ACD Call Guide
User Manual

Third Edition
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Pointspan

AASTRA

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Revision History

The following represents the revision history of this publication:

Revision Number	Date Completed	Point of Contact	Description
004	08.02.2006	Aastra	Updated branding
003	05.10.2005	Aastra	Re-branded for Aastra
002	01.24.2005	EADS TELECOM North America - Technical Publications	Added: • OAI Controlled Call Guide System Variables • AQT to Pointspan Feature
001	May 16, 2003	EADS TELECOM North America - Technical Publications	Initial release of this publication. Supports PointSpan version 3.0.

Table of Contents

List of Tables

About This Publication

This publication provides technical information that:

- Defines "call guide"
- Describes the role of call guides in Automatic Call Distribution (ACD)
- Explains the functions of the call guide commands
- Lists call guide design principles
- Provides procedures to develop and modify call guides

Audience

This publication provides assistance to Aastra Inc. customers who develop call guides as part of administering and supporting ACD.

Publication Organization

This manual contains the following chapters.

Chapter, Topic	Description
Chapter 1, Call Guides	Describes the function of call guides and provides detailed call guide design principles. It includes procedures to create and modify call guides in a PointSpan switch database.
Chapter 2, Call Guide Steps and Commands	Explains the function of every ACD call guide command.
Chapter 3, Call Guide Parameters	Explains how call guides use parameters in their functions and describes the different types of call guide parameters.
Chapter 4, Digit Collection	Explains the digit collection templates used by Get Digits steps. It includes procedures to create and modify digit collection templates.
Chapter 5, Call Route Scheduling	Describes the Call Route Scheduling feature, which automatically activates different call guides at different times of day, days of the week, or days of the year to support anticipated changes in call center activity. It includes procedures to implement and control the feature.
Chapter 6, Call Guide Error Handling	Describes the use of a special section in a call guide that the system only processes when a call guide processing error occurs.

Chapter, Topic	Description
Chapter 7, Manual Overflow	Describes the ACD manual overflow feature and special considerations for call guides.
Chapter 8, OAI Controlled Call Guide System Variables	Describes the AQT to PointSpan feature with OAI Controlled Call Guide System Variables

Conventions Used In This Publication

This manual uses the following publication conventions to help you identify different types of information.

Convention	Description	Example
Angle brackets < >	Key names Keys to press	Press <Enter> to accept the default value.
Bold text	Characters to enter when referenced in a procedure	In the example, select the DTMF group type.
(*Italics*)	Explanatory text within a command sample	(*Building Ports*)
Courier	Example of output that a system displays	Enter Password (and Username)
Horizontal Ellipses	Horizontal line omissions in a command sequence	...
Vertical Ellipses	Vertical line omissions in a command sequence	. . .
Note	Provides supplemental information.	Note The prompt may not display if …
Caution!	Provides information to help you avoid possible damage to hardware or a system crash (without data loss).	Caution! Use case sensitive commands to keep from destroying…
Warning!	Provides information to ensure that you avoid danger, death, or permanent damage to a system.	Warning! DO NOT touch exposed wires.
Action column	In a step/action/result table, contains an instruction.	Type **SPAR**.

Convention	Description	Example
Result column	In a step/action/result table, contains anything important that the action causes to happen.	The console displays the new parameter values.

References

The following publications provide related information.

Publication Number	Title	Description
2470-*nnn*	Centergy Supervisor Guide	Supports call center supervisors in using the Centergy Manager application.
2471-*nnn*	Centergy Server Operations and Maintenance manual	Helps system administrators perform operations, maintenance, and troubleshooting functions through the Centergy Network Management Server (CNMS).
2489-*nnn*	IVC Card Features and Support	Provides information and procedures to help customers implement and use the Integrated Voice Services (IVS) feature.
2494-*nnn*	PointSpan System Operations manual	Provides step-by-step instructions to operate and maintain PointSpan.
2498-*nnn*	PointSpan System Description manual	Describes the basic operations of PointSpan and its family of system products.
2503-*nnn*	Centergy Administrator Guide	Supports call center administrators in using the Centergy Manager application.
2506-*nnn*	Centergy Reports Guide	Describes the standard report templates that the Centergy Manager application provides.
2512-*nnn*	PointSpan Station Database Procedures manual	Provides step-by-step procedures to implement and maintain PointSpan stations and phone equipment.

Publication Number	Title	Description
2513-*nnn*	PointSpan System Database Procedures manual	Provides step-by-step instructions to implement and maintain PointSpan features, system functions, and configurations for cards, ports, and other switch components.
2516-*nnn*	PointSpan Command Reference manual	Defines the commands available through an administrative console to access and control the database of a PointSpan system.
2541-*nnn*	Automatic Call Distribution (ACD) System Description	Provides general information on ACD. Explains what ACD is and what is does. It describes all ACD components and capabilities at a broad level.
2542-*nnn*	ACD Administration Procedures	Provides instructions to implement ACD and to control individual ACD capabilities.
Various	Quick reference and user guides for phones: • Series 2000 ITE 760 • Series 2000 ITE 780 • ITE 12 • ITE 12 SD • ITE 12 S • ITE 30 SD	Provide instructions for using the many phones and stations available with PointSpan.
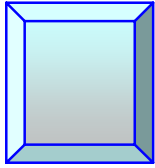
Chapter 1
Call Guides

Overview

A call guide is a series of instructions, similar to a script or program, specifying how Automatic Call Distribution (ACD) processes calls, including how it routes calls to agents. Each instruction in a call guide is a *step*, each call guide can contain up to 255 steps, and each step contains one of the 32 available call guide commands (core instructions). Each call guide is an autonomous construct that can be assigned to any number of pilots.

Call Guide Design Principles

To design an effective call guide, you need to understand the functions of every command and the options for using parameters. You need to follow appropriate administrative console procedures to create and modify call guides, digit collection templates, and other related constructs in a PointSpan switch database. However, fundamental knowledge of call guide creation is not enough. You also need to understand and apply principles of effective call guide design.

Principles

The following are important principles of call guide design:

- Apply basic programming principles. A call guide functions much like the software code of a program or script. Successful call guide design requires at least a familiarity with fundamental software design practices and guidelines. Although this publication presents some software design principles, Aastra Inc. recommends that call guide designers have previous programming experience.

- Begin by describing the call handling requirements for the call centers the call guide or guides will support. See "Example Call Guide Description."

- Based on the call guide description, plan the steps for each call guide. See "Example Call Guide Plan." Your goal is to *fully* understand what each call guide will do before coding it on the switch.

- Apply a logical call flow. Ensure that each step, in the order given, performs in a way matching the call guide description.

- Evaluate the scope of your call guide plan. A single call guide cannot exceed 255 steps. If the plan involves more than 255 actions, your system needs more than one call guide. Use Branch to Call Guide, Call Guide Call, and Call Guide Return steps to transfer processing from one call guide to another. A PointSpan switch database can maintain thousands of call guides.

- Apply modularization. Use separate (modular) call guides to contain the steps for processes that occur more than once. End each modular call guide with a Call Guide Return step. Other call guides can use a Call Guide Call step to access a modular call

guide. The Call Guide Return step in a modular call guide returns processing to the calling call guide.

For example, a call center may play the same message when a call first enters the system and whenever the system transfers a call to another pilot. A modular call guide can contain all of the Speak IVS Phrase and Speak IVS Data steps that play that message. Other call guides can call the modular call guide to play the message without duplicating the Speak IVS Phrase and Speak IVS Data steps.

- Plan the use of call guide parameters. Each call guide step typically contains one or more parameters that affect the operation of the step. Based on your call guide description and call guide plans, define in advance which parameters your system's call guides need. Focus especially on arguments (user-defined variables) that call guides must pass to other call guides in Branch to Call Guide and Call Guide Call steps. The system can not maintain more than 100 variables for any single call. Call guide processing maintains all of the variables introduced by the initial call guide throughout a call. It also maintains variables introduced by other call guides that the system branches to or calls. However, the system stops maintaining the variables of a call guide after it returns processing to the initial call guide. See "Call Guide Parameters" for more details.

- Evaluate whether call guides need to support anticipated changes in call center activity at different times of day, days of the week, or days of the year. If they do, see "Call Route Scheduling."

- Ensure that the system supports all planned functionality, such as Intelligent Queuing and Integrated Voice Services (IVS). A system's hardware and software configuration determine its capabilities.

- Consolidate your individual call guide plans in a master ACD design plan. This plan lists all of the steering and agent group pilots that support the center. It details all of the parameters for each pilot. If a pilot uses Call Route Scheduling, the plan records the actual system number for each of the pilot's call guides (A pilot numbers its main call guides 1 through 4; these numbers do not match the call guide numbers that the system database assigns to call guides through the ACDC command). The ACD design plan maps how call guides branch to and call each other. It lists the variables that each call guide passes to and receives from other call guides. See "ACD Design Principles" in the *ACD Administration Procedures* manual (2542-*nnn*) for details.

- Test your call guides. Develop a detailed test plan to:

  – Ensure that external calls route to the correct pilots.

  – Ensure that internal calls do not cause unexpected call guide processing.

  – Ensure that the system plays all messages correctly.

  – Ensure that agent actions, such as transferring calls and placing calls on hold, do not cause unexpected call guide processing.

  – Ensure that error handling performs as expected. (Testing error handling may require temporary call guides that deliberately route processing to error handling sections. Before implementing call guides in a live environment, remove all call guides that you created for testing only).

A comprehensive test plan covers every call processing path, including all branching, call guide calling, and error handling. Ensure that your test plan ultimately processes calls through *every* step in your system's call guides.

Revise your call guides to correct any errors that your testing identifies.

Example Call Guide Description

The following example describes intended call guide functionality:

```
When a caller first accesses the call center, the system plays a
message with three options: place an order (1), reach customer
service (2), or reach technical support (3). The system routes
order placement calls to pilot 1010, customer service calls to
pilot 1020, and technical support calls to pilot 1030. If the
wait time for the selected primary pilot is over one minute, the
system routes the call to overflow pilot 2010.

If an agent in a primary pilot is not available, the system plays
a message, "Your call is valuable to us! Please stay on the line
and an agent will be with you in X seconds." The system provides
the current wait time in seconds to the caller. The system plays
music to each caller for up to 30 seconds while waiting for a
primary agent. If no primary agent is available in that time, the
system forwards calls to overflow pilot 2010. The system
continues to play music to the caller. If no overflow agent is
available within another 60 seconds, the system plays a message,
"We're sorry. No agents are available for your call at this time.
Please call back." Then the system ends the call.

Error handling is still to be determined.
```

Example Call Guide Plan

The following example shows a call guide plan, based on the description of intended call guide functionality in "Example Call Guide Description."

```
Variables:

CALLIN (user-defined variable for caller input; a digit
string with 1 digit: valid digits are 1, 2, or 3)

CALCETA (system variable for current wait time for a call)

Steps:

1    SPHR (Speak IVS Phrase: "Options...")

2    Get Digits (Digit Collection Template 1 - defines
     CALLIN variable)

3    IF CALLIN = 1

4    AGRP 1010

5    ENDF

6    IF CALLIN = 2

7    AGRP 1020
```

```
8    ENDF

9    IF CALLIN = 3

10   AGRP 1030

11   ELSE

12   GOTO (Error Handling Section, TBD)

13   ENDF

14   IF CALCETA > 60

15   GOTO 20

16   SPHR (Speak IVS Phrase: "Your call is important,
     will be answered in...")

17   SDAT (Speak Data: Current call wait time, CALCETA)

18   SPHR (Speak IVS Phrase: "...seconds.")

19   WAIT (Music for up to 30 seconds)

20   AGRP 2010

21   WAIT (Music for up to 60 seconds)

22   SPHR (Speak IVS Phrase: "No agents available")

23   DISC (Disconnect call)
```

This call guide plan provides a good outline of the steps required to function according to the call guide description. It does not, however, provide details for every parameter. Plans may be more or less detailed, depending on the capability of the call guide designers. A novice call guide designer may want each step in a plan to include *all* of the parameters it will use. With more experience, a call guide designer may want plans with only the commands for each step. Detailed call guide plans are especially important if many call guide designers are collaborating or if system administrators who did not actually design the call guides will be responsible for creating them on a switch.

Create a Call Guide

Use this procedure to create a call guide with instructions that specify how Automatic Call Distribution (ACD) processes calls, including how it routes calls to agents. If your application of ACD uses Call Route Scheduling, you will create different call guides for different times of day, days of the week, or days of the year. A call guide can contain instructions to support interactive voice response (IVR) functions and the Integrated Voice Services (IVS) feature.

Initial Conditions

The creation of a call guide requires much prerequisite information and system configuration. Some examples include:

- To support ACD, a call guide needs valid agent group directory numbers and user group information.

- To support IVR functions, a call guide requires valid IVS group, IVS phrase group, IVC device information.

- To support digit collection, a call guide requires a digit collection template.

The steps of each call guide determine its exact prerequisites. For details, see the documentation for each intended step.

Step	Action	Result

1.	At the main Administrative Console command prompt:
	
	Type **ACDC**.
		The console displays:
		
		`SELECT COMMAND => ACDC`
		
		`SELECT MODE: PRINT, DISPLAY, UPDATE, TITLES =>`

2.	Type **U**.	The console displays: `UPDATE MODE: C-Create; M-Modify; D-Delete ... =>`
3.	Type **C**.	The console displays: `SELECT SUBCOMMAND or ? ... =>`
4.	Type **C** (Call Guide).	The console displays: `CALL GUIDE NUMBER, A, U, or ? ... =>`
5.	Type the number for this call guide.	The console displays: `ENTER TITLE:... =>`
6.	Type an appropriate name for this call guide.	The console displays: `USER GROUP... =>`

7.	Type an appropriate user group number for this call guide.	The console displays:
		
		`*** Define Call Guide Parameters:`
		
		`PARAMETER 1 TYPE: I, D, Return=END, or ?... =>`

Step	Action	Result

8.	Enter appropriate information to define all of the parameters and variables that this call guide will need.
	
	See "Call Guide Parameters."
		After you define all integer and digit string parameters for the call guide, the console displays either:
		
		`PARAMETER N TYPE: I, D, Return=END, or ?... =>`
		
		`or`
		
		`VARIABLE N TYPE: I, D, IC, DC, L, Ret=END, ? ... =>`

9.	Press **<Enter>**.	The console displays:
		
		`*** Define Call Guide Steps:`
		
		`STEP 1 TYPE, L=LABEL, Return=END, or ?... =>`

10.	Define appropriate call guide steps in an order that supports your call guide design requirements. See "Call Guide Design Principles" and the documentation for each intended step.	After you define all steps for the call guide, the console displays: `STEP N TYPE, L=LABEL, Return=END, or ?... =>`
11.	Press **<Enter>**.	If your call guide contains logic errors or omissions, the console prompts you for corrections. When the call guide contains no errors, the console displays the entire call guide, with all steps in order, for verification. The display ends with: `DOES UPDATE VERIFY =>`
12.	Type **Y**. ⚠ **Caution!** If you type **N**, the system will not save the call guide. Even if the call guide is not complete or 100% accurate, saving it makes it available for future edits (see "Modify a Call Guide"). If you do not save the call guide, you must create it again from the beginning.	The system saves the call guide.

Modify a Call Guide

Use this procedure to modify an existing call guide, changing the instructions that specify how Automatic Call Distribution (ACD) processes calls, the parameters that the call guide uses, or both.

Step	Action	Result

1.	At the main Administrative Console command prompt:
	
	Type **ACDC**.
		The console displays:
		
		`SELECT COMMAND => ACDC`
		
		`SELECT MODE: PRINT,`
		`DISPLAY, UPDATE, TITLES`
		`=>`

2.	Type **U**.	The console displays:
		
		`UPDATE MODE: C-Create;`
		`M-Modify; D-Delete ...`
		`=>`

3.	Type **C**.	The console displays:
		
		`SELECT SUBCOMMAND or ?`
		`... =>`

4.	Type **C** (Call Guide).	The console displays:
		
		`CALL GUIDE NUMBER, A, U,`
		`or ? ... =>`

5.	Type the number of the existing call guide you will modify.
	
	Note
	
	Type A to see all of the assigned call guide numbers. Type U to see all numbers still available for call guides.
		The console displays:
		
		`MODIFY TYPE, RETURN=end,`
		`or ?... =>`

Step	Action	Result
6.	Type the code for an operation.	After making any change to the call guide, the console displays: `MODIFY TYPE, RETURN=end, or ?... =>`

Code	Operation
S	Show call guide
SA	Show abbreviated call guide
P	Print call guide
PA	Print abbreviated call guide
I	Insert a step
T	Modify title
R	Replace a step
UG	Modify user group

Code	Operation
D	Delete a step
V	Validate call guide

Or

Type the code to add, delete, or modify variables, parameters, or labels.

Code	Modification
IV	Modify integer variable
DV	Modify digit-string variable
IC	Modify integer constant
DC	Modify digit-string constant
SL	Modify step label
MC	Modify constants
RV	Remove a variable, constant, parameter, or a label

See "Call Guide Design Principles," "Call Guide Parameters", and the documentation for each intended step.

Step	Action	Result
7.	Repeat step 6 until you have made all intended changes to the call guide. Then press the <Enter> key.	If your call guide contains logic errors or omissions, the console prompts you for corrections.
		When the call guide contains no errors, the console displays the entire call guide, with all steps in order, for verification. The display ends with:
		`DOES UPDATE VERIFY =>`
8.	Type **Y**.	The system saves the changes and the console displays:
		`TABLE CHANGE PERFORMED`
		`** CALL GUIDE NNN is Saved`

Assign Call Guides to an ACD Pilot

Use this procedure to assign call guides to an ACD pilot.

