON{No more digits collected
(CC_ERR_PROMPT/AFT_ERR_PROMPT)
within 5.0/3.0 seconds,
OR
"#" entered}
next_state [S4200 – Wait for database response]

ON{Subscriber enters NPA NXX XXXX NXXX, or
RAO 0/1 XXX XXX NXXX}
next_state [S4000 – Calling Card]

ON{Subscriber enters NXXX,
followed by (AFT_4DIGITS_PIN) 2.0 second timeout}
next_state [S4200 – Wait for database response]

ON{Subscriber enters CXXXX}
next_state [S125B – Error/Extended CCITT Check]

ON{Subscriber enters CCITT}
next_state [S4520.B – Continue Collecting Digits]

ON{Subscriber enters Commercial Credit Card}
next_state [S4600 – Commercial Credit Card Check]

ON{Subscriber enters invalid pattern}
next_state [S4510 – Retry]

Call flow for commercial credit cards

S4600 – [Commercial Credit Card Handling]

Check ***Credit Card SDM table***

IF {A complete Credit Card was entered}
SEND {CCV validation}
next_state [S4100 – Query CCV]

IF {A Credit Card was entered without a PIN}

```
"Please enter your personal identification
 number now."
[CC-9A,CC-9A-BC-E,CC-9A-BC-F]
```

Collect the PIN digits
next_state [S4601 – Check PIN digits]

S4601 – [Check PIN digits]

IF {Valid PIN digits were entered}
SEND {CCV validation}
next_state [S4100 – Query CCV]

Otherwise
next_state [S1254 – Commercial Credit Card and CCITT Extended Calling Card Check]

S4616 – [Credit Card Billing Denied]

Play the referral prompt for the Credit Card type denying billing as defined in the ***Credit Card SDM table***

```
"We are unable to complete your call, please
 contact your credit card issuer."
[REF-0A,REF-0A-BC-E,REF-0A-BC-F]
```

Abort the Call.
Release TABS resources.

Call flow for front end language selection

S5000 – [Front End Language selection]

IF {First time requesting Front End Language}
next_state [S5010 – Front End Language Request]

Otherwise
IF {Service defined}
next_state [S5010 – Front End Language Request]
Otherwise
next_state [S5020 – Front End Language request (detailed)]

S5010 – [Front End Language Request]

IF { FLS }

```
"For service in English, press one seven.
 Pour le service en francais, appuyez sur un,
 neuf."
[LS–1A–BC–E, LS–1B–BC–E, LS–1C–BC–E,
 LS–1D–1D–E,LS–1E–BC–E,LS–1F–BC–E,
 LS–1A–BC–F, LS–1B–BC–F, LS–1C–BC–F,
 LS–1D–BC–F,LS–1E–BC–F, or LS–1F–BC–F]
```

IF { ALS }

```
"For service in English, please hold.
 Pour le service en francais, appuyez sur un,
 neuf."
[LS–7A–BC–E, LS–7B–BC–E,LS–7A–BC–F,LS–7B–BC–F,
 or LS–7C–BC–F]
```

ON{digits received}
next_state [S5030 – Service Check]

ON{No subscriber response within ALS_TIMEOUT (2.0 seconds)}
IF { ALS }
SET {Front End Language to default language}
next_state [S5050 – Return]
Otherwise
next_state [S5015 – Check Retry Count]

ON{Hookflash}
next_state [S6000 – Route to Operator]

Call flow for front end language selection (continued)

S5015 – [Check Retry Count (service defined)]

IF {CALLING_LANG_RETRY limit (1) attained}
next_state [S6000 – Route to Operator]

Otherwise
next_state [S5020 – Front End Language request (detailed)]

S5020 – [Front End Language Request (detailed)]

IF { FLS }

"For service in English, press one seven now.
Si vous desirez obtenir le service en
francais, appuyez sur un, neuf maintenant.
[LS–2A–BC–E,LS–2B–BC–E, LS–2C–BC–E,
LS–2D–BC–E,LS–2E–BC–E,LS–2F–BC–E,LS–2A–BC–F,
LS–2B–BC–F,LS–2C–BC–F,LS–2D–BC–F,LS–2E–BC–F,
or LS–2F–BC–F]

IF { ALS }

"For service in English, please hold.
Pour le service en francais, appuyez sur un,
neuf."
[LS–8A–BC–E, LS–8A–BC–F,LS–8B–BC–F,
or LS–8C–BC–F]

ON{digits received}
next_state [S5030 – Service Check]

ON{No subscriber response within ALS_TIMEOUT (2.0 seconds)}
IF { ALS }
SET {Front End Language = default language)
next_state [S5050 – Return]
Otherwise
next_state [S5015 – Check Retry Count]

ON{Hookflash}
next_state [S6000 – Route to Operator]

Call flow for front end language selection (continued)

S5030 – [Service Selection Check]

IF {Service defined}
next_state [S5040 – FE Language Digit Analysis After SS]

Otherwise
ON{Subscriber entered “11”, “12”, “*”, NPA NXX XXXX,
NPA NXX XXXX NXXX, NXXX, RAO 0/1XX XXXX NXXX}
next_state [S1251 – Restricted billing and overseas check]

ON {Subscriber entered NPA NXX XXXX 17 or
NPA NXX XXXX 19}
next_state [S5300 – Third Party # plus Language Handling]

ON {Subscriber entered CCITT or Commercial Credit Card}
next_state [S1210 – CCITT Handling]

ON {Subscriber entered CXXX}
next_state[S125B – Error/Extended CCITT Check]

ON {Subscriber entered “17”}
next_state [S1270 – DTMF recognized 17]

ON {Subscriber entered “19”}
next_state [S1271 – DTMF recognized 19]

ON {Subscriber entered “0”}
next_state [S6000 – Route to Operator]

Otherwise
IF {CALLING_LANG_RETRY limit (1) attained}
next_state [S6000 – Route to Operator]

Otherwise
IF {Subscriber entered NXX XXXX}
next_state [S1251 – Restricted billing
and overseas check]
Otherwise
next_state [S1258 – Incorrect Option]

Call flow for front end language selection (continued)

S5040 – [FE Language Digit Analysis After SS]

ON{Subscriber entered “0”}
    next_state [S6000 – Route to operator]

ON{Subscriber entered “17” or “19”}
    SET {Front End language accordingly)
    next_state [S5050 – Return]

ON {Subscriber entered NPA NXX XXXX}
    IF {Service selected by ’12’}
        next_state [S1251.A – Billed # equals Called # Check]
    Otherwise
        next_state [S5015 – Check Retry Count]

ON{Subscriber entered NPA NXX XXXX 17 or NPA NXX XXXX 19}
    IF {Service selected by ’12’}
        next_state [S5300 – Third Party # plus Language Handling]
    Otherwise
        next_state [S5015 – Check Retry Count]

Otherwise
    next_state [S5015 – Check Retry Count]

S5050 – [Return]

RETURN

S5100 – [Back End Language Selection for Collect Service]

IF {Back End Language follows Front End Language}
    SET {Back End Language = Front End Language)
    next_state [S5150 – return]
Otherwise
    next_state [S5110 – Back End Language Prompt]

S5110 – [Back End Language Prompt]

IF { FLS }

“The system can address the party you are calling in English or French. For English, press one seven for French, press one nine.”
[LS–3A–BC–E,LS–3B–BC–E,LS–3C–BC–E, LS–3D–BC–E, LS–3E–BC–E, LS–3A–BC–F, LS–3B–BC–F,LS–3C–BC–F, LS–3D–BC–F,LS–3E–BC–F, or LS–3F–BC–F]

Call flow for front end language selection (continued)

S5110 (cont'd)

IF { ALS }

"The system can address the party you are calling in English or French. For French, press one nine for English, please hold."
[LS–9A–BC–E,LS–9B–BC–E,LS–9C–BC–E, LS–9D–BC–E, LS–9E–BC–E, LS–9A–BC–F, LS–9B–BC–F,LS–9C–BC–F, LS–9D–BC–F,LS–9E–BC–F, or LS–9F–BC–F]

ON{digits received}
next_state [S5140 – Digit Analysis]

ON{No subscriber response within ALS_TIMEOUT (2.0 seconds)}
IF { ALS }
SET {Back End Language = Front End Language)
next_state [S5150 – Return]
Otherwise
next_state [S5115 – Check Retry Count]

ON{Hookflash}
next_state [S6000 – Route to Operator]

S5115 – [Check Retry Count]

IF {BILLED_LANG_RETRY limit (1) attained}
next_state [S6000 – Route to Operator]

Otherwise
next_state [S5120 – BE Language Selection (detailed)]

S5120 – [Back End Language Selection (detailed)]

IF { FLS }

"The system can address the party you are calling in English or French. For English, press one seven now for French, press one nine."
[LS–4A–BC–E,LS–4B–BC–E,LS–4C–BC–E, LS–4D–BC–E, LS–4A–BC–F, LS–4B–BC–F, LS–4C–BC–F, LS–4D–BC–F, LS–4E–BC–F, or LS–4F–BC–F]

Call flow for front end language selection (continued)

S5120 (cont'd)

IF { ALS }

"The system can address the party you are calling in English or French. For French, press one nine if you remain on the line, service will be in English."
[LS–10A–BC–E, LS–10B–BC–E, LS–10C–BC–E, LS–10D–BC–E, LS–10A–BC–F, LS–10B–BC–F, LS–10C–BC–F, LS–10D–BC–F, LS–10E–BC–F, or LS–10F–BC–F]

ON{digits received}
next_state [S5140 – Digit Analysis]

ON{No subscriber response within ALS_TIMEOUT = 2.0 seconds}
IF { ALS }
SET {Back End Language = Front End Language}
next_state [S5150 – Return]
Otherwise
next_state [S5115 – Check Retry Count]

ON{Hookflash}
next_state [S6000 – Route to Operator]

S5140 – [Digit Analysis]

ON{Subscriber entered "0"}
next_state [S6000 – Route to operator]

ON{Subscriber entered "17" or "19"}
SET {Back End Language accordingly)
next_state [S5150 – Return]

Otherwise
next_state [S5115 – Check Retry Count]

S5150 – [Return]

RETURN

S5200 – [Back End Language Selection for Third Party Service]

IF {Back End Language follows Front End Language}
SET {Back End Language = Front End Language)
next_state [S5250 – Return]

Otherwise
next_state [S5210 – Back End Language Prompt]

Call flow for front end language selection (continued)

S5210 – [Back End Language Prompt]

IF { FLS }

"Acceptance of the charges is required for this call. The system can address the party being billed in English or French. For English, press one seven for French, press one nine."
[LS–5A–BC–E,LS–5B–BC–E, LS–5C–BC–E, LS–5D–BC–E, LS–5A–BC–F, or LS–5B–BC–F]

IF { ALS }

"Acceptance of the charges is required for this call. The system can address the party being billed in English or French. For French, press one nine for English, please hold."
[LS–11A–BC–E,LS–11B–BC–E,LS–11C–BC–E, LS–11D–BC–E,LS–11A–BC–F, or LS–11B–BC–F]

ON{digits received}
next_state [S5240 – Digit Analysis]

ON{No subscriber response within ALS_TIMEOUT (2.0 seconds)}
IF { ALS }
SET {Back End Language = Front End Language)
next_state [S5250 – Return]
Otherwise
next_state [S5215 – Check Retry Count]

ON{Hookflash}
next_state [S6000 – Route to Operator]

S5215 – [Check Retry Count]

IF {BILLED_LANG_RETRY limit (1) attained}
next_state [S6000 – Route to Operator]

Otherwise
next_state [S5220 – BE Language Selection (detailed)]

Call flow for front end language selection (continued)

S5220 – [BE Language Selection (detailed)]

IF { FLS }

"Acceptance of the charges is required for this call. The system can address the party being billed in English or French. For English, press one seven now for French, press one nine."
[LS–6A–BC–E,LS–6B–BC–E,LS–6C–BC–E, LS–6D–BC–E,LS–6A–BC–F, or LS–6B–BC–F]

IF { ALS }

"Acceptance of the charges is required for this call. The system can address the party being billed in English or French. For French, press one nine now if you remain on the line, service will be in English."
[LS–12A–BC–E, LS–12A–BC–F, or LS–12B–BC–F]

ON{digits received}
next_state [S5240 – Digit Analysis]

ON{No subscriber response within ALS_TIMEOUT (2.0 seconds)}
IF { ALS }
SET {Back End Language = Front End Language)
next_state [S5250 – Return]
Otherwise
next_state [S5215 – Check Retry Count]

ON{Hookflash}
next_state [S6000 – Route to Operator]

S5240 – [Digit Analysis]

ON{Subscriber entered "0"}
next_state [S6000 – Route to operator]

ON{Subscriber entered "17" or "19"}
SET {Back End language accordingly)
next_state [S5250 – Return]

Otherwise
next_state [S5215 – Check Retry Count]

Call flow for front end language selection (continued)

S5250 – [Return]

RETURN

S5300 – [Special Handling for Third Party Number]

[Plus Language]

IF {Single Language System}
next_state [S5360 – Uni System, Third number plus language]

IF {Dual Language System}
next_state [S5302 – Bi System, Third number plus language]

S5302 – [Bi System, Third number plus language]

IF {Front End Language undefined}
next_state [S5310 – Bi System, Front End Language Handling]

IF {Front End Language defined}
next_state [S5350 – Bi System, Back End Language Handling]

S5310 – [Bi System, Front End Language Handling]

ON{subscriber entered “17” or “19”}
SET {Front End Language accordingly)
next_state [S5340 – Handle Third Number]

Otherwise
CALL [S5000 – Front End Language Selection]
next_state [S5340 – Handle Third Number]

S5340 – [Handle Third Number]

Extract Third Number
next_state [S1251.A – Billed # equals Called # Check]

S5350 – [Bi System, Back End Language Handling]