Step	Action	Result

1.	At the main Administrative Console command prompt:
	
	Type **ACD**.
		The console displays:
		
		`SELECT COMMAND => ACD`
		
		`SELECT MODE: PRINT, DISPLAY, UPDATE, TITLES, CHANGES, ADMIN =>`

2.	Type **U**.	The console displays: `UPDATE MODE: C-Create; M-Modify; D-Delete ... =>`
3.	Type **M**.	The console displays: `PILOT DIRECTORY NUMBER or ? ... =>`
4.	Type the directory number for the pilot to modify.	The console displays: `USER GROUP... =>`
5.	Type the number for the user group associated with the pilot.	The console displays: `Specify ACD Field to Modify or - or ?... =>`

Step	Action	Result

6.	Type an appropriate response to specify the call guide to add or change.
	
	 <table><tr><td>**Type**</td><td>**To Assign or Change**</td></tr><tr><td>**CG1**</td><td>Call Guide 1</td></tr><tr><td>**CG2**</td><td>Call Guide 2</td></tr><tr><td>**CG3**</td><td>Call Guide 3</td></tr><tr><td>**CG4**</td><td>Call Guide 4</td></tr><tr><td>**NGC**</td><td>Night Call Guide</td></tr></table>
		If you specify a primary call guide, the console displays:
		
		`ENTER CALL GUIDE N NUMBER or`
		`N=NONE... =>`
		
		 If you specify the night call guide, the console displays:
		
		`NIGHT CALL GUIDE NUMBER or`
		`N=NONE... =>`

7.	Type the switch database number for the call guide that this pilot will use as either one of its four primary call guide or its night call guide.	The console displays:
		
		`Specify ACD Field to Modify`
		`or - or ?... =>`

8.	Repeat steps 6 and 7 until you have made all needed call guide assignments or changes.	
9.	Press **\<Enter\>**.	The console displays all of the parameters for the ACD pilot, followed by: `DOES UPDATE VERIFY =>`
10.	Type **Y.**	The system saves the call guide.

Chapter 2
Call Guide Steps and Commands

Each step in a call guide contains a single command. A step is different from a command in that it has a place in the ordered sequence of instructions in a call guide. Commands, however, provide the general call guide functions. Not every command is appropriate for any given step, depending on that step's relation to the commands in other steps. For example, a step can't contain an End Get Digits command if a previous step does not contain a Get Digits command. For most purposes, however, call guide steps and call guide commands as synonymous. As a convention, Aastra Inc. typically refers to call guide steps.

Each call guide command belongs to one general class based on its function.

Table 1. Call Guide Command Classes

Command Class	Description
Control	Determines the flow of a call through a call guide.
Error	Handles call guide processing errors.
Prompt	Obtains digits or other information from a caller.
Queue	Queues a call to groups of agents or discontinues queuing for a call.
OAI	Communicates directly with an external application over an Open Application Interface (OAI) channel. Such OAI applications can provide additional, custom call control capabilities.
Speech	Plays tones, speech, or other audio to a caller.
Other	Performs any other miscellaneous function.

Table 2 describes all of the available call guide commands.

Table 2. Call Guide Commands

Call Guide Command	Acronym	Class	Description
Agent Group	AGRP	Queue	Queues a call to an agent group pilot.
Agent/CallNet Super Group	ASGP	Queue	Begins a grouping of either Agent Group or CallNet steps, creating a super group.
Alarm	ALRM	Error	Displays a user-defined alarm or system error on a system console.
Announcement Pause	APAU	Speech	Inserts silence between two announcements or Integrated Voice Services (IVS) phrases.
Branch to Call Guide	BRCG	Control	Transfers call guide processing from the currently active call guide to another call guide.

Call Guide Command	Acronym	Class	Description
Call Guide Call	CGCL	Control	Transfers call guide processing from the currently active call guide to another call guide. Unlike the Branch to Call Guide step, Call Guide Call works with a Call Guide Return step to return processing to a step within the calling call guide.
Call Guide Return	CGRT	Control	Returns call guide processing to a calling call guide (one that transferred processing with a Call Guide Call step.
CallNet	CNET	Queue	Supports the overflow of ACD calls from one switch to an agent group pilot on another switch.
Connect IVR	CIVR	Speech	Acquiring an announcement trunk, makes a two-way connection between a caller and an external interactive voice response (IVR) unit.
CPN/ANI Routing	CART	OAI	Notifies an external application that the switch is processing a call, passing Calling Party Number (CPN) and Automatic Number Identification (ANI) information.
De-queue Call	DQUE	Queue	Removes the call being processed from one or more current queues.
Disconnect Call	DISC	Control	Terminates the call that the switch is currently processing.
Do	DO	Control	Indicates the beginning of a Do/Repeat block, which allows a call guide to repeat a series of steps.
Else	ELSE	Control	An optional component of an If/Else/End If block, which defines conditional call processing.
End Agent/CallNet Super Group	ENDA	Queue	Ends a grouping of either Agent Group steps or CallNet steps.
End Get Digits	ENDG	Prompt	Indicates the end of a Get Digits process.
End If	ENDF	Control	A component of an If/Else/End If block, which defines conditional call processing.
Forward Call	FWRD	Control	Forwards a call.
Get Digits	GDGT	Prompt	Initiates the collection of one or more digits from a caller and passes the collected digits to a variable.
Goto	GOTO	Control	Redirects processing to another call guide step.

Call Guide Command	Acronym	Class	Description
If	IF	Control	Initiates an If/Else/End If block, which defines conditional call processing.
Mark-as-Answered	MANS	Other	Causes the switch to treat an ACD call statistically as answered.
Play Tone	PLTN	Speech	Plays a continuous or fixed-length tone to a caller.
Repeat	REPT	Control	Indicates the end of a Do/Repeat block, which allows a call guide to repeat a series of steps.
Set	SET	Control	Initializes or changes a variable.
Speak Announcement	SANN	Speech	Acquiring an announcement trunk, makes a one-way connection between a caller and an external IVR unit.
Speak Annunciator Message	SANU	Speech	Makes a one-way connection with an annunciator that plays a message to a caller.
Speak Broadcast Message	SBRO	Speech	Makes a one-way connection with a broadcast trunk that plays a message to a caller.
Speak IVS Data	SDAT	Speech	Plays a single variable or value to a caller, translating data values into audio phrases.
Speak IVS Phrase	SPHR	Speech	Plays a phrase from an internal IVC device to a connected caller.
Wait	WAIT	Control	Inserts a delay before call guide processing continues to the next step.

Agent Group Step

An Agent Group (AGRP) call guide step identifies a group of agents to handle ACD calls. When a switch receives a call to an ACD steering pilot, the active call guide for that steering pilot uses an Agent Group step to route the call to the agent group based on the pilot directory number that the step identifies. Call guides can contain multiple Agent Group steps to support complex call routing. See "Call Guide Design Principles."

The Agent Group step also sets parameters for the ACD Overflow capability. Overflow distributes calls in queue to alternative pilots when none of the agents in a primary pilot are available.

Table 3. Agent Group Step Parameters

Parameter	Function	Parameter Types Allowed
Agent Group Pilot	Identifies an agent group pilot to handle ACD calls. The value of this parameter must be an existing pilot directory number. The system console will notify you if you select an ACD pilot number that is not in the switch database.	Fixed Value
Agent Group Pilot User Group	Defines, by number, the user group associated with the agent group pilot. (A unique combination of a user group number and directory number reference each agent group pilot.)	• Fixed value • User-defined constant
Priority	Defines a priority level from 0 to 7 for any call to the pilot that gets placed in queue. The switch routes the call in queue with the highest priority level to an agent before routing other calls. The switch ignores priority queuing for all calls with an unspecified or negative priority level. A pilot group can receive calls of different priority levels from different steering pilots. For example, calls from a steering pilot for sales may get higher priority than calls from a steering pilot for information.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function

Parameter	Function	Parameter Types Allowed
Overflow Type	Defines call overflow. <table><tr><td>**Restriction**</td><td>**Description**</td></tr><tr><td>None</td><td>No overflow restriction.</td></tr><tr><td>Dynamic Overflow</td><td>Overflow occurs as defined by the Dynamic Overflow Type parameter, modified by the Adjustment for Average Time value.</td></tr><tr><td>Queue Depth Overflow</td><td>Overflow occurs only if the number of calls in queue for a pilot exceeds the value of the Queue Depth parameter.</td></tr><tr><td>Agent Percentage Overflow</td><td>Overflow occurs only if the percentage of available agents exceeds the value of the Agent Percentage parameter.</td></tr></table>	The value of this parameter is a fixed selection in the call guide.

Parameter	Function	Parameter Types Allowed
Dynamic Overflow Type	Defines dynamic call overflow. Overflow occurs only when the selected statistic exceeds the duration of the Adjustment for Average Time parameter. **Statistic / Description table below**	The value of this parameter is a fixed selection in the call guide.

Nested table within Dynamic Overflow Type:

Statistic	Description
Average Call Abandon Time	The average time after which a caller hangs up before an agent answers. This average excludes all calls that a caller ends within the duration of the short abandon threshold.
Average Call Queue Duration	The average length of time that a call remains in queue before the switch routes the call to an available agent.
Average Call Answer Time	The average length of time that a call remains in queue before being answered by an ACD agent.
Average Call Overflow Time	The average length of time that a call remains in queue for this pilot before the switch routes it to an overflow pilot.

Parameter	Function	Parameter Types Allowed
Adjustment for Average Time	A number of seconds, from + or - 0 to 127, that sets the threshold for the statistic that Dynamic Overflow uses to activate overflow.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function
Queue Depth	A number, from 1 to 65535, that sets the threshold that Queue Depth Overflow uses to activate overflow. The switch activates overflow when the number of calls in queue exceeds this value.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function

Parameter	Function	Parameter Types Allowed
Agent Percentage	A percentage, from 1% to 99%, that sets the threshold that Agent Percentage Overflow uses to activate overflow. The switch activates overflow when the percentage of agents in the pilot who are signed on and available is less than this value.	• Fixed value • User-defined constant • User-defined variable • System variable • Pre-defined function

Agent/CallNet Super Group Step

An Agent/CallNet Super Group (ASGP) call guide step begins a grouping of either Agent Group steps or CallNet steps. A switch treats all agent group pilots or CallNet pilots between the Agent/CallNet Super Group step and an End Agent/CallNet Super Group (ENDA) step as a single large group. In this way, the switch combines agent group pilots or CallNet pilots to create larger groups (super groups).

When the system processes an Agent/CallNet Super Group step, it queues the involved call to all of the agent group pilots or CallNet pilots that are part of the super group. It then selects the agent who has been idle longest to handle the call.

The switch applies overflow based on the parameters in the associated Agent Group (AGRP) or CallNet (CNET) steps. Typically, all Agent Group or CallNet steps in a super group have the same overflow parameters. However, if the overflow parameters are different for different Agent Group or CallNet steps, the switch excludes any super group members that prevent overflow based on current conditions.

An Agent/CallNet Super Group command has no parameters.

Alarm Step

An Alarm (ALRM) call guide step displays a user-defined alarm on the system console for a PointSpan switch. It can also display any other error that the system passes to error handling step in the call guide. See "Call Guide Error Handling" for more information.

Table 4. Alarm Step Parameters

Parameter	Function	Parameter Types Allowed
Error Code	Defines an integer value from 1 to 1999 that a user can use to reference a problem in call guide processing. Aastra Inc. reserves error codes 1 through 999 for call guide processing errors. Error codes 1000 through 1999 are available for user-defined alarms.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function

Announcement Pause Step

An Announcement Pause (APAU) call guide step inserts silence between two announcements or Integrated Voice Services (IVS) phrases.

Table 5. Announcement Pause Step Parameters

Parameter	Function	Parameter Types Allowed
IVS Group	Assigns an IVS group, by number, to play the pause.	• Fixed value • User-defined constant
Phrase Duration	Defines the length of the pause, from ten milliseconds to ten minutes, in millisecond increments, rounded to the nearest ten milliseconds. For example, a value of 1000 indicates a pause of one second and a value of 502 indicates a one-half second pause.	• Fixed value • User-defined constant • User-defined variable • System variable • Pre-defined function
Agent Available Interrupt	When this option is enabled, the system can interrupt the silent pause to route the call to an available agent. Otherwise, when this option is not enabled, the system must complete the silence for its entire phrase duration before routing the call to an available agent. By default, the system enables this option.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function

Note

If the system cannot process an Announcement Pause step (because no IVC device is available or for any other reason), it immediately skips the step and processes the next step in the call guide. It does not perform error handling.

Branch to Call Guide Step

A Branch to Call Guide (BRCG) step transfers call guide processing from the currently active call guide to another call guide. Processing continues at the *beginning* of the call guide to which branching directs it. To branch to another call guide but return to a step *within* the branching call guide (rather than its beginning), use the Call Guide Call and Call Guide Return steps. A Branch to Call Guide step does not remove a call that has already been queued to an agent group or CallNet group.

By combining If steps with Branch to Call Guide steps, a call guide can easily define sophisticated conditional processing.

Table 6. Branch to Call Guide Step Parameters

Parameter	Function	Parameter Types Allowed
Call Guide Number	Identifies the call guide to which branching directs further call guide processing. The number for the target call guide is an integer value from 1 to 65535 that matches the number of an existing call guide in the switch database. If the database does not contain a call guide with a number that matches this parameter value, the switch plays a reorder tone to the caller and ends the call after reaching a system time limit.	• Fixed value • User-defined constant • User-defined variable • System variable • Pre-defined function
List of Arguments	Defines up to 12 arguments (user-defined variables) that the branching call guide passes to the target call guide. Each argument provides a value, either an integer or a digit string, for a parameter defined in the target call guide. The type of each argument, whether an integer or a digit string, must match the type of its associated parameter. If the current call guide has not initialized the value of a user-defined variable, the switch passes a value of 0 for an un-initialized integer or a value of "Null" for an un-initialized digit string. The switch associates arguments in the Branch to Call Guide step to parameters in the target call guide based on their order of declaration. It passes the first argument to the first parameter, the second argument to the second parameter, and so on. With this method, a switch does not require that the name of a variable passed by an argument matches the name of the associated variable in the target call guide. If the arguments of a Branch to Call Guide step do not match the parameters of the target call guide, the switch plays a reorder tone to the caller and ends the call after reaching a system time limit.	User-defined variable

Call Guide Call Step

A Call Guide Call (CGCL) step, like a Branch Call Guide step, transfers call guide processing from the currently active call guide to another call guide. Processing continues at the beginning of the called call guide. Unlike a Branch Call Guide step, however, Call Guide Call works with a Call Guide Return step to return processing to a step *within* the calling call guide. A Call Guide Call step does not remove a call that has already been queued to an agent group or CallNet group.

The Call Guide Call function allows call guides to perform common functions, such as overflow processing, without duplicating the steps for that function. Whenever a call guide requires one of these common processes, it can call another call guide that specifically performs that common process. Call guides that provide specialized functions can be shared by many call guides. A call from one call guide to another is similar to a subroutine call in a programming language.

By combining If steps with Call Guide Call steps, a call guide can define sophisticated conditional processing.

Table 7. Call Guide Call Step Parameters

Parameter	Function	Parameter Types Allowed
Call Guide Number	Identifies the called call guide with an integer value from 1 to 65535 that matches the number of an existing call guide in the switch database. If the database does not contain a call guide with a number that matches this parameter's value, the switch plays a reorder tone to the caller and ends the call after reaching a system time limit.	Fixed value, user-defined constant, user-defined variable, system variable, pre-defined function.

Parameter	Function	Parameter Types Allowed
List of Arguments	Defines up to 12 arguments (user-defined variables) that the calling call guide passes to the called call guide. Each argument provides a value, either an integer or a digit string, for a parameter defined in the called call guide. The type of each argument, whether an integer or a digit string, must match the type of its associated parameter. If the calling call guide has not initialized the value of a user-defined variable, the switch passes a value of 0 for an un-initialized integer or a value of "Null" for an un-initialized digit string. The switch associates arguments in the Call Guide Call step to parameters in the called call guide based on their order of declaration. It passes the first argument to the first parameter, the second argument to the second parameter, and so on. With this method, a switch does not require the name of a variable passed by an argument to match the name of the associated variable in the called call guide. If the arguments of a Call Guide Call step do not match the parameters of the called call guide, the switch plays a reorder tone to the caller and ends the call after reaching a system time limit.	User-defined variable
Update Control for Each Argument	Determines for each argument whether the called call guide or any subsequently called call guides can update its value. The valid values for this parameter are "updateable" and "read-only." Called call guides cannot update the value of any read-only parameter.	The value of this parameter is a fixed selection in the call guide.

Call Guide Return Step

A Call Guide Return (CGRT) call guide step returns call guide processing to a calling call guide (one that transferred processing with a Call Guide Call step). The Call Guide Return step is included in the *called* call guide. Processing continues with the step immediately following the Call Guide Call step in the *calling* call guide. A Call Guide Return step does not remove a call that has already been queued to agent groups or CallNet groups. A De-queue step immediately before the Call Guide Return step, however, removes a call from agent group or CallNet group queues, allowing the called call guide to queue calls to different groups. A call guide can contain any number of Call Guide Return steps, which can provide conditional exits or a last step.

If a switch processes a Call Guide Return step in a call guide that it did not access through a Call Guide Call step, it performs error handling. See "Call Guide Error

Handling" for more information. As a simple resolution, the error handling section can return processing to the step immediately following the Call Guide Return step.