IF {Back End Language follows Front End Language}
SET {Back End Language = Front End Language)
next_state [S5340 – Handle Third Number]

Otherwise
ON {Subscriber entered “17” or “19”}
SET {Back End Language accordingly)
next_state [S5340 – Handle Third Number]

Otherwise
CALL [S5200 – Back End Language Selection (Third Number)]
next_state [S5340 – Handle Third Number]

Call flow for front end language selection (continued)

S5360 – [Uni System, Third number plus language]

ON{Subscriber entered “17” or “19”}

IF {Ignore Language after SS (LANG_AFTER_SS = Ignore)}
next_state [S1251.A – Billed # equals Called # Check]

IF {Route to Operator if Language after SS (LANG_AFTER_SS=Operator)}
next_state [S6000 – Route to Operator]

IF {Notify caller if Lang after SS (LANG_AFTER_SS=Msg)}

```
“Language selection is not available
 in this area.  The call will continue
 in English.”
[OT–45A–BC–E or OT–45A–BC–F]
```

OR

```
“The number as entered is incorrect.”
 [SS–8,SS–8A–BC–E, SS–8B–BC–E,SS–8C–BC–E,
 or SS–8A–BC–F]
(OT45 is datafilled with SS–8)
```

IF {DIALING_FORMAT_ERR limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S12A0 – Too many failures]

Otherwise
next_state [S1251.A – Billed # equals Called # Check]

Call flow for operator transfer

S6000 – [Route to Operator – front end manual routing]

IF {Prison call with (USER INTERACTION Prison_No_Operator = YES) OR screening code match for Prison_No_Oper)}

```
"Please hang up and try your call again."
[OT-14, OT-14A-BC-E,  or OT-14A-BC-F]
```

Abort the call.
Release TABS resources.

Otherwise

```
"Please hold for operator assistance."
[OT-18,OT-18A-BC-E, or OT-18A-BC-F]
```

IF {Call is an AudioGram call}
Set front end language to the appropriate AudioGram language
Request call to be sent to operator.
Release resources.

S6100 – [Route to Operator – front end automatic route]

IF {Prison call with screening code match for Prison_No_Oper}

```
"Your call could not be completed.. Please
 hang up and try your call later."
[OT-5, OT-5A-BC-E, OT-5A-BC-F]
```

Abort the call.
Release TABS resources.

Otherwise

```
"For operator assistance,
 please remain on the line."
[OT-1, OT-1A-BC-E,  or  OT-1A-BC-F]
```

IF {Call is an AudioGram call}
Set front end language to the appropriate AudioGram language

ON{No response within [FRONTEND_OPERATOR_REQ_T_O = 0.0] seconds}

Request call to be sent to operator.
Release resources.

Call flow for operator transfer (continued)

ON{Calling party went on hook}

Abort the call.
Release resources.

S6300 – [Route to Operator – No Locality Prompt Avail/Prison Call]

IF {Prison call with screening code match for Prison_No_Oper}

"Your call could not be completed.. Please hang up and try your call later."
[OT–5, OT–5A–BC–E, OT–5A–BC–F]

Abort the call.
Release TABS resources.

Otherwise

"Please hold for operator assistance."
[OT–18,OT–18A–BC–E, or OT–18A–BC–F]

IF {Call is an AudioGram call}
Set front end language to the appropriate AudioGram language
Request call to be sent to operator.
Release resources.

S6400 – [Route to Operator – No Locality Prompt Avail/Non–Prison Call]

"Please hold for operator assistance."
[OT–18,OT–18A–BC–E, or OT–18A–BC–F]

IF {Call is an AudioGram call}
Set front end language to the appropriate AudioGram language
Request call to be sent to operator.
Release resources.

Call flow for operator transfer (continued)

S7000.0– [Route to Operator – back end manual routing]

ON{No response within [FRONTEND_OPERATOR_REQ_T_O = 0.0] seconds}

Disable talk path of billed party.
Enable listen path of calling party.

IF {Prison call with screening code match for Prison_No_Oper}

```
"Your call could not be completed.. Please
 hang up and try your call later."
[OT–5, OT–5A–BC–E, OT–5A–BC–F]
```

Abort the call.
Release TABS resources.

Otherwise

```
"Please hold for operator assistance."
[OT–18,OT–18A–BC–E, or OT–18A–BC–F]
```

IF {Call is an AudioGram call}
Set front end language to the appropriate AudioGram language
Request call to be sent to operator.
Release resources.

ON{Billed party went on hook}
Release billed party.
Enable listen path.

```
"The charges for this call have been refused.
 Please hang up now."
[OT–17,OT–17A–BC–E,OT–17A–BC–F,
 or OT–17B–BC–F]
```

Abort the Call.
Release resources.

Call flow for operator transfer (continued)

S7000.0 (cont'd)

ON{Calling party went on hook}
Release calling party.

"(On–hook click) The person placing the call has hung up. You will not be billed for this call. Please hang up now."
[OT–13,OT–13A–BC–E,OT–13B–BC–E, or OT–13A–BC–F]

Abort the call.
Release TABS resources.

S7000 – [Route to Operator – back end automatic route]

ON{No response within [BACKEND_OPERATOR_REQ_T_O = 3.0] seconds}
Disable talk path of billed party.
Enable listen path of calling party.

IF {Prison call with screening code match for Prison_No_Oper}

"Your call could not be completed.. Please hang up and try your call later."
[OT–5, OT–5A–BC–E, OT–5A–BC–F]

Abort the call.
Release TABS resources.

Otherwise

"Please hold for operator assistance."
[OT–18,OT–18A–BC–E, or OT–18A–BC–F]

IF {Call is an AudioGram call}
Set front end language to the appropriate AudioGram language
Request call to be sent to operator.
Release resources.

Call flow for operator transfer (continued)

S7000 (cont'd)

ON{Billed party went on hook}
Release billed party.
Enable listen path.

```
"The charges for this call have been refused.
 Please hang up now."
[OT–17,OT–17A–BC–E,OT–17A–BC–F,
 or OT–17B–BC–F]
```

Abort the Call.
Release resources.

ON{Calling party went on hook}
Release calling party.

```
"(On–hook click) The person placing the call
 has hung up. You will not be billed for this
 call. Please hang up now."
[OT–13,OT–13A–BC–E,OT–13B–BC–E,
 or OT–13A–BC–F]
```

Abort the call.
Release TABS resources.

SA000 – [Float Call Preparations]

Set OSS Action parameters

IF {Call is an AudioGram call}
next_state [SB900 – Transfer call to MDS via Operator Request]

Otherwise
next_state [SA100 – Float Call]

SA100 – [Float Call]

Request that the call be floated
Release TABS resources

Call flow for account code billing

SB000 – [Account Code Billing handling]

IF {Station Paid is a valid charge for this call and}
{Call is being placed from a non–public phone}

next_state [SB003 – Prompt for Account Code]

Otherwise
next_state [S1251.7.1 – Account Code Billing not allowed]

SB003 – [Collect Account Code number]

"Please enter a number for this call."
[AC–1A,AC–1A–BC–E, or AC–1A–BC–F]

ON{Subscriber entered a valid length account code}
SEND {Account Code Billing validation}
next_state [SB005 – Wait for database response]

ON{Subscriber entered a "0"}
next_state [S6000 – Route to Operator]

Otherwise
next_state [SB004 – Reprompt for Account Code]

SB004 – [Reprompt for Account Code]

ON{Account Code Billing retry count expired}
next_state [SB006 – Abort call]

Otherwise
IF {Account Code Billing Operating mode is ACPROMPT}

"The number you have entered is not a
valid length. Please try again."
[AC–2A,AC–2B,AC–2A–BC–E,AC–2B–BC–E,
AC–2A–BC–F,AC–2B–BC–F, or AC–2C–BC–F]

IF {Account Code Billing Operating mode is SSPROMPT}

"The number you have entered is not a
valid length Please press one–five and
try again."
[AC–3A,AC–3B, AC–3A–BC–E, AC–3B–BC–E,
AC–3A–BC–F,AC–3B–BC–F, or AC–3C–BC–F]

next_state [SB004.1 – Account Code entry]

Call flow for account code billing (continued)

SB004.1– [Account Code entry]

ON{Subscriber entered a valid length account code}
SEND {Account Code Billing validation}
next_state [SB005 – Wait for database response]

ON{Subscriber entered a "0"}
next_state [S6000 – Route to Operator]

Otherwise
next_state [SB004 – Reprompt for Account Code]

SB005 – [Wait for database response]

ON{database received}
next_state [SB005.1 – Analyze the database response]

SB005.1– [Analyze the database response]

IF {Account Code Billing accepted}

"Thank You."
[AC–4]

Complete the call.
Release the resources.

Otherwise
next_state [SB006 – Abort call]

SB006 – [Abort call]

"The number you have entered cannot be accepted.
Please hange up and check your instructions."
[AC–5A, AC–5A–BC–E, or AC–5A–BC–F]

Abort the call.
Release the resources.

Call flow for MDS offer of service

SB600 – [MDS Service Offer and AudioGram Checks]

Determine if call is an AudioGram call

IF {AudioGram has been selected}
Set front end language to an AudioGram language
next_state [SA000 – Float Call Preparations]

Otherwise
next_state [SB600.0 – Screen for MDS Offer of Service]

SB600.0– [Screen for MDS offer of service availability]

ON{MDS is available for this call}
Connect DMS RCVR circuit to monitor for subscriber actions
next_state [SB606 – Play MDS offer of service]

ON{MDS is NOT available for this call}
IF {Billing accepted via database acceptance}
IF {custom branding Thank You prompt available}
Play Thank You Custom Brand prompt [OT12_CB]

Otherwise

```
"Thank you."
[OT–12A–BC–E,OT–12B–BC–E,
 OT–12A–BC–F, or OT–12B–BC–F]
```

Complete the call.
Release TABS resources.

IF {Billing verbally accepted}

```
"The charges for your call have been
 accepted. Your call is now being
 placed."
```

Complete the call.
Release TABS resources.

SB605– [DMS or VSN based MDS offer of Service?]

IF {VSN based MDS Service Offer}
next_state [SB606 – Play MDS offer of service]

IF {DMS based MDS Service Offer}
Set MDS autolangs

IF {Billing accepted via database acceptance}
IF {custom branding Thank You prompt available}
Play Thank You Custom Brand prompt [OT12_CB]

Otherwise

"Thank you."
[OT–12A–BC–E,OT–12B–BC–E,
OT–12A–BC–F, or OT–12B–BC–F]

Complete the call.
Release TABS resources.

IF {Billing verbally accepted}

"The charges for your call have been accepted. Your call is now being placed."

Complete the call.
Release TABS resources.

SB606 – [Play MDS offer of Service]

IF {Calling party language is not known}

"Your call is proceeding. If the line is busy or no one answers, press star for [Message Delivery Service]".
[MD7]

Call flow for MDS offer of service (continued)

S8606 (cont'd)

IF {Calling party language is known}
IF {Billing acceptance was Auto or Operator accept}

"Your call is proceeding. If the line is busy or no one answers, press star for [Message Delivery Service]".
[MD1]

IF {Billing acceptance was verbal accept}

"Your call is proceeding. If the line is busy or no one answers, press star for [Message Delivery Service]".
[MD6]

ON{Hookflash or DTMF ZERO}
Release DMS RCVR circuit
Set MDS operator language
Request call to be sent to operator.
Release resources.

ON {DTMF STAR}
Release DMS RCVR circuit
Set MDS automated language
Request call to be sent to operator.
Release resources.

Otherwise
Set MDS automated language
Complete the call.
Release TABS resources.

SB900 – [Transfer AudioGram call to MDS via Operator Request]

Set languages to MDS/AudioGram values
Request call be sent to Operator (MDS)
Release TABS resources

Call flow for ARAN service

SC000 – [ARAN HANDLING]

IF Zero_Plus call
next_state [SC001 – Check restrictons]

IF One_Plus call
next_state [SC002 – Initialize retry counters]

SC001 – [Check which billing method is allowed]

IF None
Abort call.
IF Collect only
next_state [SC001.2 – Check for collect oversea calls]
IF otherwise
next_state [SC002 – Initialize retry counters]

SC001.2– [Check for collect oversea calls]

IF Oversea
next_state [S6000 – Request Operator]
ELSE
next_state [SC002 – Initialize retry counters]

SC002 – [Initialize retry counters]

– DIALING_NO_RESPONSE
– DIALING_FORMAT_ERR
– DIALING_TOTAL_RETRY
next_state [SC003 – Play Welcome Message?]

SC003 – [Play Welcome Message?]

IF {WELCOME_MSG_ENABLE = TRUE}
next_state [SC003.1 – Play Welcome Message]
Otherwise
next_state [SC004.3 – Check Call Type]

SC003.1– [Play Welcome Message]

IF {custom branding Billed Welcome prompt available}
Play Billed Welcome Custom Brand prompt [OT0_CB]

Otherwise

```
"This is Bell Canada"
[OT-0, OT-0A-BC-E, OT-0A-BC-F]
```

IF {DTMF input detected}
next_state [SC003.2 – Analyze Input]
Otherwise
next_state [SC004.3 – Check Call Type]

Call flow for ARAN service (continued)

SC003.2– [Analyze DTMF input made during Welcome Message]

IF {"0" detected}
next_state [S6000 – Operator Request]

IF {"17" detected}
next_state [SC003.4 – Check Call Type]

IF {"19" detected}
next_state [SC003.5 – Check Call Type]

Otherwise
Play error message

"The number as entered is incorrect."
[SS–8, SS–8A–BC–E, SS–8A–BC–F]

decrement – DIALING_FORMAT_ERR
– DIALING_TOTAL_RETRY

IF {DIALING_FORMAT_ERR limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S12A0 – Too many failures]
Otherwise
next_state [SC004.3 – Check Call Type]

SC003.4– [Check Call Type]

IF {Zero_Plus call}
next_state [SC003.4.1 – Check for Unilingual systems]

IF {One_Plus call}
Play error message

"The number as entered is incorrect."
[SS–8, SS–8A–BC–E, SS–8A–BC–F]

decrement – DIALING_FORMAT_ERR
– DIALING_TOTAL_RETRY

IF {DIALING_FORMAT_ERR limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S12A0 – Too many failures]
Otherwise
next_state [SC0049 – Room/Auth. Number Collection]

Call flow for ARAN service (continued)

SC003.4.1 – [Check for Unilingual systems]

IF {Unilingual}
next_state [SC020 – Check datafill]
IF {Bilingual}
next_state [SC003.4.2 – Is Front–End language undefined ?]