After a switch processes a Call Guide Return step, it releases any memory it allocated for the variables in the called call guide.

A Call Guide Return step has no parameters.

CallNet Step

A CallNet (CNET) call guide step supports the overflow of ACD calls from one switch to an agent group pilot on another switch. A directory number for an agent pilot associated with a Satellite Directory Group defines the CallNet overflow destination. CallNet enables a switch to overflow calls to one or more remote switches while maintaining calls in queue for agents on the local switch.

Table 8. CallNet Step Parameters

Parameter	Function	Parameter Types Allowed
Satellite Directory Group (SDGP) Number	Identifies a Satellite Directory Group to direct the ACD calls to another switch. The value of this parameter is a fixed SDGP group number. The system console notifies you if the SDGP group number is not in the switch database. **Note** The Satellite Directory Group must support ACD CallNet calls. See "Enable Satellite Directory Group to Support ACD CallNet Calls."	Fixed value
Destination Number	Defines the number that the switch, based on the SDGP, outpulses over a trunk to route calls to agents on a remote switch. An associated Prefix Digit Table (PDT) determines which of the destination number digits the switch outpulses. A destination number cannot exceed 16 digits.	Fixed value, pre-defined constant, user-defined constant, user-defined variable, system variable, pre-defined function

Parameter	Function	Parameter Types Allowed
Priority	Defines a priority level from 0 to 7 for any call to the pilot that gets placed in queue. The switch routes the call in queue with the highest priority level to an agent before routing other calls. A switch ignores priority queuing for all calls with an unspecified or negative priority level. A pilot group can receive calls of different priority levels from different steering pilots. For example, calls from a steering pilot for sales may get higher priority than calls from a steering pilot for information.	Fixed value, pre-defined constant, user-defined constant, user-defined variable, system variable, pre-defined function
Send ANI/CPN To Destination	Controls whether the CallNet step transmits Automatic Number Identification (ANI) and Calling Party Number (CPN) information to the destination. Valid values are Y (yes) or N (no). See "ANI and CPN Transmission to CallNet Destination."	Fixed value
Overflow Type	Defines call overflow.<table><tr><th>Restriction</th><th>Description</th></tr><tr><td>None</td><td>No overflow restriction.</td></tr><tr><td>Dynamic Overflow</td><td>Overflow occurs as defined by the Dynamic Overflow Type parameter, modified by the Adjustment for Average Time value.</td></tr><tr><td>Queue Depth Overflow</td><td>Overflow occurs only if the number of calls in queue for a pilot exceeds the value of the Queue Depth parameter.</td></tr></table>	The value of this parameter is a fixed selection in the call guide.

Parameter	Function		Parameter Types Allowed
Dynamic Overflow Type	Defines dynamic call overflow. Overflow occurs only when the selected statistic exceeds the duration of the Adjustment for Average Time parameter.		The value of this parameter is a fixed selection in the call guide.
	Statistic	**Description**	
	Average Call Abandon Time	The average time after which a caller hangs up before an agent answers. This average excludes all calls that callers end before the short abandon threshold.	
	Average Call Queue Duration	The average length of time that a call remains in queue before the switch routes the call to an available agent.	
	Average Call Answer Time	The average length of time that a call remains in queue before being answered by an ACD agent.	
	Average Call Overflow Time	The average length of time that a call remains in queue for this pilot before the switch routes it to an overflow pilot.	
Adjustment for Average Time	A number of seconds, from + or - 0 to 127, that sets the threshold for the statistic that Dynamic Overflow uses to activate overflow.		• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function
Queue Depth	A number, from 1 to 65535, that sets the threshold that Queue Depth Overflow uses to activate overflow. The switch activates overflow when the number of calls in queue exceeds this value.		• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function

ANI and CPN Transmission to CallNet Destination

A CallNet call guide step can send the Automatic Number Identification (ANI) and Calling Party Number (CPN) of a queued ACD call to a CallNet destination. The CallNet step's "Send ANI/CPN to Destination" parameter, set to either Y (yes) or N (no), controls this capability.

When the system processes a CallNet step that enables the transmission of ANI and CPN information, it first selects an ACD call that is already in queue. The system does not select a call unless conditions meet all dynamic overflow restrictions, if any. Also, the call can not be one that the system has already queued *with ANI information* to a CallNet destination. After selecting an appropriate call, the system initiates an ANI-associated CallNet system call, sending the ANI and CPN information in call setup signaling.

Despite its selection as an ANI-associated system call, the ACD call remains available for answer by all agent groups to which it has been queued. Any agent group to which the ACD call has been queued can answer the call. The CallNet destination that received ANI information can also answer the call. Other CallNet destinations can not.

When a remote CallNet agent answers the call, the system removes the call from queue. When any agent other than a remote CallNet agent answers the call, the system cancels the CallNet system call.

Note

A CallNet step enables ANI transmission to a CallNet *destination*. After processing a CallNet step that enables ANI transmission, the system sends ANI information to that destination *every time* it makes a CallNet system call to that destination, not only when it processes the specific CallNet step.

Effect of CallNet Super Groups on ANI Transmission

An Agent/CallNet Super Group step groups two or more CallNet steps (creating a super group). A switch treats all CallNet destinations in a super group as a single large group. See "Agent/CallNet Super Group Step" for details.

The system analyzes all of the CallNet destinations in a super group before beginning an ANI-associated CallNet system call. If all of the CallNet destinations in a super group have reached their maximum capacity for CallNet system calls (as defined in the destination's Satellite Directory Group parameters), the system queues the ACD call to each CallNet destination in the super group. It neither initiates a CallNet system call nor forwards ANI information to the destinations. If, however, at least one of the CallNet destinations in a super group has not reached its maximum capacity for CallNet system calls, the system initiates the system call, sending ANI information to the destination. When more than one of the CallNet destinations in a super group is available, the system selects the destination with the shortest estimated time until answer. The system applies the following formula for each destination and compares the results:

```
Estimated Time Until Answer =
(Number of active CallNet system calls at the destination)
X
(PCI % for the destination)
```

The Percentage for Calls to Interflow (PCI) is a Satellite Directory group parameter.

Note

When a call guide includes two or more ANI-enabled CallNet steps that are not in a super group, the system cannot ensure proportional distribution. Including CallNet steps that do not enable ANI transmission in a super group has no effect (because the system does not include those CallNet steps in calculations and can not initiate ANI-associated CallNet system calls for those destinations).

System Variables that Support Sending ANI and CPN to CallNet Destinations

The following system variables support this capability:

• CPNSCRN

• CPNPRES

• CPNPLAN

• CPNTYPE

• CPNDGTS

• CPNIDGTS

See "System Variable Call Guide Parameters" for details.

Enable Satellite Directory Group to Support ACD CallNet Calls

Use this procedure to modify a Satellite Directory Group to support CallNet steps in call guides. A CallNet step must specify an appropriate Satellite Directory Group associated with intended CallNet destinations.

Step	Action	Result

1.	At the main Administrative Console prompt:
	
	Type **SDGP** (Satellite Directory Group).
		The console displays:
		
		`SELECT COMMAND => SDGP`
		
		`SELECT MODE: PRINT, DISPLAY, UPDATE, TITLES... =>`

2.	Type **U**.	The console displays: `UPDT MODE: C-Create; M-Modify; D-Delete... =>`
3.	Type **M**.	The console displays: `SATELLITE DIRECTORY NUMBER... =>`
4.	Type the number of the Satellite Directory Group that will direct CallNet calls to destinations on a remote switch.	The console displays: `Specify SDGP Field to Modify or - or ?... =>`

Step	Action	Result

5.	Type **MIN**.	The console displays:
		
		`MINIMUM OF QUEUED CALLS`
		`(1-65535)... =>`

6.	Type the minimum number of pending calls that the Satellite Directory Group will route to a CallNet destination.
	
	This parameter ensures the system always routes at least a few calls to an available remote CallNet destination, preventing idle times and making CallNet agents available for calls that might otherwise remain in queue.
		The console displays:
		
		`Specify SDGP Field to Modify`
		`or - or ?... =>`

7.	Type **MAX**.	The console displays:
		
		`MAXIMUM OF QUEUED CALLS`
		`(1-65535)... =>`

8.	Type the maximum number of calls that the Satellite Directory Group will route to a CallNet destination.	The console displays:
		
		`Specify SDGP Field to Modify`
		`or - or ?... =>`

9.	Type **PCI** (Percent CallNet Interflow).	The console displays:
		
		`% OF QUEUED CALLS TO CallNet:`
		`(1-100)... =>`

10.	Type a percentage value that sets the maximum percentage of all ACD calls that can be pending (queued) at a CallNet destination. CallNet destinations with higher PCI values receive proportionally more calls.
	
	The system multiplies this value with the total number of calls queued to a CallNet destination to calculate shortest estimated time until answer.
		The console displays:
		
		`Specify SDGP Field to Modify`
		`or - or ?... =>`

11.	Press the <Return> key.	The console displays the parameters for the Satellite Directory Group, followed by: `DOES UPDATE VERIFY?`
12.	Type **Y.**	The systems saves the parameters.

Connect IVR Step

A Connect IVR (CIVR) call guide step acquires an announcement trunk from a specified group and connects a caller to an external interactive voice response (IVR) unit. Because the connection is two-way, the IVR unit can receive and respond to outpulsed dual-tone

multi-frequency (DTMF) digits from the caller. A Connect IVR step, using a Prefix Digit Table (PDT), can automatically send pilot number, queue time, or calling party number to a connected IVR.

Table 9. Connect IVR Step Parameters

Parameter	Function	Parameter Types Allowed
Announcement Trunk Group	Assigns the announcement trunk group, by number, to which the external IVR unit is associated.	• Fixed value • User-defined constant
Prefix Digit Table (PDT)	Assigns the PDT, by number, that contains the information that the switch sends to the IVR. If the value of this parameter is 0, the Connect IVR step does not provide a pilot number, queue time, or calling party number to the associated IVR.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function
Wait Time for Announcement Trunk	Defines the duration that the system waits for an announcement trunk to become available. Valid values include: Value / Description table: 1-255: The duration of the wait, in seconds. The default is ten seconds. 0: The system will not wait for an available trunk; it immediately proceeds to the call guide step when no announcement trunk is available. -1: Indicates "no timing;" the system waits indefinitely for an announcement trunk to be available.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function
Unavailable Announcement Trunk Step	Defines a call guide step to which the system will proceed if no announcement trunk becomes available within the wait time. This parameter can specify either a step number, a step label, or "Next." Next instructs the system to execute the call guide step that immediately follows the Connect IVR step.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function • Label

Parameter	Function	Parameter Types Allowed
Agent Interrupt	Enables or disables interruption of the IVR unit when an agent becomes available to answer the call.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function

CPN/ANI Routing Step

A CPN/ANI Routing (CART) call guide step notifies an external application that the switch is processing a call. It also passes the Calling Party Number (CPN) and Automatic Number Identification (ANI) information for the call to the application. The switch uses an Open Application Interface (OAI) channel to communicate with the external application. Based on the information it gets from the switch, the external application can either route the call to another destination or allow the switch to continue call processing with the current call guide.

For more information on CPN/ANI routing, see "Trunking" in the PointSpan *System Database Procedures* manual (2513-*nnn*).

Table 10. CPN/ANI Routing Step Parameters

Parameter	Function	Parameter Types Allowed
OAI Channel	Identifies, by number, the OAI channel through which the switch will provide ACD call, CPN, and ANI information to an external application. If the value of this parameter is -1 or is not provided: • The switch uses the OAI channel associated with the called pilot, if applicable *or* • The switch performs error handling; see "Call Guide Error Handling" for information	• Fixed value • User-defined constant • User-defined variable • System variable • Pre-defined function

Parameter	Function	Parameter Types Allowed
OAI Application	Identifies the external application that will receive the ACD call, CPN, and ANI information across the OAI channel. If the value of this parameter is -1 or is not provided: • The switch uses the OAI application associated with the called pilot, if applicable *or* • The switch performs error handling; see "Call Guide Error Handling" for information	• Fixed value • User-defined constant • User-defined variable • System variable • Pre-defined function
OAI Channel Down Step	Defines a call guide step to which the system will proceed if the OAI channel is down and the switch cannot send the call information to the external application. This parameter can specify either a step number, a step label, or "Next." Next instructs the system to execute the call guide step that immediately follows the CPN/ANI Routing step.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function • Label

De-queue Call Step

A De-queue Call (DQUE) call guide step removes the call being processed from one of the following:

- The queue for a single agent group pilot, where agents are local to the switch.

- The queue for a single CallNet Satellite Directory Group (SDGP), where agents are supported by a remote switch.

- The queues for all of the agent group pilots and CallNet groups in the current call guide.

- The queues for all agent group pilots and CallNet groups to which the call is queued (including queuing by other call guides).

After removing a call from queues, the switch continues processing the call, either offering the call to other agent groups, playing announcements, requesting that the caller leave a message, or otherwise handling the call.

Table 11. DeQueue Call Step Parameters

Parameter	Function	Parameter Types Allowed
Group Selection	Identifies the group of agents from which the switch will remove the call from queue. The available values for this parameter are: • The queue for a single agent group pilot (as identified in the Agent Group Pilot and Agent Group Pilot User Group parameters). • The queue for a single CallNet Satellite Directory Group (as identified in the CallNet Satellite Directory Group and CallNet Satellite Destination Number parameters). • The queues for all the agent group pilots and CallNet groups in the current call guide. • The queues for all the agent group pilots and CallNet groups to which the call is queued, regardless of which call guide queued the call.	The value of this parameter is a fixed selection in the call guide.
Agent Group Pilot	Identifies the single agent group pilot from which the switch will remove the call from queue. This parameter is only available when the Group Selection parameter indicates a single agent group pilot.	• Fixed value • User-defined constant
Agent Group Pilot User Group	Identifies the user group number associated with the Agent Group Pilot parameter. This parameter is only available when the Group Selection parameter indicates a single agent group pilot.	• Fixed value • User-defined constant
CallNet Satellite Directory Group	Identifies the single CallNet group from which the switch will remove the call from queue. This parameter is only available when the Group Selection parameter indicates a single CallNet group.	• Fixed value • User-defined constant

Disconnect Call Step

A Disconnect Call (DISC) call guide step terminates the call that the switch is currently processing. Specifically, this step:

1. Removes the call from all agent group and CallNet group queues.

2. Disconnects the call from any announcements.

3. Removes the call from call guide processing.

4. Disconnects the call (hangs up).

A Disconnect Call step has no parameters.

Do Step

A Do (DO) call guide step indicates the beginning of a Do/Repeat block, which allows a call guide to repeat a set of steps before advancing to other steps. When processing a Do step for the first time, a switch sets a repeat counter for the Do/Repeat block to 0 (zero). Upon reaching the Repeat step, the switch increments the repeat counter by one (from 0 to 1, 1 to 2, and so on). If the repeat counter matches the value of the Repeat step's Repeat Count parameter, processing advances past the Do/Repeat block to the next step in the call guide. Otherwise, processing returns to the beginning of the Do/Repeat block (the Do step) and process all the steps from the Do to the Repeat again.

A Do/Repeat block can contain up to 16 steps. If a Do/Repeat block contains more than 16 steps, the switch performs error handling (see "Call Guide Error Handling").

 Caution!

Using a Goto step to access a step within a Do/Repeat block may have undesirable results.

See "Repeat Step" for more details.

A Do step has no parameters.

Else Step

An Else (ELSE) call guide step, used optionally in an If/Else/End If block, defines conditional call processing in a call guide. An If step compares two values and applies conditional logic. If the condition is true, call guide processing continues with the step immediately following the If step. If the condition is false, call guide processing continues with the step immediately following the block's optional Else step. If the IF/Else/End If block does not contain an Else step, processing continues with the step immediately following the block's End If step.

For more information, see "If Step."

An Else step has no parameters.

End Agent/CallNet Super Group Step

An End Agent/CallNet Super Group (ENDA) call guide step ends a grouping of either Agent Group steps or CallNet steps. A switch treats all agent group pilots or CallNet pilots between the Agent/CallNet Super Group step and an End Agent/CallNet Super Group (ENDA) step as a single large group. In this way, the switch combines agent group pilots or CallNet pilots to create larger groups (super groups).

See "Agent/CallNet Super Group Step" for details.

An End Agent/CallNet Super Group command has no parameters.

End Get Digits Step

An End Get Digits (ENDG) call guide step indicates an end of a Get Digits process. A Get Digits/End Get Digits block allows the system to group any of the following steps, which may fall between a Get Digits and an End Get Digits step:

- Speak IVS Phrase

- Speak IVS Data

- If / Else / And If

- Announcement Pause

- Set

An End Get Digits step has no parameters.

End If Step

An End If (ENDF) call guide step, used in an If/Else/End If block, defines conditional call processing in a call guide. An If step compares two values and applies conditional logic. If the condition is true, call guide processing continues with the step immediately following the If step. If the condition is false, call guide processing continues with the step immediately following the block's optional Else step. If the IF/Else/End If block does not contain an Else step, processing continues with the step immediately following the block's End If step.

For more information, see "If Step."

An End If step has no parameters.

Forward Call Step

A Forward Call (FWRD) call guide step forwards a call to a destination number, such as an ACD pilot directory number or an off-switch number. When processing a Forward Call step, a switch removes a call from all of the agent groups and CallNet groups to which the call is queued, then routes the call to the specified forwarding destination.

By combining If steps with Forward Call steps, a call guide can define sophisticated conditional call forwarding.

Table 12. Forward Call Step Parameters

Parameter	Function	Parameter Types Allowed
Destination Number	Provides the number (a string of up to 28 digits) to which the switch will forward calls. If the switch cannot forward the call to the destination number (because, for example, the number does not exist), it plays a reorder tone to the caller and ends the call after reaching a system time limit. **Note** Off-switch numbers and some other special numbers require an appropriate access code to select the dialing level and prefix digits to define the type of dialed number. For example, the destination number may need to begin with 9 to access off-switch dialing.	• Fixed value • User-defined constant • User-defined variable • System variable • Pre-defined function

Get Digits Step

A Get Digits (GDGT) call guide step initiates the collection of one or more digits from a caller and passes the collected digits to a variable. Collected digits can be either a digit string or an integer. The system passes each digit string (such as an account number or pass code) directly to a string variable. The system converts digits that represent an integer value (such as a monetary value) and passes them to an integer variable.

An End Get Digits step must always follow a Get Digits step. The following steps, however, can occur between a Get Digits and End Digits step:

• Speak IVS Phrase (with the same IVS group as the Get Digits step)

• Speak IVS Data (with the same IVS group as the Get Digits step)

• If / Else / End If

• Announcement Pause

• Set

The system groups all steps between a Get Digits and End Digits steps, playing them as a single prompt announcement after it begins collecting digits.

Note

An Administrative Console does not prompt for an IVS group for any steps between a Get Digits and an End Get Digits step. Such steps inherit the IVS group from the Get Digits step.

Table 13. Get Digits Step Parameters

Parameter	Function	Parameter Types Allowed
IVS Group	Assigns an IVS group, by number. The system uses an IVC device associated with this IVS group to collect DTMF digits.	• Fixed value • User-defined constant
Wait Time for IVS Device	Defines the time the system waits for an IVC device to become available. Valid values include: | Value	Description
---	---
1-255	The duration of the wait, in seconds.
0	The system will not wait for an available device; it immediately proceeds to the call guide step when no IVC group is available.
-1	Indicates "no timing;" the system waits indefinitely for an IVC device to be available.		• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function
Unavailable IVS Device Step	Defines a call guide step to which the system will proceed if no IVC device becomes available within the wait time. This parameter can specify either a step number, a step label, or "Next." Next instructs the system to execute the call guide step that immediately follows the End Get Digits step.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function • Label
Digit Collection Template	Defines a digit collection template, by number, that specifies the number of digits to collect, digit validation information, terminator digits, and inter-digit timing information. See "Digit Collection" for more information.	• Fixed value • User-defined constant • User-defined variable • System variable • Pre-defined function

Parameter	Function	Parameter Types Allowed
Digit Collection Variable	Defines the variable that stores collected digits.	• User-defined variable • System variable **Note** The variable type must support the type of digits being collected (as defined in the digit collection template): • Integer Variable • Integer Constant • Digit String Variable • Digit String Constant
Default Digits	Defines a digit string or a "null" value as the default digits if the system does not collect digits for a call. When this parameter specifies "null" as the default, the system sets integers to zero (0) and digit strings to "null."	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function
No Digit Entered Step	Defines a call guide step to which the system will proceed if it does not collect digits for a call. This parameter can specify either a step number, a step label, or "Next." Next instructs the system to execute the call guide step that immediately follows the End Get Digits step.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function • Label
Invalid Digit Entered Step	Defines a call guide step to which the system will proceed if it collects invalid digits for a call. This parameter can specify either a step number, a step label, or "Next." Next instructs the system to execute the call guide step that immediately follows the End Get Digits step.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function • Label
Announcement Prompt Interrupt	Enables or disables interruption of an announcement or phrase in progress when the system receives a digit.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function

Goto Step

A Goto (GOTO) call guide step redirects processing to another specific call guide step. Typically, a switch processes the steps in a call guide in sequential order. A Goto step interrupts sequential processing.

When used with If steps, a Goto step allows a call guide to include conditional blocks, using the Goto to bypass certain steps. In such structures, a Goto step typically redirects processing to a step that occurs later in the call guide. A Goto step can also return to a previous step in a call guide, creating a loop. A Do/Repeat block, however, is typically better for such recursive processing. Unlike a Do/Repeat block, Goto offers no means to exit the loop without conditional If statements that allow processing to continue past the Goto step.

Table 14. Goto Step Parameters

Parameter	Function	Parameter Types Allowed
Step to Branch to	Specifies the exact step to which call guide processing will continue. Examples include: • `GOTO 115` (Processing jumps to step number 115 in the call guide) • `GOTO LABEL1` (Processing jumps to the step represented by Label1) • `GOTO VAR35` (Processing jumps to the step number that matches the value of the variable VAR35) The system console validates that a fixed value or label is a valid target for a Goto step. It cannot validate variables. If the switch processes a Goto step with a variable that specifies an invalid target step, it performs error handling. See "Call Guide Error Handling."	• Fixed value • User-defined constant • User-defined variable • System variable • Pre-defined function • Label

If Step

An If (IF) call guide step begins an If/Else/End If block, which defines conditional call processing in a call guide. An If step compares two values and applies conditional logic. If the condition is true, call guide processing continues with the step immediately following the If step. If the condition is false, call guide processing continues with the step immediately following the block's optional Else step. If the IF/Else/End If block does not contain an Else step, processing continues with the step immediately following the block's End If step.

An If/Else/End If block contains other, nested steps. Nested steps can even include other End/Else/End If blocks. When such blocks are nested, the system associates If, Else, and End If steps by their order (level of *nesting*). For example, the first If step is associated

with the last Else and End If steps, the second If step is associated with the second to the last Else and End If steps, and so on.

The following example shows nested If/Else/End If blocks:

```
If (first block)
    If (second block)
        If (third block)
        Else (third block)
        End If (third block)
    Else (second block)
    End If (second block)
Else (first block)
End If (first block)
```

Table 15. If Step Parameters

Parameter	Function	Parameter Types Allowed
Value 1	Identifies the first of the two values the switch compares to determine if the If step's condition is true or false. **Note** The Value 1 and Value 2 parameters must be the same parameter type.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function • Label

Parameter	Function	Parameter Types Allowed
Condition	Defines the condition for the If step as one of the following relational expressions: • Equal to (=) • Not equal to (<>) • Less than (<) • Less than or equal to (<+) • Greater than (>) • Greater than or equal to (>=) When comparing digit strings, a switch applies the following ranking, from lowest to highest: **`0, 1, 2, 3, 4, 5, 6, 7, 8, 9, *, #`** For example, the string "#11" is greater than "811." A switch always treats longer digit strings as greater than shorter digit strings (the string "1001" is greater than the string "999"). When comparing labels, a switch compares the step number that the label represents (not the label name).	The value of this parameter is a fixed selection in the call guide.
Value 2	Identifies the second of the two values the switch compares to determine if the If step's condition is true or false. **Note** The Value 1 and Value 2 parameters must be the same parameter type.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function • Label

Mark-as-Answered Step

A Mark-as-Answered (MANS) call guide step causes the switch to treat the ACD call statistically as answered and handled.

Table 16. Mark-As-Answered Step Parameters

Parameter	Function	Parameter Types Allowed
Condition	Defines conditions a switch applies before marking a call as answered: {{CONDTABLE}}	• Fixed value • User-defined constant • User-defined variable • System variable • Pre-defined function

Where {{CONDTABLE}} is:

Condition	Action
Unconditional	The switch marks the call as answered regardless of any future status for the call.
Conditional	The switch marks the call as answered if: • The caller hangs up while the call guide is still processing the call • The call guide performs a Disconnect Call step to end the call The switch records normal statistics for the call if it is: • Answered by an agent • Transferred • Forwarded

Play Tone Step

A Play Tone (PLTN) call guide step plays a continuous or fixed-length tone to a caller.

Table 17. Play Tone Step Parameters

Parameter	Function		Parameter Types Allowed
Tone to Play	Defines the tone.		• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function
	Parameter Value (Integer)	**Tone**	
	0	Silence (no tone)	
	1	Continuous low-pitch humming (recommended for inside dial tone)	
	2	Continuous high-pitch humming (recommended for outside dial tone)	
	3	Continuous medium-pitch humming (recommended for modem answer)	
	5	Continuous slowly pulsing buzzes (recommended for busy tone)	
	6	Continuous quickly pulsing buzzes (recommended for reorder tone)	
	7	Continuous ringing (recommended for ringback tone, simulating ringing at the destination)	
	8	Continuous pulses of a ring followed by a beep (recommended for call waiting ringback tone)	
	9	A single fixed-length tone (recommended as a Zip tone to prompt for digits and other input)	
	10	Two fixed-length tones (recommended as a Zip-Zip tone for confirmation)	

Tone to Play (Continued)	11	Continuous pulses of a short ring (recommended for an inside call waiting tone)	
	12	Continuous pulses of two closely occurring short rings (recommended for an outside call waiting tone)	
	13	Long fixed-length beep (recommended for an override warning tone)	
	32	Three fixed-length tone (recommended as a Zip-Zip-Zip tone)	
Tone Duration	The duration, from 1 to 254 seconds, of the continuous tone the switch plays. When the value is -1 or "no timing," the switch plays a continuous tone indefinitely, until the caller hangs up or someone at the destination answers. **Note** To support a variable Tone to Play parameter that represents a fixed-length tone, the Tone Duration value must be 0 or "null."		• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function

Repeat Step

A Repeat (REPT) call guide step indicates the end of a Do/Repeat block, which allows a call guide to repeat a set of steps before advancing to other steps. When processing a Do step for the first time, a switch sets a repeat counter for the Do/Repeat block to 0 (zero). Upon reaching the Repeat step, the switch increments the repeat counter by one (from 0 to 1, 1 to 2, and so on). If the repeat counter matches the value of the Repeat step's Repeat Count parameter, processing advances past the Do/Repeat block to the next step in the call guide. Otherwise, processing returns to the beginning of the Do/Repeat block (the Do step) and process all the steps from the Do to the Repeat again.

A Do/Repeat block can contain up to 16 steps. If a Do/Repeat block contains more than 16 steps, the switch performs error handling (see "Call Guide Error Handling").

Caution!

Using a Goto step to access a step within a Do/Repeat block may have undesirable results.

Table 18. Repeat Step Parameters

Parameter	Function	Parameter Types Allowed
Repeat Count	Defines the number of time that the switch processes the Do/Repeat block for each call. A fixed value of -1 or "continuously" causes the switch to repeat the block of steps without a count limit.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function

Set Step

A Set (SET) call guide step initializes or changes a variable. A Set step can define a variable with either a single operand or the result of a simple mathematical operation involving two operands. Examples include:

```
Set Variable1 = 13
Set Variable1 = Variable1 + 1
Set Variable1 = Constant1 - Variable2
Set Variable1 = Variable2 * 3
Set Variable1 = Variable3 / Constant2
Set Varaible1 = Variable4 MOD 12
```

Table 19. Set Step Parameters

Parameter	Function	Parameter Types Allowed
Target Variable	Identifies the variable to initialize or change. A switch applies the initialization or change within the call guide that defines the variable. See "User-defined Variable Call Guide Parameters" for more information. In Set step syntax, the target variable occurs before (to the left of) the equal sign. In the following example, Var7 is the target variable: **Set Var7 = 100** Note The target variable, first operand, and second operand must either all be integers or all be digit strings. A Set step can contain type conversion functions, as follows, to ensure that the operands and target variable match: • INT(*digit string variable*) • DIGITSTR(*integer variable*) Example: **Set Var1 = INT(Var2) + 1**	• User-defined variable • System variable (USRDATA1 *only*)

Parameter	Function	Parameter Types Allowed
First Operand	Defines the first of either one or two operands. When an operand is an un-initialized user-defined variable, the system sets integers to zero (0) and digit strings to "null." When operands in a division or modulo operation are fixed values, pre-defined constants, or user-defined constants, the system console notifies you if the operation includes zero (0) as a divisor. If a switch processes a Set step with an operation that includes zero (0) as a divisor, it performs error handling. See "Call Guide Error Handling." **Note** The target variable, first operand, and second operand must either all be integers or all be digit strings. A Set step can contain type conversion functions, as follows, to ensure that the operands and target variable match: • `INT(`*`digit string variable`*`)` • `DIGITSTR(`*`integer variable`*`)` For example: Set Var1 = INT(Var2) + 1	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function • Label
Operator (optional)	Specifies the operation as one of the following: • Addition (+) • Subtraction (-) • Multiplication (*) • Division (/) • Modulo (MOD) • Concatenation (+) When operands in an operation are digit strings, only the concatenation operator is valid, combining the two strings into one longer digit string ("123" + "456" produces "123456").	The value of this parameter is a fixed selection in the call guide.

Parameter	Function	Parameter Types Allowed
Second Operand (optional)	Defines the second of two operands (when a Set step includes an operation). When an operand is an un-initialized user-defined variable, the system sets integers to zero (0) and digit strings to "null." When operands in a division or modulo operation are fixed values, pre-defined constants, or user-defined constants, the system console notifies you if the operation includes zero (0) as a divisor. If a switch processes a Set step with an operation that includes zero (0) as a divisor, it performs error handling. See "Call Guide Error Handling." **Note** The target variable, first operand, and second operand must either all be integers or all be digit strings. A Set step can contain type conversion functions, as follows, to ensure that the operands and target variable match: • INT(*digit string variable*) • DIGITSTR(*integer variable*) For example: Set Var1 = Var2 + INT(Var3)	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function • Label

Speak Announcement Step

A Speak Announcement (SANN) call guide step acquires an announcement trunk from a specified group and connects a caller to an external interactive voice response (IVR) unit. Because the connection is one-way only, the IVR unit plays an announcement to a caller but the caller cannot respond. A Speak Announcement step, using a Prefix Digit Table (PDT), can automatically send pilot number, queue time, or calling party number to a connected IVR.

Table 20. Speak Announcement Step Parameters

Parameter	Function	Parameter Types Allowed
Announcement Trunk Group	Assigns the announcement trunk group, by number, to which the external IVR unit is associated.	• Fixed value • User-defined constant

Parameter	Function	Parameter Types Allowed
Prefix Digit Table (PDT)	Assigns the PDT, by number, that contains the information that the switch sends to the IVR. If the value of this parameter is 0, the Speak Announcement step does not provide a pilot number, queue time, or calling party number to the associated IVR.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function
Wait Time for Announcement Trunk	Defines the duration that the system waits for an announcement trunk to become available. Valid values include: <table><tr><td>**Value**</td><td>**Description**</td></tr><tr><td>1-255</td><td>The duration of the wait, in seconds. The default is ten seconds.</td></tr><tr><td>0</td><td>The system will not wait for an available trunk; it immediately proceeds to the call guide step when no announcement trunk is available.</td></tr><tr><td>-1</td><td>Indicates "no timing;" the system waits indefinitely for an announcement trunk to be available.</td></tr></table>	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function
Unavailable Announcement Trunk Step	Defines a call guide step to which the system will proceed if no announcement trunk becomes available within the wait time. This parameter can specify either a step number, a step label, or "Next." Next instructs the system to execute the call guide step that immediately follows the Speak Announcement step.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function • Label
Agent Interrupt	Enables or disables interruption of the IVR unit when an agent becomes available to answer the call.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function

Speak Annunciator Message Step

A Speak Annunciator Message (SANU) call guide step connects a caller to an annunciator from a specified group. Because the connection is one-way only, the annunciator plays a message to a caller but the caller cannot respond. You must use a system console's Annunciator Message (AMSG) command to build annunciator messages from a set of phrases stored in the system database. See "Create Annunciator Messages" for a procedure.

Table 21. Speak Annunciator Message Step

Parameter	Function	Parameter Types Allowed
Annunciator Group	Assigns the annunciator group, by number.	• Fixed value • User-defined constant
Annunciator Message	Identifies, by number, the message that the annunciator will play to a caller.	• Fixed value • User-defined constant • User-defined variable • System variable • Pre-defined function
Wait Time for Annunciator	Defines the duration that the system waits for an annunciator to become available. Valid values include: | Value	Description
---	---
1-255	The duration of the wait, in seconds. The default is ten seconds.
0	The system will not wait for an available trunk; it immediately proceeds to the call guide step when no announcement trunk is available.
-1	Indicates "no timing;" the system waits indefinitely for an announcement trunk to be available.		• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function
Unavailable Annunciator Step	Defines a call guide step to which the system will proceed if no annunciator becomes available within the wait time. This parameter can specify either a step number, a step label, or "Next." Next instructs the system to execute the call guide step that immediately follows the Speak Annunciator Message step.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function • Label

Parameter	Function	Parameter Types Allowed
Agent Interrupt	Enables or disables interruption of the annunciator when an agent becomes available to answer the call.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function

Create Annunciator Messages for Call Guide

Use this procedure to create annunciator messages for use by a Speak Annunciator Message step in a call guide.

Step	Action	Result

1.	At the main Administrative Console command prompt:
	
	Type **AMSG** (Annunciator Message).
		The console displays:
		
		`SELECT COMMAND => AMSG`
		
		`SELECT MODE: PRINT, DISPLAY, UPDATE, SEARCH =>`

2.	Type **U**.	The console displays: `SELECT MODE: C-Create or D-Delete... =>`
3.	Type **C**.	The console displays: `MESSAGE NUMBER (32-47)... =>`
4.	Type the number of a new annunciator message to create, from 32 to 47. **Note** The system reserves annunciator messages 1 to 31 for fixed messages. You can not create a new message with one of these numbers.	The console displays: `WORD TYPE: P/xx; D/xx; Word; Return=End or ?... =>`
5.	Type a component of the message that you are creating. See "Annunciator Message Components" for assistance.	The console displays: `WORD TYPE: P/xx; D/xx; Word; Return=End or ?... =>`
6.	Repeat step 5 for each additional component of the new annunciator message, in sequential order.	
7.	Press **<Enter>** when you have completed the new annunciator message.	The console displays the new annunciator message, followed by: `DOES UPDATE VERIFY?`

Step	Action	Result
8.	Type **Y**.	The system saves the new message.