SC003.4.2 – [Is Front–End language undefined ?]

IF {Undefined}
Assign Front–End language to English.
next_state [SC048 – 1 sec. Delay before Room/Auth. Number Request Prompt]
IF {Defined}
Play error message

"The number as entered is incorrect."
[SS–8, SS–8A–BC–E, SS–8A–BC–F]

next_state [SC049 – Room/Auth. number collection]

SC003.5– [Check Call Type]

IF {Zero_Plus call}
next_state [SC003.4.1 – Check for Unilingual systems]

IF {One_Plus call}
Play error message

"The number as entered is incorrect."
[SS–8, SS–8A–BC–E, SS–8A–BC–F]

decrement – DIALING_FORMAT_ERR
– DIALING_TOTAL_RETRY
next_state [SC049 – Room/Auth. number collection]

SC003.5.1 – [Check for Unilingual systems]

IF {Unilingual}
next_state [SC020 – Check datafill]
IF {Bilingual}
next_state [SC003.4.2 – Is Front–End language undefined ?]

Call flow for ARAN service (continued)

SC003.5.2 – [Is Front–End language undefined ?]

IF {Undefined}
Assign Front–End language to French.
next_state [SC048 – 1 sec. Delay before Room/Auth. Number Request Prompt]
IF {Defined}
Play error message

"The number as entered is incorrect."
[SS–8, SS–8A–BC–E, SS–8A–BC–F]

decrement – DIALING_FORMAT_ERR
– DIALING_TOTAL_RETRY
next_state [SC049 – Room/Auth. number collection]

SC004.3– [Check Call Type]

IF {Zero_Plus}
next_state [SC005 – Is Front–End language undefined ?]
IF {One_Plus}
next_state [SC049 – Room/Auth. number collection]

SC005 – [Is Front–End language undefined ?]

IF {Undefined}
next_state [SC007 – Language Selection]
IF {Defined}
next_state [SC049 – Room/Auth. number collection]

SC007 – [Front End Language Request]

IF {FLS}

"For service in English, press one seven.
Pour le service en francais, appuyez sur un, neuf."
[LS–1A–BC–E, LS–1B–BC–E, LS–1C–BC–E, LS–1D–1D–E,LS–1E–BC–E,LS–1F–BC–E, LS–1A–BC–F, LS–1B–BC–F, LS–1C–BC–F, LS–1D–BC–F,LS–1E–BC–F, or LS–1F–BC–F]

IF {ALS}

"For service in English, please hold.
Pour le service en francais, appuyez sur un, neuf."
[LS–7A–BC–E, LS–7B–BC–E,LS–7A–BC–F,LS–7B–BC–F, or LS–7C–BC–F]

Call flow for ARAN service (continued)

SC007 (cont'd)

ON{digits received}
next_state [SC015 – Analyze Input]

ON{No subscriber response within ALS_TIMEOUT (2.0 seconds)}
IF { ALS }
SET {Front End Language to default language}
next_state [SC049 – Room/Auth. number collection]
Otherwise
next_state [SC017.6 – Check Retry Count]

ON{Hookflash}
next_state [S6000 – Route to Operator]

SC010 – [Front End Language Request (detailed)]

IF { FLS }

```
"For service in English, press one seven now.
 Si vous desirez obtenir le service en
 francais, appuyez sur un, neuf maintenant.
[LS–2A–BC–E,LS–2B–BC–E, LS–2C–BC–E,
 LS–2D–BC–E,LS–2E–BC–E,LS–2F–BC–E,LS–2A–BC–F,
 LS–2B–BC–F,LS–2C–BC–F,LS–2D–BC–F,LS–2E–BC–F,
 or LS–2F–BC–F]
```

IF { ALS }

```
"For service in English, please hold.
 Pour le service en francais, appuyez sur un,
 neuf."
[LS–8A–BC–E, LS–8A–BC–F,LS–8B–BC–F,
 or LS–8C–BC–F]
```

ON{digits received}
next_state [SC015 – Analyze Input]

ON{No subscriber response within ALS_TIMEOUT (2.0 seconds)}
IF { ALS }
SET {Front End Language = default language)
next_state [SC049 – Room/Auth. number collection]
Otherwise
next_state [SC017.6 – Check Retry Count]

ON{Hookflash}
next_state [S6000 – Route to Operator]

Call flow for ARAN service (continued)

SC015 – [Input Analysis]

IF {"0"}
next_state [S6000 – Operator Request]

IF {"17"}
Set Front End Language to English
next_state [SC048 – 1 sec. Delay prior to Room/Auth. Number Collection]

IF {"19"}
Set Front End Language to French
next_state [SC048 – 1 sec. Delay prior to Room/Auth. Number Collection]

Otherwise
next_state [SC016 – Play Error Prompt]

SC016 – [Play Error Prompt]

"The number as entered is incorrect."
[SS–8, SS–8A–BC–E, SS–8A–BC–F]

next_state [SC017 – Check Retry Limits]

SC017 – [Decrement Retry Counters and Check Values]

decrement – FE_LANG_RETRY
– DIALING_FORMAT_ERR
– DIALING_TOTAL_RETRY

IF {FE_LANG_RETRY limit attained}
next_state [S6000 – Operator Assistance]

ELSE
IF {DIALING_FORMAT_ERR limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S12A0 – Too many failures]
Otherwise
next_state [SC010 – Play Retry Lang. Selection Prompt]

Call flow for ARAN service (continued)

SC017.6– [Decrement FE_LANG_RETRY and check value]

decrement – FE_LANG_RETRY

IF {FE_LANG_RETRY limit attained}
next_state [S6000 – Operator Assistance]

ELSE
next_state [SC010 – Play Retry Lang. Selection Prompt]

SC020 – [Single Language only Msg]

IF {Transfer to operator (LANG_BEFORE_SS=Operator)}
next_state [S6000 – Route to Operator]

Otherwise

```
"Language selection is not available
 in this area.  The call will continue
 in English."
[OT-45A-BC-E]
```

decrement – DIALING_FORMAT_ERR
– DIALING_TOTAL_RETRY

IF {DIALING_FORMAT_ERR limit (1) attained,
OR
DIALING_TOTAL_RETRY limit (2) attained}
next_state [S12A0 – Too many failures]
Otherwise
next_state [SC049 – Room/Auth. Number Collection]

SC048 – [1 sec. Delay prior to Room/Auth. Number Collection]

Play the "MPLPC_SILENCE" prompt (1 sec. blank).