Annunciator Message Components

Each annunciator message contains one or more components. The system plays each component in sequential order to generate a complete message. Each component can be one of the following:

- A word, representing a fixed audio phrase; see "Annunciator Phrases" for a complete list of phrases and the abbreviations the administrative console uses to identify them.

- A pause in milliseconds. Through the administrative console, define a pause in the form "P/xx," where xx is the length of the delay in milliseconds. For example, type "P/15" to insert a delay of 15 milliseconds in the message.

- A digit string. Through the administrative console, define a string of digits in the form "D/xx," where xx is the length of the digit string up to 15 digits.

The system combines the components sequentially to generate a complete annunciator message. For example, the components YRCL WLBE NSRD WHEN LNIS AVLB generate the message, "Your call will be answered when a line is available."

Note

The possible annunciator messages that the system can generate are limited. To increase the flexibility and options for messaging, consider implementing the Integrated Voice Services capability of PointSpan switches. See the PointSpan *IVC Card Features and Support* manual (2489-*nnn*) for more information.

Annunciator Phrases

The following list includes of the available phrases for annunciator messages and their corresponding abbreviation (in parentheses). At the administrative console, type the abbreviation to indicate the phrase.

- "Zero" (zero)
- "One" (one)
- "Two" (two)
- "Three" (thre)
- "Four" (four)
- "Five" (five)
- "Six" (six)
- "Seven" (sevn)
- "Eight" (eght)
- "Nine" (nine)
- "A" (a)

- "Account" (acct)
- "Agent" (agnt)
- "All lines busy" (allb)
- "Allowed" (alow)
- "Alarm" (alrm)
- "And" (and)
- "Application-pilot" (aplt)
- "Attendant" (atnd)
- "Authorization" (auth)
- "Available" (avlb)
- "B" (b)
- "Cabinet" (cab)
- "Call" (call)
- "Circuit" (ckt)
- "Callback" (clbk)
- "Cancelled" (cncl)
- "Conference" (cnfr)
- "Code" (code)
- "Dial" (dial)
- "DNIS" (dnis)
- "Directory" (drct)
- "Emergency" (emgy)
- "Enter" (entr)
- "Error" (err)
- "For assistance" (fras)
- "Forward" (frwd)
- "Group" (grp)
- "Held" (held)
- "Hold" (hold)
- "ID" (id)
- "Input" (inpt)
- "Is" (is)
- "Is ready" (isrd)

- "Later" (latr)
- "A line is" (lnis)
- "Message" (mesg)
- "Monitoring" (mntr)
- "Not" (not)
- "Number" (nmbr)
- "Answered" (nsrd)
- "Not in service" (ntsv)
- "Invalid" (nvld)
- "Offline" (offl)
- "Or" (or)
- "Park" (park)
- "Please" (plse)
- "Pound" (poun)
- "Press" (pres)
- "Private" (prvt)
- "Queue" (queu)
- "Selection" (selt)
- "Shelf" (shel)
- "Slot" (slot)
- "Star" (star)
- "Supervisor" (supv)
- "To" (to)
- "Voice mail" (vmal)
- "When" (when)
- "Will be" (wlbe)
- "Transferred" (xfer)
- "Extension" (xtsn)
- "Your" (your)
- "Your call" (yrcl)

Speak Broadcast Message Step

A Speak Broadcast Message (SBRO) call guide step connects a caller to a broadcast trunk, which plays a message to the caller for a duration specified by the broadcast trunk

group. Because the connection is one-way only, the broadcast trunk plays a message to a caller but the caller cannot respond.

Table 22. Speak Broadcast Message Step

Parameter	Function	Parameter Types Allowed
Broadcast Trunk Group	Assigns the broadcast trunk group, by number.	• Fixed value • User-defined constant
Unavailable Broadcast Trunk Step	Defines a call guide step to which the system will proceed if no broadcast trunk is immediately available. Because an unavailable broadcast trunk either does not exist or is in a Maintenance Out of Service (MOS) state, the system does not wait for it to become available. This parameter can specify either a step number, a step label, or "Next." Next instructs the system to execute the call guide step that immediately follows the Speak Broadcast Message step.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function
Agent Interrupt	Enables or disables interruption of the broadcast trunk when an agent becomes available to answer the call.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function

Speak IVS Data Step

A Speak IVS Data (SDAT) call guide step plays a single variable or value to a caller, translating data values into audio phrases. For example, it can translate 6000 into "six, zero, zero, zero." Sequences of Speak IVS Phrase and Speak IVS Data steps can combine phrases to create announcements with more meaning than a single phrase.

For complete details on IVS phrases and their functionality, see "IVS Phrase Management," "System Phrases," "Phrase Combinations," and related sections in the *IVC Card Features and Support* manual (2489-*nnn*).

Table 23. Speak IVS Data Step Parameters

Parameter	Function	Parameter Types Allowed
IVS Group	Assigns the IVS group, by number, to which the IVS phrase group that defines system phrases is associated.	• Fixed value • User-defined constant
IVS Phrase Group	Defines the IVS phrase group to which system phrases are associated. As detailed in "System Phrases," the IVS Group must contain all of the phrases necessary to support the system's translation of data values into appropriate audio.	• Fixed value • User-defined constant • User-defined variable • System variable • Pre-defined function
Wait Time for IVS Device	Defines the duration that the system waits for an IVC device to become available. Valid values include: | Value	Description
---	---
1-255	The duration of the wait, in seconds. The default is ten seconds.
0	The system will not wait for an available device; it immediately proceeds to the call guide step when no IVC group is available.
-1	Indicates "no timing;" the system waits indefinitely for an IVC device to be available.		• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function
Unavailable IVS Device Step	Defines a call guide step to which the system will proceed if no IVC device becomes available within the wait time. This parameter can specify either a step number, a step label, or "Next." Next instructs the system to execute the call guide step that immediately follows the End Get Digits step.	• Fixed value • Pre-defined constant • Pre-defined constant • User-defined variable • System variable • Pre-defined function • Label
Data to Speak	Defines the data phrase to be translated into audio.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function

Speak IVS Phrase Step

A Speak IVS Phrase (SPHR) call guide step plays a phrase from an IVC device to a connected caller. An IVS phrase can provide speech, tones, music, or other forms of audio. Many third-party recording applications allow you to create phrases for your call center. To make phrases available for inclusion in a call guide, switch control software stores them on one or more IVS cards or modules. Sequences of Speak IVS Phrase and Speak IVS Data steps can combine phrases to create announcements with more meaning than a single phrase. For complete details on IVS phrases and their functionality, see "IVS Phrase Management," "Phrase Combinations," and related sections in the *IVC Card Features and Support* manual (2489-*nnn*).

Table 24. Speak IVS Phrase Step

Parameter	Function	Parameter Types Allowed
IVS Group	Assigns the IVS group, by number, to which the phrase to be played is associated.	• Fixed value • User-defined constant
IVS Phrase Group	Assigns the IVS phrase group to which the phrase to be played is associated.	• Fixed value • User-defined constant • User-defined variable • System variable • Pre-defined function
IVS Phrase ID	Defines, by number, the specific phrase to be played.	• Fixed value • User-defined constant • User-defined variable • System variable • Pre-defined function
Wait Time for IVS Device	Defines the duration that the system waits for an IVC device to become available. Valid values include: | Value	Description
-------	-------------
1-255	The duration of the wait, in seconds. The default is ten seconds.
0	The system will not wait for an available device; it immediately proceeds to the call guide step when no IVC group is available.
-1	Indicates "no timing;" the system waits indefinitely for an IVC device to be available.		• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function

Parameter	Function	Parameter Types Allowed
Unavailable IVS Device Step	Defines a call guide step to which the system will proceed if no IVC device becomes available within the wait time. This parameter can specify either a step number, a step label, or "Next." Next instructs the system to execute the call guide step that immediately follows the Speak IVS Phrase step.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function • Label
Agent Interrupt	Enables or disables interruption of an announcement or phrase in progress when an agent becomes available to answer the call.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function

Special Handling of IVS Phrases, Data, and Pauses

During call guide processing, a PointSpan switch groups the following steps when they are sequential and use the same IVS group:

- Announcement Pause step

- Goto step

- If / Else / End If steps

- Set step

- Speak IVS Data step

- Speak IVS Phrase step

A switch stops grouping steps whenever it encounters any other step or one of these steps with a different phrase group.

To prevent possible delays between phrases, a switch collects *all* phrases, data, and pauses for sequential steps that share a common phrase group before instructing an IVC device to play them. Without grouping, an IVC device could complete the first of two related phrases before it receives the second phrase. The switch proceeds to another call guide step after an IVC device finishes playing all the collected phrases, data, and pauses.

If an IVC device fails to play any of the collected phrases, data, or pauses, the switch skips to the alternate call guide step that Speak IVS Phrase and Speak IVS Data steps define for times when an IVC device is unavailable.

⚠️ Caution!

Be careful when changing variables with a Set step. A Set step within a group of sequential steps that share a common phrase group can change variables that previous steps in the group use. For example, a Set step can change a system variable that a preceding Speak IVS Phrase step uses to define the phrase identifier. Because the system

does not play phrases until it processes all the steps in the group, the Set step could cause the Speak IVS Phrase step to refer to an incorrect or invalid phrase.

Wait Step

A Wait (WAIT) call guide step inserts a delay before call guide processing continues to the next step. Examples include:

- A Wait between two Speak Announcement steps provides a reasonable delay between messages to a caller.

- A Wait after processing routes a call to an agent group queue allows time for an agent to become available to answer the call.

- A Wait before a last step, such as a Forward Call or Disconnect Call step, allows a final chance for more desirable call processing.

During a wait time, the system can play silence, a ringback tone, or music. A delay ends when one of the following occurs:

- The wait time defined in the Wait step expires (see the parameters below).

- An agent becomes available to answer the call.

- An Open Application Interface (OAI) application or Computer Supported Telecomm Application (CSTA) transfers the call out of the called pilot.

Table 25. Wait Step Parameters

Parameter	Function	Parameter Types Allowed
Wait Type	Defines the method for determining the wait time. | Restriction	Description
---	---
Dynamic	The system uses the Dynamic Wait Type parameter to determine the wait time.
Time	The system uses the Wait Time parameter to determine the wait time.		The value of this parameter is a fixed selection in the call guide.

Parameter	Function	Parameter Types Allowed
Dynamic Wait Type	Defines dynamic waiting. The wait time ends only when the selected statistic exceeds the duration of the Adjustment for Average Time parameter. <table><tr><td>**Statistic**</td><td>**Description**</td></tr><tr><td>Average Call Abandon Time</td><td>The average time after which a caller hangs up before an agent answers. This average excludes all calls that a caller ends within the duration of the short abandon threshold.</td></tr><tr><td>Average Call Queue Duration</td><td>The average length of time that a call remains in queue before the switch routes the call to an available agent.</td></tr><tr><td>Average Call Answer Time</td><td>The average length of time that a call remains in queue before being answered by an ACD agent.</td></tr><tr><td>Average Call Overflow Time</td><td>The average length of time that a call remains in queue for this pilot before the switch routes it to an overflow pilot.</td></tr></table>	The value of this parameter is a fixed selection in the call guide.
Adjustment for Average Time	A number of seconds, from + or - 0 to 127, that sets the threshold for the statistic that Dynamic Waiting uses to determine when to end the wait time.	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function

Parameter	Function	Parameter Types Allowed
Wait Time	Defines a specific wait time. Valid values include: | Value	Description | |---|---| | 1-255 | The duration of the wait, in seconds. | | 0 | The system will not wait at all; it immediately proceeds to the next call guide step. | | -1 | Indicates "no timing;" the switch waits indefinitely. |	• Fixed value • Pre-defined constant • User-defined constant • User-defined variable • System variable • Pre-defined function
Wait Tone	Selects whether the switch plays silence, a ringback tone, or music to the caller during the wait period: | Value	Description | |---|---| | 0 | Silence | | 7 | Ringback | | 255 | Music |	• Fixed value • User-defined constant • User-defined variable • System variable • Pre-defined function

Chapter 3
Call Guide Parameters

Each call guide step typically contains parameters that affect the operation of the step. The system consoles for PointSpan switches prevent the inclusion of parameters of a type that is not appropriate for a step. For example, only a call guide step that references another call guide step can include a label parameter.

Table 26. Types of Call Guide Parameters

Parameter Type	Description
Fixed value	A fixed integer or digit string value specified directly in the call guide. The system defines the maximum length for digit strings, typically not to exceed 30 digits. Digit strings can include the star (*) and pound (#) symbols. An integer can range from -2147483648 to 2147483647. See "Fixed-value Call Guide Parameters." **Note** You can change the maximum length of digit strings to either 14, 22, 30, 38, 46, or 94 digits. Changing the length of digit strings, however, requires the inclusion of digit string variables in all call guides. Please contact the Aastra Inc. Customer Service Center (CSC) at 1-800-729-1872.
Pre-defined constant	A value, such as "Null," that the system names and defines. A call guide step specifies the value of a pre-defined constant directly in a call guide. When "Null" defines an integer, the value is zero (0). When "Null" defines a digit string, it represents a string with no digits (a zero-length string). See "Pre-defined Constant Call Guide Parameters."
User-defined constant	A value that you can name and define, such as "Con2." It represents any fixed value. By changing the value of a user-defined constant in its declaration, you change the value of every occurrence of the parameter throughout your system's call guides. See "User-defined Constant Call Guide Parameters."

Parameter Type	Description
User-defined variable	A variable that you can name and define, such as "Var2." The system defines the value of a variable during call guide processing. A processing event, such as a Set step or Get Digits step, can initialize or change the value of a variable.
	See "User-defined Variable Call Guide Parameters."
System variable	A variable, such as "CALLUGP," that a PointSpan switch names, defines, and provides for use in call guides.
	See "System Variable Call Guide Parameters."
Pre-defined function	A function provided by PointSpan switches for use in call guides to return specific results during call guide processing.
	See "Pre-defined Function Call Guide Parameters."
Label	A fixed parameter referencing a specific step in the call guide.
	See "Label Call Guide Parameters."

Fixed-value Call Guide Parameters

A call guide specifies each fixed-value parameter as an integer value or a digit string. An integer can range from -2147483648 to 2147483647. The system defines the maximum length for digit strings, typically not to exceed 30 digits. Digit strings can include the star (*) and pound (#) symbols.

Pre-defined Constant Call Guide Parameters

A call guide can include pre-defined constant parameters. A pre-defined constant parameter has a value of "Null," which the system has named and defined. When "Null" defines an integer, the value is zero (0). When "Null" defines a digit string, it represents a string with no digits (a zer0-length string).

User-defined Constant Call Guide Parameters

A call-guide can include user-defined constant parameters by assigning a fixed value (either an integer or a digit string) to a constant name that a user selects. The system treats user-defined constants as fixed-value parameters. An integer can range from -2147483648 to 2147483647. The system defines the maximum length for digit strings, typically not to exceed 30 digits. Digit strings can include the star (*) and pound (#) symbols.

User-defined Variable Call Guide Parameters

A call guide can include user-defined variables to represent any of the following values that may differ from call to call:

- Caller choices

- Values that the system passes between call guides

- Digit strings that the system passes as *user data* to Open Application Interface (OAI) applications, integrated voice response (IVR) units, or other external systems; See "User Data"

- Calling party numbers that the system passes to outgoing trunks

A variable represents either an integer value or a digit string. The system *initializes* (defines) or changes the value of a variable during call guide processing. A processing event, such as a Set step or Get Digits step, can initialize or change the value. Until the system initializes a user-defined variable, it has a value of either zero (if an integer) or "Null" (if a digit string).

An integer can range from -2147483648 to 2147483647. The system defines the maximum length for digit strings, typically not to exceed 30 digits. Digit strings can include the star (*) and pound (#) symbols.

Note

You can change the maximum length of digit strings to either 14, 22, 30, 38, 46, or 94 digits. Changing the length of digit strings, however, requires the inclusion of digit string variables in all call guides. For assistance, please contact the Aastra Inc. Customer Service Center (CSC) at 1-800-729-1872.

Maximum Number of Variables Per Call

A single call can involve a maximum of 100 variables (across *all* of the call guides that process the call). The system maintains all of the variables introduced by the initial call guide throughout a call. It also maintains variables introduced by other call guides that the system branches to or calls. However, the system stops maintaining the variables of a call guide after it returns processing to the initial call guide.

Variable Names

You assign each variable a unique name, such as "Var1." Each variable name can be up to eight characters long, beginning with an alphabetic letter (A to Z). The system reserves some names for system variables, pre-defined constants, and pre-defined functions. You can not use these reserved names as user-defined variable names. The system reserves "Null" as a pre-defined constant. See the following for other reserved names:

- "System Variable Call Guide Parameters"

- "Pre-defined Function Call Guide Parameters"

Using Variables Across Different Call Guides

Unless a variable is explicitly passes from one call guide to another, it remains a local variable, applying only within the call guide that declares it. Any step that transfers call guide processing to another call guide (Call Guide Call, Call Guide Return) may pass (or return) up to 12 variables.