ON DTMF input detected
Play Error message

```
"The number as entered is incorrect."
[SS-8, SS-8A-BC-E, SS-8A-BC-F]
```

decrement DIALING_TOTAL_RETRY

IF {DIALING_TOTAL_RETRY limit (2) attained}

next_state [S12A0 – Too many failures]
Otherwise
next_state [SC049 – Room/Auth. Number Collection]

Call flow for ARAN service (continued)

SC049 – [Room/Auth. Number Collection]

IF {Room Number Collection}
next_state [SC050 – Prompt for Room Number]

IF {Auth. Number Collection}
next_state [SC060 – Prompt for Auth. Number]

SC050 – [Play Room Number Request Prompt]

"Please enter your room number now or press zero to reach an operator."
[OT–55, OT–55A–BC–E, OT–55A–BC–F]

ON DTMF Input Recognized
next_state [SC053 – Analyze Input]

ON No DTMF Input recognized
next_state [SC056 – Check Retry Counter]

SC053 – [Analyze DTMF input]

IF {Input is a 1 to 6 digit number other than "0" alone}
next_state [SC054 – Pad Number with F's]

IF {Input is "0"}
next_state [S6000 – Request Operator]

Otherwise
next_state [SC055 – Play Error Prompt]

SC054 – [Pad Room Number with F's]

IF {Length of Collected Number is lesser than six Digits}
Pad the right end portion with F's
next_state [SC100]

SC055 – [Play Error Prompt and check Retries]

"The room number as entered is not valid."
[OT–57, OT–57A–BC–E, OT–57A–BC–F]

IF {ROOM_NUM_RETRY limit (2) attained}
next_state [S6000 – Operator Assistance]

Otherwise
next_state [SC055.4 – Re–prompt for Room Number]

Call flow for ARAN service (continued)

SC055.3– [Play Room Number Retry Request Prompt]

"Please enter your room number again."
[OT–56, OT–56A–BC–E, OT–56A–BC–F]

ON DTMF Input Recognized
next_state [SC053 – Analyze Input]

ON No DTMF Input recognized
next_state [SC056 – Check Retry Counter]

SC060 – [Play Auth. Number Request Prompt]

"Please enter your authorization number now or press zero to reach an operator."
[OT–58, OT–58A–BC–E, OT–58A–BC–F]

ON DTMF Input Recognized
next_state [SC063 – Analyze Input]

ON No DTMF Input recognized
next_state [SC066 – Check Retry Counter]

SC063 – [Analyze DTMF input]

IF {Input is a 1 to 6 digit number other than "0" alone}
next_state [SC064 – Pad Number with F's]

IF {Input is "0"}
next_state [S6000 – Request Operator]

Otherwise
next_state [SC065 – Play Error Prompt]

SC064 – [Pad Auth. Number with F's]

IF {Length of Collected Number is lesser than six Digits}
Pad the right end portion with F's
next_state [SC100]

SC065 – [Play Error Prompt and check Retries]

"The authorization number as entered is not valid."
[OT–60, OT–60A–BC–E, OT–60A–BC–F]

IF {AUTH_NUM_RETRY limit (2) attained}
next_state [S6000 – Operator Assistance]
Otherwise
next_state [SC065.4 – Re–prompt for Auth. Number]

Call flow for ARAN service (continued)

SC065.3– [Play Auth. Number Retry Request Prompt]

"Please enter your authorization number again."
[OT–59, OT–59A–BC–E, OT–59A–BC–F]

ON DTMF Input Recognized
next_state [SC063 – Analyze Input]

ON No DTMF Input recognized
next_state [SC066 – Check Retry Counter]

SC100 – [Successful Room/Auth. Number Collection – Peg OMs]

IF {Zero Plus Call}
Re–initialize Retry Counters
Play Bong Tone [SS–1, SS–1A–BC–E, SS–1A–BC–F]
next_state [S1300]

IF {One Plus Call}
Play Thank You Message

"Thank you."
[OT–46, OT–46A–BC–E, OT–46A–BC–F]

Release Resources

Interaction with the DMS switch

The way the DMS switch and the TOPS VSN interact with each other is one of the most important features of Automated Alternative Billing Services (AABS). Screening by the DMS and call setup between the DMS and the TOPS VSN are two features unique to the TOPS VSN product. These are discussed below.

Screening and call setup are configured by entering data on tables resident on the DMS and the TOPS VSN. These tables and the appropriate data entries are discussed in more detail in *System Administration and Maintenance Operating Procedures,* 450–1301–310.

AABS screening for 0+ calls

When a 0+ call is received by the DMS switch, it is screened to determine whether it can be processed by the TOPS VSN. Screening is used to determine the following:

- the call is a 0+ (toll) type call that can be handled by the operating company
- the call is known to originate from a DTMF set (only in Canada with the KP2P feature (this allows the call to be distinguished by DTMF pulse)
- the call originates from a hotel that requires charge records
- the call arrives over a trunk group which permits TOPS VSN processing
- the billing type is one of the these call types; collect, calling card, commercial credit card, or third number billing
- the automatic number identification (ANI) digits have been received by the DMS

All conditions must be met for the call to receive AABS processing.

AABS screening for operator handoff calls

Before a call can be handed off to the TOPS VSN, it is screened to determine the following:

- the call originates from a hotel that requires charge records and that the call is routed to the operator for the room number to be entered
- the call arrives over a trunk group which permits TOPS VSN processing

- the billing type is either collect or third number billing
- the call is routed to the operator for the calling number to be entered
- the type of call (collect or third-number-billing)
- the called number and the billing number are valid
- the billing is valid (billing validation is completed before the call is released to TOPS VSN)

All conditions must be met for the call to receive AABS processing.