System Variable Call Guide Parameters

A call guide can include system variables that a PointSpan switch names and defines. When the system evaluates a system variable during call guide processing, it uses the value of the variable when processing the associated step. When a system variable includes one or more parameters that identify a party involved in a call, it acts like a function call.

The following properties define each system variable:

- Name

- Parameters (required and optional); see "Parameters for System Variables"

- Type (whether it represents an integer or a digit string)

- Access (whether it is available for update or read-only)

- Description (what information the variable defines)

Table 27 describes the variables provided for use in call guides by a PointSpan switch.

Table 27. System Variables

Name	Parameters	Type	Access	Description
CALLUGP		Integer	Read-only	The user group number for the current call
LPTYPE	Party	Integer	Read-only	The local switch party type for either the call's originator or a transferred party
TRUNKTYP	Party	Integer	Read-only	The local switch trunk type for either the call's originator or a transferred party
RPTYPE	Party	Integer	Read-only	The remote switch party type for either the calls originator or a transferred party
CALLTRSF		Integer	Read-only	An indicator that a call's originator is transferring a call (transfer in progress)

Name	Parameters	Type	Access	Description
RPITYPE	Party	Integer	Read-only	The identification type for the call's originator or a transferred party
RPINODE	Party	Integer	Read-only	The remote switch node number for the call's originator or a transferred party
RPITGRP	Party	Integer	Read-only	The remote trunk group number for the call's originator or a transferred party
RPIDGTS	Party	Digit String	Read-only	The directory number or network numbering plan (NNP) number for the call's originator or a transferred party
CPNSCRN	Party	Integer	Read-only	The calling party number (CPN) screening indicator for the call's originator or a transferred party
CPNPRES	Party	Integer	Read-only	The calling party number (CPN) presentation indicator for the call's originator or a transferred party
CPNPLAN	Party	Integer	Read-only	The calling party number (CPN) numbering plan for the call's originator or a transferred party
CPNTYPE	Party	Integer	Read-only	The calling party number (CPN) number type for the call's originator or a transferred party
CPNDGTS	Party	Digit String	Read-only	The calling party number (CPN) digits for the call's originator or a transferred party
CPNIDGTS	Party	Digit String	Read-only	The calling party number (CPN) information digits for the call's originator or a transferred party
USRDATA1	Party	Digit String	Update	User Data #1 for the call's originator or a transferred party

Name	Parameters	Type	Access	Description
DNISNUM		Digit String	Read-only	The Dialed Number Identification Service (DNIS) number for the call
DNISDEST		Digit String	Read-only	The DNIS destination number for the call
PILOT		Digit String	Read-only	The directory number for the called pilot
PILOTSGP		Integer	Read-only	The user group associated with the called pilot
PILOTQUE	Pilot Directory Number (optional); Pilot User Group (optional)	Integer	Read-only	The current queue depth for the specified pilot
AGRPQUE	Agent Group Pilot Number (optional); Agent Group Pilot User Group (optional)	Integer	Read-only	The current queue depth for the specified agent group pilot
AGRPNSA	Agent Group Pilot Number (optional); Agent Group Pilot User Group (optional)	Integer	Read-only	The current number of agents signed on for the specified agent group pilot
AGRPNAA	Agent Group Pilot Number (optional); Agent Group Pilot User Group (optional)	Integer	Read-only	The current number of agents available to answer calls for the specified agent group pilot

Name	Parameters	Type	Access	Description
AGRPNTA	Agent Group Pilot Number (optional); Agent Group Pilot User Group (optional)	Integer	Read-only	The total number of agents assigned to the specified agent group pilot
PQUETIME		Integer	Read-only	The length of time that the call has been in queue
CURRH12		Integer	Read-only	The current hour (12-hour time)
CURRH24		Integer	Read-only	The current hour (24-hour time)
CURRMIN		Integer	Read-only	The current minute
CURRSEC		Integer	Read-only	The current second
CURRAPM		Integer	Read-only	An indicator or AM or PM for the current time
DATEMON		Integer	Read-only	The current month
DATEDAY		Integer	Read-only	The current day
DATEYEAR		Integer	Read-only	The current year
DATEDOW		Integer	Read-only	The current day of the week
ERRCGN		Integer	Read-only	The number of the call guide in which an error occurred
ERRSTEP		Integer	Read-only	The step number at which an error in a call guide occurred
ERRCODE		Integer	Read-only	The code for a call guide processing error
GDTERM		Digit String	Read-only	The terminator digit for the last Get Digits step
GDTOUT		Integer	Read-only	An indicator for timeout for the last Get Digits step

Name	Parameters	Type	Access	Description
PILOTQPR	Agent Group Pilot Number (optional); Agent Group Pilot User Group (optional)	Integer	Read-only	Returns the queue passage rate (number of calls per hour) for a pilot. The optional Directory Number parameter defaults to the called pilot directory number unless otherwise specified. The optional User Group parameter defaults to the pilot's User Group number unless otherwise specified.
CALCQUE		Digit String	Read-only	Returns the call's current queue depth (from 0 to 65535) for the pilot to which a call is queued.
CALCETA		Digit String	Read-only	Returns the current estimated time until answer (from 0 to 65535 seconds) for a call in queue.
CALIQUE		Digit String	Read-only	Returns the pilot queue depth (from 0 to 65535) when a call first queues at a pilot.
CALIETA		Digit String	Read-only	Returns the estimated time until answer (from 0 to 65535 seconds) when a call first queues at a pilot.

Some parameters provide a default value. For example, the pilot queue depth (PILOTQUE) variable includes parameters that identify a pilot directory number and user group. If not otherwise defined, these identify the called pilot and the call pilot's user group.

Table 28 describes parameters for system variables.

Table 28. Parameters for System Variables

Parameter for System Variable	Description	
Party	Specifies a party involved in the call.	
	Value	**Description**
	1	Call's originator

Parameter for System Variable	Description	
	2	Transferred party (party receiving a call transferred by the originator)
Pilot Directory Number	A pilot directory number, from one to five digits. The value defaults to the called pilot's directory number.	
Pilot User Group	A pilot user group, from 1 to 1000. The value defaults to the user group associated with the called pilot.	
Agent Group Pilot Directory Number	An agent group pilot directory number, from one to five digits. The value defaults to the called pilot's directory number.	
Agent Group Pilot User Group	An agent group pilot's associated user group, from 1 to 1000. The value defaults to the user group associated with the called pilot.	

Pre-defined Function Call Guide Parameters

A call guide can include pre-defined functions, constructs provided by PointSpan switches for use in call guides. Pre-defined functions manipulate variables and return specific values during call guide processing. When the system evaluates a pre-defined function during call guide processing, it uses the value that the function yields when processing the associated step.

The following properties define each pre-defined function:

- Name

- Parameters (required and optional)

- Type (whether it represents an integer or a digit string)

- Description (what the function does)

Table 29 describes all of the pre-defined functions provided for use in call guides by a PointSpan switch.

Table 29. Pre-defined Functions

Name	Parameters	Type	Description
ABS	Integer Parameter	Integer	Returns the positive absolute value of the specified integer parameter.
INT	Digit String Parameter	Integer	Returns the integer value for the digits in the specified digit string parameter.

Name	Parameters	Type	Description
LEN	Digit String Parameter	Integer	Return the length (number of digits) in the specified digit string parameter.
SUBSTR	Digit String Parameter; Integer Parameter 1; Integer Parameter 2 (optional)	Digit String	Returns all or part of the digits in the specified digit string parameter.
DIGITSTR	Integer Parameter	Digit String	Returns a digit string that represents the value in the specified integer parameter.
HOUR	Integer Parameter 1	Integer	Returns the hour based on the total number of seconds in integer parameter 1.
MINUTE	Integer Parameter 1	Integer	Returns the minute based on the total number of seconds in integer parameter 1.
SECOND	Integer Parameter 1	Integer	Returns the second based on the total number of seconds in integer parameter 1.
VALSTEP	Integer Parameter	Integer	Validates that the specified integer parameter matches a step number in the current call guide.
VALCGN	Integer Parameter	Integer	Validates that the specified integer parameter matches the number of a call guide in the system database.
DIRNTYPE	Digit String Parameter; Integer Parameter (optional)	Integer	Returns the type of the directory number provided by the digit sting parameter. Also, returns the type of directory number based on the user group number in the optional integer parameter.

Label Call Guide Parameters

A call guide can include labels. A label references a specific step in a call guide. Step numbers change when you add, delete, or move call guide steps. Labels allow you to change a step's number without having to update references to it from other steps. For example, a Goto step can indicate "Label1" as it target step. The Goto step will still target the correct step even if the target step's number changes.

Label Names

You assign each label a unique name, such as "Label1." Each label name can be up to eight characters long, beginning with an alphabetic letter (A to Z).The system reserves some names for system variables, pre-defined constants, and pre-defined functions. You can not use these reserved names as label names. The system reserves the "ERROR" label to designate a special section of steps in a call guide to be executed when an error occurs during call guide processing. See "Call Guide Error Handling." The system also reserves "Null" as a pre-defined constant name. See the following for other reserved names:

- "System Variable Call Guide Parameters"

- "Pre-defined Function Call Guide Parameters"

User Data

The term *user data* refers to information that a switch exchanges to or from Open Application Interface (OAI) applications, integrated voice response (IVR) units, or other external systems. Each user defines the format and meaning of user data for their system. PointSpan switches do not apply user data in any processing; they merely pass such data to other systems. User data often contains call characteristics obtained by an external IVR unit. A PointSpan switch collects user data from an IVR unit as dual-tone multi-frequency (DTMF) digits. A switch uses an Application Resource Call (ARC) transfer message to collect user data from an OAI application.

Regardless of the source, a switch replaces the calling party number for the call with the user data. It stores the user data in a field up to 15 digits long and in a USRDATA1 system variable for use in call guides. Because the user data replaces the calling party number, it is available for any of the following:

- Display on customer phones

- Transfer to OAI applications

- Outpulsing to an IVR unit as DTMF digits

- Recording in a call detail record (CDR)

- Outpulsing to outgoing trunks

A call guide can pass the USRDATA1 variable to other call guides. A call guide can also change the value of the USRDATA1 variable.

Note

Changing the USERDATA1 variable also changes the calling party number for a call.
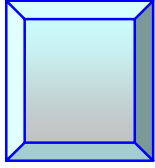
Chapter 4
Digit Collection

The collection of input from callers, usually in the form of dual-tone multi-frequency (DTMF) digits, is a primary capability of Integrated Voice Services (IVS). Digit collection requires a digit collection template, a construct that defines the characteristics of the caller input to be collected. Each Get Digits step in a call guide uses a digit collection template. Different Get Digits steps can share the same digit collection template.

Create a Digit Collection Template

Use this procedure to create a digit collection template.

Step	Action	Result

1.	At the main Administrative Console command prompt:
	
	Type **ACDC**.
		The console displays:
		
		`SELECT COMMAND => ACDC`
		
		`SELECT MODE: PRINT, DISPLAY, UPDATE, TITLES =>`

2.	Type **U**.	The console displays: `UPDATE MODE: C-Create; M-Modify; D-Delete ... =>`
3.	Type **C**.	The console displays: `SELECT SUBCOMMAND or ? ... =>`
4.	Type **T** (Digit Collection Template).	The console displays: `TEMPLATE NUMBER, A, U, or ? ... =>`
5.	Type the number for this digit collection template.	The console displays: `ENTER TITLE:... =>`
6.	Type an appropriate name for this digit collection template.	The console displays: `USER GROUP NUMBER (1-600)... =>`
7.	Type an appropriate user group number for this digit collection template.	The console displays: `NUMBER TYPE: I=Integer, D=Digit String, ?... =>`

Step	Action	Result
8.	Respond appropriately at this and subsequent prompts. See "Digit Collection Template Parameters" for descriptions of the parameters and their valid values.	After you respond to the prompt for an Interdigit Time, the console displays all of the digit collection template parameters, followed by: `DOES UPDATE VERIFY =>`
9.	Type **Y**. ⚠️ **C**aution! If you type **N**, the system will not save the digit collection template. Even if the template is not complete or 100% accurate, saving it makes it available for future edits (see "Modify a Digit Collection Template"). If you do not save the template, you must create it again from the beginning.	The system saves the digit collection template.

Modify a Digit Collection Template

Use this procedure to modify the parameters of an existing digit collection template.

Step	Action	Result

1.	At the main Administrative Console command prompt:
	
	Type **ACDC**.
		The console displays:
		
		`SELECT COMMAND => ACDC`
		
		`SELECT MODE: PRINT, DISPLAY, UPDATE, TITLES =>`

2.	Type **U**.	The console displays: `UPDATE MODE: C-Create; M-Modify; D-Delete ... =>`
3.	Type **M**.	The console displays: `SELECT SUBCOMMAND or ? ... =>`
4.	Type **T** (Digit Collection Template).	The console displays: `TEMPLATE NUMBER, A, U, or ? ... =>`

Step	Action	Result
5.	Type the number for this digit collection template. **Note** Type A to see all of the assigned digit collection template numbers. Type U to see all of the numbers still available for digit templates.	The console displays: `Specify TEMPLATE Field to Modify or - or ?... =>`
6.	Type an appropriate code to make a change to the template. | Code	Parameter to Change
------	---------------------
-	All template parameters
FDT	First Digit Wait Time
IDT	Interdigit Wait Time
MND	Minimum Number of Digits
MXD	Maximum Number of Digits
RTD	Return Terminator Digit
TRM	Terminator Digit(s)
TTL	Template Title
UG	User Group		According to your selection, the console displays prompt for you to change parameters.
7.	Type appropriate responses to all prompts. See "Digit Collection Template Parameters" for descriptions of the parameters and their valid values.	After you respond to the prompts, the console displays all of the digit collection template parameters, followed by: `DOES UPDATE VERIFY =>`
8.	Type **Y**.	The system saves the changes.

Several PointSpan database parameters define the characteristics of the digits that a
Get Digits step collects from a caller. Table 30 presents the digit collection template
parameters in alphabetical order.

Table 30. Digit Collection Template Parameters

Digit Collection Parameter	Description
Digit Validation	Specifies one of the following methods to validate the caller input.

Within the Digit Validation row, a nested table:

Method	Description
Digit	Validates each digit individually, one-by-one. A Valid Digits for Digit *N* parameter defines the valid values for each digit based on its place (*N*) in the digit string.
Range	Validates an integer value against a defined range. The Minimum Numeric Value and Maximum Numeric Value parameters set the valid range for the integer.
None	Does not validate caller digits.

Note

The Range method is only available for integers.

Digit Collection Parameter	Description
First Digit Wait Time	Defines the maximum time that the system will wait for the first input digit before advancing to the next step in a call guide. Valid values include: • 0 to 60 seconds • N, which specifies the wait time as the value of the Normal Inter-digit Time (NIT) user group parameter. • F, which specifies the wait time as the value of the Fast Inter-digit Time (NIT) user group parameter.
Interdigit Wait Time	Defines the maximum time that the system will wait for each input digit after the first before advancing to the next step in a call guide. Valid values include: • 0 to 60 seconds • N, which specifies the wait time as the value of the Normal Inter-digit Time (NIT) user group parameter. • F, which specifies the wait time as the value of the Fast Inter-digit Time (NIT) user group parameter.
Maximum Number of Digits	Defines the maximum number of digits that the

Digit Collection Parameter	Description
	system will accept for the digit string or integer. Valid ranges are 0-30 for a digit string or 0-10 for an integer.
Maximum Numeric Value	Defines the greatest valid value for an integer, from 0 to 2,147,483,647.
Minimum Number of Digits	Defines the minimum number of digits that the system will accept for the digit string or integer. Valid ranges are 0-30 for a digit string or 0-10 for an integer.
Minimum Numeric Value	Defines the least valid value for an integer, from 0 to 2,147,483,647.
Number Type	Specifies whether to treat caller input as a digit string or an integer.
Return Terminator Digit	Specifies whether to include the terminator digit in the digit string or integer value.
Terminator Digit or Digits	Defines the single digit or combination of digits that will end digit collection. Valid terminator digits include 0-9, the star (*) key, and the pound (#) key. Having no terminator digit is also valid.
Valid Digits for Digit *N*	Defines the values (from 0 to 9) that are valid for the digit, based on its order (*N*) in the digit string. The system requires this parameter for each place in the digit string up to the maximum number of digits. Valid value for digit strings also include the star (*) key and the pound (#) key.
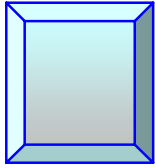
Chapter 5
Call Route Scheduling

With Call Route Scheduling, a PointSpan switch can activate different call guides based on time of day (TOD), day of week (DOW), and day of year (DOY) tables. The TOD and DOW tables address the timing needs of standard daily call center operations, including breaks, lunch hours, peak times, and weekends. The DOY table accommodates holidays and exceptions (such as annual events) that have different requirements and call activity.

An ACD steering pilot can contain up to four main call guides and one night call guide. Each steering pilot contains its own Call Route Scheduling parameters that determine which of the pilot's call guides is active at any time.

A pilot includes a night call guide specifically to support periods outside normal hours of operation. For example, the standard hours of operation for X Corp's call center are Monday through Friday, 8:00 am to 5:00 pm. X Corp activates their night call guide from 5:00 pm until 8:00 am every Monday through Friday and all day every Saturday and Sunday.

The four main call guides enable a pilot to support anticipated differences in work loads. For example, call volumes at X Corp's call center regularly increase after noon every Friday. X Corp's steering pilot includes a standard call guide for typical operations and a second call guide with additional agent groups for Friday afternoons. X Corp also plans a special promotional activity every Monday. Their steering pilot includes a third call guide with special routing to handle the unique requirements of the Monday promotions.