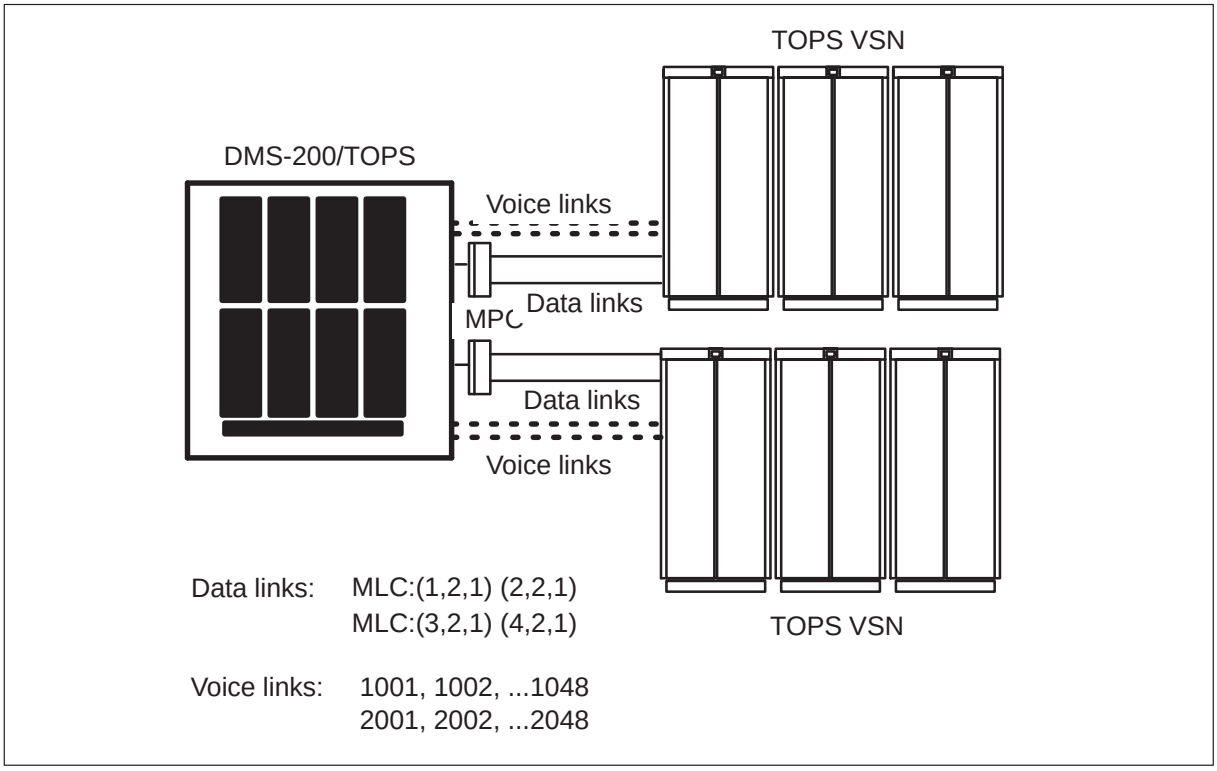
Establishing a voice and data link for each call

Once a call is determined as suitable for TOPS VSN processing (as defined by the criteria listed above), at least one voice and one data link must be established to a TOPS VSN.

Each call is connected from the DMS to the TOPS VSN by way of a data link and a channel on a voice link. The DMS side of the AABS system requests the TOPS VSN resources. Voice links have a four-digit identifier. The first digit specifies which VSN the link is physically connected to. The remaining digits identify the channel.

Data links are connected from the MPC on the DMS-200 TOPS to a TOPS VSN. A message is sent across the data link on a logical link called an MLC. An MLC is an abbreviated name for three associated entities, the MPC number, the physical link number, and the conversation number. Figure 4-1 shows the logical information flow between the TOPS VSN and the DMS.

Figure 4-1
DMS to TOPS VSN links



When information flows between the DMS and the TOPS VSN, the following sequence of events takes place:

1 The AABS application requests TOPS VSN resources.

2 The least active voice link to the TOPS VSN is selected and a voice connection is made.

3 The DMS indexes the voice link on table VSNMEMBR in order to identify the VSN that the voice link is connected to.

4 The DMS requests a logical link number from the MPC utility for the datalink connecting the DMS and the TOPS VSN.

5 The MPC informs the DMS of the logical link number which is the MLC.

The DMS now has a voice and data link connection to the appropriate TOPS VSN. Subscriber and TOPS VSN interaction take place as described in the sections covering service selection phase and billing service phase in Chapter 3 of this practice.

List of terms

AABS

Automated Alternate Billing Service

ACB

Account Code Billing

ACCS

Automated Calling Card Service

ACPE

application call processing engine

alarm interface unit (ALIU)

Hardware that provides an alarms output interface and accepts alarms input (fan fail, power fail, and so forth) from a rack-based system.

ALIU

alarm interface unit

AP

application processor

application call processing engine (ACPE)

The ACPE is responsible for processing the calls received from the DMS. Each ACPE can handle up to 24 calls.

application processor

An application processor is a type of shared resource unit.

Automated Alternate Billing Service (AABS)

A DMS TOPS feature that allows automated completion of calling card, collect, and third-number billed calls using voice recognition technology and prompt generation to communicate with the calling and billed parties. AABS consists of software in the DMS switch to handle call processing functions and loop-up initiations. This software also handles the external voice service node.

Automated Calling Card Service (ACCS)

A feature that allows the subscriber to dial a call and bill it to a calling card number provided by the operating company.

batch change supplement (BCS)

A DMS-100 Family software release.

BCS

batch change supplement

billed number screening (BNS)

A Common Channel Signaling Number 7 (CCS7) application process that performs a validation check on the number to which a call is billed. This check is initiated by the operator-assisted and third-number billed calls.

billing validation authority (BVA)

The BVA handles validation request queries from the DMS-100 for calling card verification or billing number screening (BNS) for collect calls and third-number billing verification.

BNS

billed number screening

BVA

billing validation authority

calling card validation (CCV)

A Common Channel Signaling 7 (CCS7) service that allows TOPS operators to validate card numbers in the network service database system. TOPS operators perform this task by entering the special billing class charge and the calling card number.

calls per hour (CPH)

The number of 0+ calls to an office in a one hour time frame.

CCITT

Committee Consultative International Telephone and Telegraph (International Telegraph and Telephone Consultative Committee)

CCV

calling card validation

CLLI

common language location identifier

Committee Consultative International Telephone and Telegraph (CCITT)

One of four permanent members of the International Telecommunication Union (ITU) which deals with technical problems relating to telephone and telegraph services.

common language location identifier (CLLI)

A standard identification method for trunk groups in the form aaaa bb xx yy defined as follows:

- aaaa represents the city code
- bb represents the province or state code
- xx represents the trunk group identity
- yy represents the trunk number

CPH

calls per hour

DA

directory assistance

digital trunk controller (DTC)

A peripheral module that connects DS30 links from the network with digital trunk circuits.

digital trunk link shared resource unit (DTL SRU)

The digital trunk link shared resource unit connects the TOPS VSN to North American digital facilities using the DS-1 signalling format.

Digital Multiplex System (DMS)

A central office switching system in which all external signals are converted to digital data and stored in assigned time slots. Switching is performed by reassigning the original time slots.

directory assistance (DA)

A service that allows a subscriber to ask an operator to look up information from a telephone listing database.

directory number (DN)

The full complement of digits required to designate a subscriber station in one NPA. The DN is usually a three-digit central office code followed by a four-digit station number.

DMS

Digital Multiplex System

DN

directory number

DNC

Dynamic Network Controller

DTC

digital trunk controller

DTL SRU

digital trunk link shared resource unit

DTW

dynamic time warp

DVS

data voice system

Dynamic Network Controller (DNC)

A family of applications that provide an enhanced level of network control. These applications communicate with network elements, such as the DMS switch, to control network functions dynamically and to provide secure customer access to associated operations data and new network services. Also, these applications allow operating companies to develop their service management and administration system independently of the evolution of their network equipment.

dynamic time warp (DTW)

The technical process used to perform word recognition.

enhanced single board computer (ESBC)

The enhanced single board computer provides the processing power to run the software that executes the six channels in shared resource units.