Note

Every steering pilot includes one main call guide and one night call guide to define how the pilot routes calls. A steering pilot includes more than one main call guide, however, *only* to support Call Route Scheduling. The system does *not* limit Branch to Call Guide or Call Guide Call steps to targeting call guides in the same pilot; any call guide can branch to or call *any* of the other call guides in the system database.

Note

A pilot numbers its main call guides 1 through 4. These numbers, however, do not match the call guide numbers that the system database assigns to call guides (through the ACDC command). A pilot can, for example, use the system's call guide 24 as any one of its four main call guides. Aastra Inc. recommends that your ACD design plan record the system's call guide numbers for each pilot. For details, see "ACD Design Principles" in the PointSpan *ACD Administration Procedures* manual (2542-*nnn*).

Time of Day Scheduling

A PointSpan switch database can include up to 12 TOD schedules, each with up to six defined daily periods. For example, the following TOD schedule activates call guide 1 from 8:00 am until 5:00 pm and activates the night call guide from 5:00 pm until 8:00 am.

```
TOD ENTRY 1

PERIOD      TIME        TYPE
----------------------------------------
  1         00:00       NIGHT SERVICE
  2         08:00       CG 1
  3         17:00       NIGHT SERVICE
```

Day of Week Scheduling

A PointSpan switch database can include a DOW schedule that assigns a different call guide or TOD schedule to each day of the week. For example, the following DOW schedule assigns TOD schedule 1 to every day except Thursday and Sunday, assigns Call Guide 2 for Thursdays, and the Night call guide for Sundays.

```
DAY OF WEEK      TYPE        TOD ENTRY       CG NUMBER
-------------------------------------------------------------
   MON           TOD             1               -
   TUE           TOD             1               -
   WED           TOD             1               -
   THU           CG              -               2
   FRI           TOD             1               -
   SAT           TOD             1               -
   SUN           NIGHT           -               -
```

Day of Year Scheduling

A PointSpan switch database can include a DOY schedule that changes which call guide the system activates based on holidays and other exceptional days based on specific date. For example, the following DOY schedule activates a special holiday call guide (call guide 4) on November 26, December 25, and January 1. It activates TOD schedule 3 on November 12 (an exceptional schedule day) and Call Guide 3 on December 26 (another exceptional day). The system activates call guides based on the DOW schedule for every other day during the year.

```
DAY OF YEAR      TYPE        TOD ENTRY       CG NUMBER
-------------------------------------------------------------
HOLIDAY          CG              -               4
NON-HOL          DOW             -               -
11/12            TOD             3               -
12/26            CG              3               -
```

```
DOY ROUTING TRANSLATION

                            1 1 1 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 3 3
        1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
-----------------------------------------------------------------
JAN H . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
FEB . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
MAR . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
APR . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
MAY . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
JUN . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
JUL . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
AUG . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
SEP . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
OCT . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
NOV . . . . . . . . . . . E . . . . . . . . . . . . . H . . . . . .
DEC . . . . . . . . . . . . . . . . . . . . . . . . . H E . . . . .
```

Enable or Modify Call Route Scheduling

The following table outlines the process to enable or modify Call Route Scheduling. Each ACD steering pilot has its own Call Route Scheduling parameters.

Stage	Description
1.	Deactivate the Call Route Scheduling capability while you create or modify parameters. Force the system to use an existing call guide while Call Route Scheduling is inactive. See "Activate or Deactivate Call Route Scheduling" for a procedure.
2.	Define Call Route Scheduling parameters, including Time of Day (TOD), Day of Week (DOW), and Day of Year (DOY) tables. See "Build Call Route Scheduling Tables" for a procedure. See "Call Route Scheduling Parameters" for descriptions of associated ACD pilot parameters.
3.	After saving the new or modified parameters to the switch database, activate Call Route Scheduling. See "Activate or Deactivate Call Route Scheduling" for a procedure.

Note

To define or change *all* of the parameters for a pilot, see "Create an ACD Pilot" or "Modify an ACD Pilot" in the *ACD Administration Procedures* manual (2542-*nnn*). The "ACD Pilot Parameters" section in that publication describes all of the pilot parameters.

Activate or Deactivate Call Route Scheduling

Use this procedure to activate or deactivate the Call Route Scheduling capability. Deactivate Call Route Scheduling while you create or modify parameters. Force the system to use an existing call guide while Call Route Scheduling is inactive. After saving the new or modified parameters, reactivate Call Route Scheduling.

Step	Action	Result

1.	At the main Administrative Console prompt, type **ACD**.	The console displays:
		
		`SELECT COMMAND => ACD`
		
		`SELECT MODE: PRINT, DISPLAY, UPDATE, TITLES, CHANGE, ADMIN =>`

2.	Type **U**.	The console displays: `SELECT MODE: C-Create; M-Modify; D-Delete... =>`
3.	Type **M**.	The console displays: `PILOT DIRECTORY NUMBER or ?... =>`
4.	Type the number for the ACD pilot to modify.	The console displays: `USER GROUP... =>`
5.	Type the number of the user group associated with the ACD pilot.	The console displays: `Specify ACD Field to Modify or - or ?... =>`

6.	Type **CRS** (Call Route Scheduling).	If Call Route Scheduling is already enabled on the system, the console displays:
		
		`ENABLE CRS ROUTING (Y/N)... Y =>`
		
		If Call Route Scheduling is not already enabled on the system, the console displays:
		
		`ENABLE CRS ROUTING (Y/N)... N =>`
		
		Note
		
		Call Route Scheduling may not be enabled the first time you activate the capability. It will always be enabled when you reactivate or deactivate Call Route Scheduling (otherwise, it could not have been active in the past).

Step	Action	Result
7.	• If Call Route Scheduling *is not already enabled* on the system, go to step 8. **Or** • If Call Route Scheduling *is already enabled* on the system, go to step 11.	

8.	Type **Y**.	The console displays:
		`TABLE CHANGE PERFORMED`
		`CRS TRANSLATION: TOD,DOW,DOY;`
		`? or Return=END... =>`

9.	Press <**Enter**>.	The console displays:
		`ACD CTRL TREATMENT: TOD,DOW,`
		`DOY,FRC,UNF or ?... =>`

10.	Go to step 13.	

11.	Type **Y**.	The console displays:
		`CHANGE ACD CONTROL`
		`INFORMATION...Y/N... =>`

12.	Type **Y**.	The console displays:
		`ACD CTRL TREATMENT: TOD,DOW,`
		`DOY,FRC,UNF or ?... =>`

13.	• Go to Step 11 to *deactivate* Call Route Scheduling. • Go to Step 17 to *activate* Call Route Scheduling.	

14.	Type **FRC** to deactivate Call Route Scheduling.
	See "Call Route Scheduling Parameters" for complete details.
		The console displays:
		`FORCE TO CALL GUIDE (1-4 or`
		`(N) NIGHT SERVICE)... =>`

15.	• Type a number from **1** to **4** (to select one of the pilot's main call guides)
	Or
	• Type **N** (to select the pilot's night call guide).
		The console displays:
		`Specify ACD Field to Modify`
		`or - or ?... =>`

16.	Go to step 18.	

Step	Action	Result
17.	Type an appropriate ACD CTRL (Control) Treatment value, such as **UNF**, to activate Call Route Scheduling. See "Call Route Scheduling Parameters" details.	The console displays: `Specify ACD Field to Modify or - or ?... =>`
18.	Press <**Enter**>.	The console displays all of the parameters for the ACD steering pilot, followed by: `DOES UPDATE VERIFY?`
19.	Type **Y**.	The system saves the modified pilot parameters, including the activation or deactivation of Call Route Scheduling.

Build or Modify Call Route Scheduling Tables

Use this procedure to build Time of Day (TOD), Day of Week (DOW), and Day of Year (DOY) tables. Each ACD steering pilot has its own TOD, DOW, and DOY tables. You must build Call Route Scheduling tables for each pilot in the following order:

- TOD tables (up to 12)

- DOW table

- DOY table

Access Call Route Scheduling (CRS)

Step	Action	Result

1.	At the main Administrative Console prompt:
	Type **ACD**.
		The console displays:
		
		`SELECT COMMAND => ACD`
		
		`SELECT MODE: PRINT, DISPLAY, UPDATE, TITLES, CHANGE, ADMIN =>`

2.	Type **U**.	The console displays: `SELECT MODE: C-Create; M-Modify; D-Delete... =>`
3.	Type **M**.	The console displays: `PILOT DIRECTORY NUMBER or ?... =>`
4.	Type the number for the ACD pilot to modify.	The console displays: `USER GROUP... =>`

Step	Action	Result

5.	Type the number of the user group associated with the ACD pilot.	The console displays:
		
		`Specify ACD Field to Modify`
		`or - or ?... =>`

6.	Type **CRS** (Call Route Scheduling).	If Call Route Scheduling is already enabled on the system, the console displays:
		
		`ENABLE CRS ROUTING`
		`(Y/N)... Y =>`
		
		If Call Route Scheduling is not already enabled on the system, the console displays:
		
		`ENABLE CRS ROUTING`
		`(Y/N)... N =>`
		
		Note
		
		Call Route Scheduling may not be enabled the first time you activate the capability. It will always be enabled when you reactivate or deactivate Call Route Scheduling (otherwise, it could not have been active in the past).

7.	• If Call Route Scheduling is already enabled on the system, go to step 8. • If Call Route Scheduling is not already enabled on the system, go to step 11.	

8.	Type **Y**.	The console displays:
		
		`CHANGE ACD CONTROL`
		`INFORMATION...Y/N... =>`

9.	Type **N**.	The console displays:
		
		`CRS TRANSLATION: TOD,DOW,DOY;`
		`or Return = END... =>`

10.	Go to Step 12.	

11.	Type **Y**.	The console displays:
		
		`TABLE CHANGE PERFORMED`
		
		`CRS TRANSLATION: TOD,DOW,DOY;`
		`or Return = END... =>`

12.	Go to the TOD procedure.	

Time of Day (TOD)

Step	Action	Result

1.	Type **TOD** (Time of Day).	The console displays:
		
		`TOD TABLE ENTRY (1-12) or ?`
		`or Return=END... =>`

2.	Type a number from 1 to 12 to indicate the TOD schedule to create or modify.	The console displays:
		
		`TOD PERIOD INFORMATION or ?`
		`or Return=END... =>`

3.	Type a TOD period definition in the appropriate form. See "Call Route Scheduling Parameters" for details.	The console displays:
		
		`TOD PERIOD INFORMATION or ?`
		`or Return=END... =>`

4.	Repeat step 14 until you have entered all TOD period entries for the TOD schedule.	The console displays the entire TOD schedule, followed by: `DOES UPDATE VERIFY?... =>`
5.	Press **\<Enter\>**	

6.	Type **Y**.	The system saves the TOD schedule. The console displays:
		
		`TABLE CHANGE PERFORMED`
		
		`TOD TABLE ENTRY (1-12) or ?`
		`or Return=END... =>`

7.	Repeat steps 13 through 16 until you have created as many as 12 TOD schedules for this pilot.	

8.	Press **\<Enter\>.**	The console displays:
		
		`CRS TRANSLATION: TOD,DOW,DOY;`
		`or Return = END... =>`

9.	Go to the DOW procedure.	

Day of Week (DOW)

Step	Action	Result

1.	Type **DOW** (Day of Week).	The console displays:
		
		`DAY OF WEEK or ? or`
		`Return=END... =>`

2.	Type a Day of Week entry in the appropriate form. See "Call Route Scheduling Parameters" for details.	The console displays:
		
		`DAY OF WEEK or ? or`
		`Return=END... =>`

3.	Repeat step 19 until you have defined a	The console displays the DOW

Step	Action	Result
	Day of Week entry for every day of the week. By default, the system assigns the night call guide to any day of the week you do not define.	schedule, followed by: `DOES UPDATE VERIFY?`
4.	Press **<Enter>.**	
5.	Type **Y**.	The system saves the DOW schedule. The console displays: `TABLE CHANGE PERFORMED` `CRS TRANSLATION: TOD,DOW,DOY; or Return = END... =>`
6.	Go to the DOY procedure.	

Day of Year (DOY)

Step	Action	Result
1.	Type **DOY** (Day of Year).	The console displays: `HOLIDAY DATE or ? or Return=END... =>`
2.	Type a Holiday Date in the appropriate form. See "Call Route Scheduling Parameters" for details.	The console displays: `HOLIDAY DATE or ? or Return=END... =>`
3.	Repeat step 23 until you have selected all dates of the year to treat as holidays.	The console displays: `HOLIDAY TREATMENT or ? or Return=END... =>`
4.	Press **<Enter>.**	
5.	Type a Holiday Treatment in the appropriate form. See "Call Route Scheduling Parameters" for details.	The console displays: `NON-HOLIDAY TREATMENT or ?... =>`
6.	Type a Non-holiday Treatment in the appropriate form. See "Call Route Scheduling Parameters" for details.	The console displays: `EXCEPTION DATE or ? or Return=END... =>`
7.	Type an Exception Date in the appropriate form. See "Call Route Scheduling Parameters" for details.	The console displays: `EXCEPTION TREATMENT or ?... =>`
8.	Type an Exception Treatment in the appropriate form. See "Call Route Scheduling Parameters" for details.	The console displays: `EXCEPTION DATE or ? or Return=END... =>`

Step	Action	Result
9.	Repeat steps 27 and 28 until you have defined all of the exception dates and the corresponding treatments for each.	
10.	Press **<Enter>.**	The console displays the complete DOY schedule, followed by: `DOES UPDATE VERIFY? =>`
11.	Type **Y.**	The system saves the DOY schedule

Ending Conditions

The ACD steering pilot includes Call Route Scheduling tables.

Table 31 shows ACD pilot parameters that control the Call Route Scheduling capability for a specific ACD steering pilot.

Table 31. Call Route Scheduling Parameters

Call Route Scheduling Parameter	Description
Enable CRS Routing	Enables or disables Call Route Scheduling for the ACD steering pilot. "Y" enables the capability. "N" disables the capability.
CRS Translation: TOD, DOW, DOY	Access one of the following types of schedules: • Time of Day (TOD) • Day of Week (DOW) • Day of Year (DOY)
TOD Table Entry	Selects the number of a Time of Day schedule for the pilot, from 1 to 12.

Call Route Scheduling Parameter	Description
TOD Period Information	Defines a specific period in a Time of Day schedule. TOD period definitions are in the following form: **First Begin Time,Next Begin Time,CG** Define each time in the form **HH:MM**, where `HH` is the hour (24-hour time) and `MM` is the minute. **Next beginning times** are optional. For `CG`: • Choose **N** (to indicate the pilot's night call guide); Or • A number from **1 to 4** (to select one of the pilot's four main call guides). **Note** A pilot's main call guide numbers (always 1 through 4) do not match the call guide numbers that the system database assigns to a call guide (through the ACDC command). A pilot can, for example, use the system's call guide 24 as any one of its four main call guides. Aastra recommends that your ACD design plan record the system's call guide numbers for each pilot. For details, see "ACD Design Principles" in the *ACD Administration Procedures* manual (2542-*nnn*). **Examples** • **09:15,13:30,2** - Sets the TOD schedule to activate the pilot's second call guide at 9:15 am and again at 1:30 pm. It includes a second beginning time because another entry activates a different call guide some time after 9:15. • **14:00,N** sets the TOD schedule to activate the pilot's night call guide at 2:00 pm. **Note** The first time period in a TOD schedule must be 00:00 (midnight).

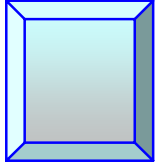| Call Route Scheduling Parameter	Description
Day of Week	Defines the call guide activation schedule for one of the days of the week. Each DOW entry is in the form **`Day,Type,#.`** For **`Day`** – Use a three-letter abbreviation for a day of the week (`MON, TUE, WED, THU, FRI, SAT,` or `SUN`). For **`Type`** - Use either of the following: • **`CG`** (call guide) - Use a number from 1 to 4 (to select one of the pilot's four main call guides) for `#`. • **`TOD`** (Time of Day schedule) - Use the number of one of the pilot's TOD schedules for `#`. • **`N`** (night call guide) - Do not include a number. A DOW schedule either activates a single call guide for an entire day or changes between call guides throughout the day in accordance with a TOD schedule. A DOW schedule is only in effect, however, in accordance with the system's Day of Year (DOY) schedule. By default, the system assigns the pilot's night call guide for any day of the week you don't specify. **Examples:** • **`MON,TOD,2`** - Sets the pilot to activate its second Time of Day schedule every Monday. • **`TUE,CG,3`** - Sets the pilot to activate its third call guide every Tuesday. (The pilot's third call guide remains active all day every Tuesday.) • **`SUN,N`** - Sets the pilot to activate its night call guide every Sunday. (The pilot's night call guide remains active all day every Sunday.)