ESBC

enhanced single board computer

frame supervisory panel (FSP)

A facility that accepts the frame battery feed and ground return from the power distribution center. The FSP distributes the battery feed, by means of subsidiary fuses and feeds, to the shelves of the frame or bay in which it is mounted. The FSP also contains alarm circuits.

FSP

frame supervisory panel

input/output controller (IOC)

An equipment shelf that provides an interface between up to 36 I/O devices and the central message controller. The IOC contains a peripheral processor that independently performs local tasks, thus relieving the load on the CPU.

IOC

input/output controller

IOP

input/output processor

LAN

local area network

language preference

In a bilingual system, language preference denotes the languages used to interact with a calling party until the calling party specifies a language. For example, an entry of ENG specifies interactions in English only; an entry of FRE_ENG specifies interactions in French first and then English until the subscriber makes a language choice.

language versions

The languages in which a specific announcement is available.

LANlink

LANlink is a unit that provides high-speed data ports to connect Meridian M4020 terminals, personal computers, or local area network (LAN) interface units.

LAPB

link access procedure balanced

LATA

local access transport area

LIDB

line information database

line information database (LIDB)

A database used to query alternate billed intra-LATA calls.

link access procedure balanced (LAPD)

An ISDN access protocol used with links established on a B-channel. LAPB supports a single data link that operates with a fixed single-byte address convention between the ISDN terminal and the network.

LIU

local area network (LAN) interface unit

local area network (LAN)

A network permitting the interconnection and intercommunication of a group of computers, primarily for the sharing of resources such as data storage devices and printers.

local area network interface unit (LIU)

Hardware component that interfaces with the X.25 protocol, the software that allows the DMS and VSN to communicate. This unit also takes the high-speed data from one LANlink port and reformats the data to make it compatible with ports that operate at lower speeds.

local area transport area (LATA)

A geographical area, called an exchange or exchange area, where an operating company offers telecommunication services. LATA is used in the United States only.

locality call

An incoming call requiring billed party verification and a locality check.

locality link

A mapping between a directory number (DN) and an announcement or a DN and a language preference.

maintenance and administrative position (MAP)

See MAP.

man-machine interface (MMI)

See user interface.

MAP

Maintenance and administration position. A group of components that provide a user interface between operating company personnel and the DMS-100 Family switches. The interface consists of a visual display unit (VDU) and keyboard, a voice communications module, test facilities, and special furniture.

MCCS

mechanized calling card service

mechanized calling card service (MCCS) call processing

A service that enables a subscriber to make chargeable long distance calls without operator assistance. A subscriber makes these calls by using a credit card and entering special billing information.

MMI

man-machine interface. Preferred term is user interface.

network operations protocol (NOP)

A protocol that provides an interface between a DMS-100 Family switch and its remote systems.

Network Operations System (NOS)

A facility that allows the DMS-100 switch to transfer data over communications links to a telephone network operating system.

NOP

network operations protocol

Northern Telecom practice (NTP)

A document that contains descriptive information about the DMS-100 Family hardware and software modules, and performance oriented practices for testing and maintaining the system. NTP are supplied as part of the standard documentation package provided to an operating company.

NOS

Network Operations System

NPA

numbering plan area

NTP

Northern Telecom practice

numbering plan area (NPA)

Any of the designated geographical divisions of the U.S., Canada, Bermuda, the Caribbean, Northwestern Mexico, and Hawaii within which no two telephones will have the same seven-digit number. Each NPA is assigned a unique three-digit area code and is also known as area code.

OM

operational measurements

operational measurements (OM)

The hardware and software resources of the DMS-100 Family switches that control the collection and display of measurements taken on an operating system. The OM subsystem organizes the measurement data and manages its transfer to displays and records. The OM data is used for maintenance, traffic, accounting, and provisioning decisions.

operator services system (OSS)

A cost-effective method of providing subscribers with directory assistance. The OSS resides on the DMS-100 or DMS-200 switch. It handles DA calls (411, 555–1212, and so forth) and includes a force management system and Automatic Message Accounting Capability (AMA).

OSS

operator services system

personal identification number (PIN)

A unique number used along with an access code to activate a service, such as subscriber activated call blocking (SACB). The PIN provides security for the subscriber from unauthorized use of a service.

PIN

personal identification number.

program resource unit (PRU)

Modular packages or units organized by applications processors.

PRU

program resource unit

RAO

revenue accounting office

resource manager (RM)

The RM tracks state, location, load file name, and program type of every major hardware and software entity in the DVS. It supports the addition of PRUs and some server-like functions.

revenue accounting office (RAO)

A data center that produces subscriber bills from host office automatic message accounting data.

RM

resource manager

RRU

remote resource unit

SAS

system administration service

SCSI

small computer system interface

SDM

service data manager

service data manager (SDM)

The service data manager provides applications with the ability to define and store run-time data.

shared resource unit (SRU)

Hardware comprised of replaceable components designed for the TOPS VSN bay. There are nine types of SRUs; rack converters, disk SCSIs, primary processors, 350 Mbyte disks, applications processors, LANlink, digital trunk links, and voice interfaces.

small computer system interface (SCSI)

The small computer system interface accesses the disk shared resource unit (SRU) and provides an additional one megabyte of random access memory (RAM) for code node PRUs.

snapshot

Data that is formatted for printing and written to a file which is then spooled to a printer.

SRU

shared resource unit

system administration services (SAS)

System administration services are used to enter configuration data specific to the TOPS VSN and to verify system data loaded from the installation tapes.

TICS

TOPS interLATA carrier service

TOPS

Traffic Operator Position System

TOPS interLATA carrier services (TICS)

TICS allows the operating companies to provide operator services for the carrier on 0+ interLata calls.

Traffic Operator Position System (TOPS)

A call processing system made up of a number of operator positions. Each operator position consists of a visual display unit (VDU), a controller, a keyboard, and a headset.

T1

The line carrier at digital signalling level one (DS-1), which is also known as a digital trunk link.

user interface

The series of commands and responses used by operating company personnel to communicate with the DMS-100 Family switches. It is achieved through the MAP terminal and other input/output (I/O) devices. Formerly known as man-machine interface.

VI

voice interface

VI SRU

voice interface shared resource unit

voice interface unit (VI)

Voice interface unit performs signal processing functions on digital voice-band signals present on the voice bus. The unit converts pulse code modulation data into disk-compatible data and converts disk-compatible data into pulse code modulation data.

voice interface shared resource unit (VI SRU)

The VI SRU is responsible for voice recording, voice playback, speech recognition, and dual-tone multifrequency recognition. Each VI SRU is capable of handling six voice channels.

voice service node (VSN)

A processor external to the DMS switch that communicates with the switch through an application protocol to provide the voice recognition and prompt generation components of Automated Alternate Billed Service (AABS).

VSN

voice service node

DMS-100 Family

TOPS Voice Service Node

AABS – Features Description

Publication number: 450-1301-100
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NORTEL
NORTHERN TELECOM