Call Route Scheduling Parameter	Description
Holiday Date	Defines all of the specific dates on which the pilot will use its Holiday Treatment to activate call guides. Holiday dates are in the form: **MM/DD** Where **MM** is the numerical value for the month (beginning with 0 or 1) and **DD** is the numerical value for the day (beginning with 0, 1, 2, or 3). Use a comma to separate two or more holiday dates. **Examples:** • **01/01** - Defines January 1 as a holiday. • **01/01,05/29,12/25** - Defines January 1, May 29, and December 25 as holidays.
Holiday Treatment	Defines how the pilot activates call guides on any date that the DOY schedule indicates as a holiday. A Holiday Treatment either activates a single call guide each holiday or changes between call guides throughout each holiday in accordance with a TOD or DOW schedule. Holiday Treatments are in the form: **Type,#** For **Type**, use either of the following: • **CG** (call guide) - Use a number from 1 to 4 (to select one of the pilot's four main call guides) for **#**. • **N** (night call guide) - Use the number of one of the pilot's TOD schedules for **#**. • **TOD** (Time of Day Schedule) - do not include a number. • **DOW** (Day of Week) - do not include a number. **Examples:** • **CG,4** – Sets the pilot to use it fourth call guide all day on any date that the DOY schedule indicates as a holiday. • **TOD,2** - Sets the pilot to use its second TOD schedule on any date that the DOY schedule indicates as a holiday. • **DOW** – Sets the pilot to use its DOW schedule on any date that the DOY schedule indicates as a holiday.

Call Route Scheduling Parameter	Description
Non-holiday Treatment	Defines how the pilot activates call guides on any date that the DOY schedule indicates as a non-holiday. In a DOY schedule, any date that is not specifically defined as a holiday or an exception automatically gets the Non-holiday treatment.
	A Non-holiday Treatment either activates a single call guide each non-holiday or changes between call guides throughout each non-holiday in accordance with a TOD or DOW schedule.
	Non-holiday Treatments are in the form:
	`Type,#`
	For `Type`, use either of the following:
	• `CG` (call guide) - Use a number from 1 to 4 (to select one of the pilot's four main call guides) for `#`.
	• `N` (night call guide) - Do not include a number.
	• `TOD` (Time of Day Schedule) - Use the number of one of the pilot's TOD schedules for `#`.
	• `DOW` (Day of Week) - Do not include a number.
	Examples:
	• `CG,4` – Sets the pilot to use it fourth call guide all day on any date that the DOY schedule does not indicate as a holiday or an exception.
	• `TOD,2` - Sets the pilot to use its second TOD schedule on any date that the DOY schedule does not indicate as a holiday or an exception.
	• `DOW` - Sets the pilot to use its DOW schedule on any date that the DOY schedule does not indicate as a holiday or an exception.

Call Route Scheduling Parameter	Description
Exception Date	Defines a specific date on which the pilot will apply an exception treatment to activate call guides. Exception dates are in the form: `MM/DD` Where `MM` is the numerical value for the month (beginning with 0 or 1) and `DD` is the numerical value for the day (beginning with 0, 1, 2, or 3). Use a comma to separate two or more exception dates. **Examples:** • Entry `03/29` - Defines March 29 as an exception date. • Entry `02/27,03/29,05/29,09/20` - Defines February 27, March 29, May 29, and September 20 as exception dates.
Exception Treatment	Defines how the pilot activates call guides on a corresponding exception date. You assign one exception treatment for each exception date. An exception treatment either activates a single call guide each exception day or changes between call guides throughout each exception day in accordance with a TOD schedule. Exception treatments are in the form: `Type,#` For `Type`, use either of the following: • `CG` (call guide) - Use a number from 1 to 4 (to select one of the pilot's four main call guides) for `#`. • `N` (night call guide) - Do not include a number. • `TOD` (Time of Day Schedule) - Use the number of one of the pilot's TOD schedules for `#`. • `DOW` (Day of Week) - Do not include a number. **Examples:** • `CG,4` – Sets the pilot to use its fourth call guide all day on the corresponding exception date. • `TOD,2` - Sets the pilot to use its second TOD schedule on the corresponding exception date.

Call Route Scheduling Parameter	Description
ACD CTRL (Control) Treatment	Activates or deactivates Call Route Scheduling. Allows you to deactivate the capability while you create or update Call Route Scheduling parameters. While Call Route Scheduling is inactive, the system uses an existing call guide continuously. After you save new or modified Call Route Scheduling parameters to the switch database, the ACD CTRL Treatment parameter allows you to activate them. The following table defines the possible values for this parameter.

Value	Description
TOD,#	Activates Call Route Scheduling, but instructs the system to begin by applying a specific TOD schedule. For #, use a number from 1 to 12 to select one of the pilot's TOD schedules.
DOW	Activates Call Route Scheduling, but instructs the system to begin by applying a specific DOW schedule. The system immediately applies appropriate DOW exceptions.
DOY	Activates Call Route Scheduling, but instructs the system to begin by applying a specific DOY schedule. The system immediately applies appropriate DOY exceptions.
FRC	Deactivates Call Route Scheduling. Defines a specific call guide that the system applies continuously until you select a different ACD CTRL treatment.
UNF	Activates Call Route Scheduling. The system applies appropriate changes to call guide control at the *next* scheduled change based on the Call Route Scheduling parameters.

See "Activate or Deactivate Call Route Scheduling" for a procedure.

Chapter 6
Call Guide Error Handling

Overview

Any call guide can include a special error handling section, a section of code that the system only processes when a call guide processing error occurs. When an error does occur, processing branches to the first step in the error handling section. Running through the steps in the error handling section, processing handles the error by reporting an alarm and returning to a step in the active call guide at which processing continues successfully.

Error Handling Section

An error handling section begins with an ERROR label. By referencing the ERRCGN, ERRCODE, and ERRSTEP system variables, the system determines the nature of the problem and an action to take.

Table 32. Error Handling System Variables

System Variable	Description
ERRCGN	The number of the call guide in which the error occurred
ERRCODE	A code that defines the error or type of error
ERRSTEP	The number of the call guide step at which the error occurred.

An Alarm step in the error handling section generates an appropriate alarm message on the switch's system console to report such problems. See "Alarm Step."

An error handling section can include any call guide commands. Blocks of associated call guide steps, such as the following, however, must be entirely within the error handling section:

- Agent Super Group/End Agent Super Group block

- Do/Repeat block

- Get Digits/End Get Digits block

- If/Else/End If block

An error handling section must have a Goto step that specifies a step in the main call guide at which to return processing. As an option, this Goto step can use a variable that targets the step immediately following the step at which the error occurred. An error handling section can include If/Else/End If blocks that select Goto steps conditionally (resuming normal call processing at different steps based on different conditions).

Returning to any call guide step outside the error handling section ends error handling and resumes normal call guide processing.

Special Error Handling Conditions

The following special error handling conditions are possible:

- Another error occurs during error handling
- the call guide does not include an error handling section
- The number of processing errors exceeds the system's allowable limit
- The processing error is too severe for error handling

Error Occurs During Error Handling

If an error occurs during error handling, the system does the following:

Action	Description
1.	Reports an alarm on the system console.
2.	Removes the call from the call queue of all agent group pilots and CallNet groups to which the call is queued.
3.	Ends any announcements being played.
4.	Plays reorder tone to the caller.

Call Guide Does Not Include an Error Handling Section

If the call guide does not provide an error handling section, the system does the following:

Action	Description
1.	Reports a default alarm on the system console.
2.	Removes the call from the call queue of all agent group pilots and CallNet groups to which the call is queued.
3.	Ends any announcements being played.
4.	Plays reorder tone to the caller.

Number of Processing Errors Exceeds System Limit

If the number of processing errors exceeds the allowable error limit, the system does the following:

Action	Description
1.	Reports an alarm to the system console that indicates that processing errors have exceeded the system limit.
2.	Removes the call from the call queue of all agent group pilots and CallNet groups to which the call is queued.

Action	Description
3.	Ends any announcements being played.
4.	Plays reorder tone to the caller.

Processing Error is Too Severe for Error Handling

If an error is so severe that error handling is not possible, the system does the following:

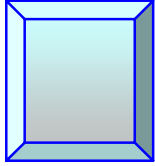| Action	Description
1.	Reports an alarm with an error code of 2000 or above (critical errors) to the system console.
2.	Removes the call from the call queue of all agent group pilots and CallNet groups to which the call is queued.
3.	Ends any announcements being played.
4.	Plays reorder tone to the caller.

Chapter 7
Manual Overflow

The Automatic Call Distribution (ACD) capability of PointSpan switches supports a manual overflow feature. When a supervisor activates manual overflow, the system routes all calls in queue to any overflow pilots (as defined in the active call guide). Manual overflow continues automatically until a supervisor cancels it. To route calls again to the primary pilot, a supervisor must cancel manual overflow.

Manual overflow, however, only routes calls for Agent Group and CallNet steps that do not include any user-defined variable, a system variable, or a pre-defined function parameters.

Table 33 shows three call guides involved in manual overflow.

Table 33. Manual Overflow Example

Call Guide 100	Call Guide 200	Call Guide 300
Call Guide Call 200	Speak Announcement	Speak Announcement
Agent Group 4000 (no variables)	Last	Agent Group 8000 (no variables)
Agent Group 5000 (includes a variable)		Agent Group 7001 (includes a variable)
Agent Group 6000 (no variables)		Agent Group 7002 (no variables)
Wait 20 seconds		Last
Branch to Call Guide 300		
Last		

A call arrives for pilot 3000, for which call guide 100 is active. After the system calls call guide 200, an announcement trunk plays an announcement to the caller. During the announcement, a supervisor activates manual overflow for pilot 3000. Call guide 100, still active for pilot 3000, processes the overflow. The Call Guide Call step did not make call guide 200 the active call guide. With call guide 100 still active, manual overflow queues all calls to agent groups 4000 and 6000. The switch does not queue calls to agent group 5000, because that Agent Group step includes a variable. As long as manual overflow is active for pilot 3000, the system queues all calls unconditionally to agent groups 4000 and 6000. Later, a supervisor can cancel manual overflow to queue calls again to pilot 3000.

In another scenario, another call arrives for pilot 3000 while manual overflow is not active. Again, the system calls call guide 200 and an announcement trunk plays an announcement to the caller. After the announcement, call processing returns to step 2 of call guide 100. The system queues calls to agent group 4000, then queues calls to agent groups 5000 and 6000. The system then waits 20 seconds then branches to call guide 300. Because processing *branched*, call guide 300 becomes the active call guide. With 300 as the active call guide, another supervisor activates manual overflow for pilot 3000. Manual overflow queues calls to agent groups 8000 and 7002. The switch does not queue calls to agent group 7001, because that Agent Group step includes a variable.
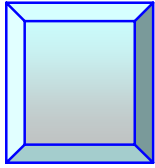
Chapter 8
OAI Controlled Call Guide System Variables

Overview

PointSpan Version 3.4.F offers the new AQT to PointSpan feature that enables Centergy Reporting to send the average queue time (AQT) for selected pilots to the PointSpan switch utilizing the OAI interface. New OAI Controlled Call Guide System Variables for AQT are accessed through the ACD call guide.

The AQT to PointSpan feature requires PointSpan Version 3.4.F and Centergy Reporting 1.7.

OAI Controlled Call Guide System Variables

There are five OAI Controlled Call Guide System Variablesfor each ACD Pilot in the PointSpan 6880, accessible in the ACD Call Guide.

These system variables are read-only within Call Guide processing. External OAI applications control the values contained in these system variables.

UPDATE_VARIABLE ARC Message

An OAI application can update any of these system variables utilizing the UPDATE_VARIABLE ARC message. The message identifies:

- ACD Pilot
- OAI Controlled Call Guide System Variable
- Expiration time: If the OAI application indicates a non-zero expiration time (zero means there is no expiration), the PointSpan 6880 Call Processing expects to receive another UPDATE_VARIABLE message within the time specified. If an UPDATE_VARIABLE message is not received, the value of the variable is set to "expired".

The UPDATE_VARIABLE ARC is supported only for the specified system variables.

Variable Description

Table 34. OAI Controlled Call Guide System Variable Description

Variable	Description	Default Values
CTGYAQT (pilot, user group) Centergy Reporting Average Queue Time	A 4-byte signed integer read-only variable that contains the number of seconds that a call is expected to be in queue (Average Queue Time – AQT) for the specified ACD Pilot as calculated by the Centergy Reporting application. The contents of CTGYAQT cannot be changed from the ACD Call Guide. The content is modified only by the Centergy Reporting application using the UPDATE_VARIABLE ARC message. The information contained in this system variable can be used for the Intelligent Queuing application in place of the average queue time (CALCETA) calculated by the algorithm of the PointSpan 6880 call processing. The Centergy Reporting algorithm is a more robust algorithm and may be more accurate than that of call processing, given different call flow scenarios.	The value of CTGYAQT defaults to zero until an UPDATE_VARIABLE ARC message is received from the Centergy Reporting application. Call Processing does not request this information from the Centergy Reporting application. If Centergy Reporting does not issue an UPDATE_VARIABLE ARC for a specific ACD pilot then the value of CTGYAQT for the ACD pilot remains zero. An UPDATE_VARIABLE ARC message must be received for each individual ACD pilot. There is no mechanism available to set all pilots to a value based on a single UPDATE_VARIABLE ARC.
PLTEADS1 (pilot, user group) Pilot 1 Variable for AASTRA Applications	A four-byte signed integer read-only variable. It is a generic system variable available for each ACD pilot. The contents of PLTEADS1 cannot be changed from an ACD Call Guide. The content of PLTEADS1 is modified by an OAI application using the UPDATE_VARIABLE ARC message and can contain a numerical value from -2,147,483,648 to 2,147,483,647. This variable is intended for use by AASTRA applications only. The OAI interface to update this variable is not published to 3rd party application developers.	The default value is zero until an UPDATE_VARIABLE ARC message is received from an OAI application. If an OAI application does not issue an UPDATE_VARIABLE ARC for a specific ACD pilot then the value of PLTEADS1 for the ACD pilot remains zero. An UPDATE_VARIABLE ARC message must be received for each individual ACD pilot. There is no mechanism available to set PLTEADS1 for all pilots to a value based on a single UPDATE_VARIABLE ARC.

Variable	Description	Default Values
PLTEADS2 (pilot, user group) Pilot 2 Variable for Aastra Applications	A 16-byte TBCD digit read-only variable that can contain up to 30 TBCD digits. It is a generic system variable available for each ACD pilot. The contents of PLTEADS2 cannot be changed from an ACD Call Guide. It can only be modified by an OAI application using the UPDATE_VARIABLE ARC message. This variable is intended for use by Aastra applications only. The OAI interface to update this variable is not published to 3rd party application developers.	The value of PLTEADS2 defaults to a Null TBCD digit string (no digits) until an UPDATE_VARIABLE ARC message is received from an OAI application. If an OAI application does not issue an UPDATE_VARIABLE ARC for a specific ACD pilot, then the value of PLTEADS2 for the ACD pilot remains a NULL digit string. An UPDATE_VARIABLE ARC message must be received for each individual ACD pilot. There is no mechanism available to set PLTEADS2 for all pilots to a value based on a single UPDATE_VARIABLE ARC.
PLTUSER1 (pilot, user group) Pilot 1 Variable for 3rd Party User applications.	A four-byte signed integer read-only variable. It is a generic system variable available for each ACD pilot. The contents of PLTUSER1 cannot be changed from an ACD Call Guide. The content can only be modified by an OAI application using the UPDATE_VARIABLE ARC message. This variable is intended for use by any OAI application.	The value of PLTUSER1 defaults to zero until an UPDATE_VARIABLE ARC message is received from an OAI application. If an OAI application does not issue an UPDATE_VARIABLE ARC for a specific ACD pilot, then the value of PLTUSER1 for the ACD pilot remains zero. An UPDATE_VARIABLE ARC message must be received for each individual ACD pilot. There is no mechanism available to set PLTUSER1 for all pilots to a value based on a single UPDATE_VARIABLE ARC.
PLTUSER2 (pilot, user group) Pilot 2 Variable for 3rd Party User applications.	A 16-byte TBCD digit read-only variable that can contain up to 30 TBCD digits. It is a generic system variable available for each ACD pilot. The contents of PLTUSER1 cannot be changed from an ACD Call Guide. The content can only be modified by an OAI application using the UPDATE_VARIABLE ARC message. This variable is intended for use by any OAI application.	The value of PLTUSER2 defaults to a NULL TBCD digit string (no digits) until an UPDATE_VARIABLE ARC message is received from an OAI application. If an OAI application does not issue an UPDATE_VARIABLE ARC for a specific ACD pilot then the value of PLTUSER2 for the ACD pilot remains a NULL digit string. An UPDATE_VARIABLE ARC message must be received for each individual ACD pilot. There is no mechanism available to set PLTUSER2 for all pilots to a value based on a single UPDATE_VARIABLE ARC.

OAI Controlled Call Guide System Variables in a Call Guide

An ACD call guide uses the OAI Controlled Call Guide System Variables in the same manner as any other Call Guide System Variable in the PointSpan 6880 ACD package.

A call guide references the OAI Controlled Call Guide System Variables using the following syntax:

- Var_Name (pilot_DIRN, user_group)
- Where: Var_Name is the name of the desired variable
  - Pilot_DIRN is the directory number of the desired ACD pilot
  - User_group is the user group of the desired ACD pilot

Table 35. OAI Control Call Guide System Variable Summary

System Variable	Parameters	Type	Usage	Description
CTGYAQT	• Optional Pilot Directory Number • Optional Pilot User Group	Integer	Read-only	Average queue time in seconds for the pilot from the Centergy Reporting application.
PLTEADS1	• Optional Pilot Directory Number • Optional Pilot User Group	Integer	Read-only	Generic application dependent variable. Intended for use by AASTRA applications only.
PLTEADS2	• Optional Pilot Directory Number • Optional Pilot User Group	TBCD Digit String	Read-only	Generic application dependent variable. Intended for use by AASTRA applications only.
PLTUSER1	• Optional Pilot Directory Number • Optional Pilot User Group	Integer	Read-only	Generic application dependent variable. Intended for use by any OAI application.
PLTUSER2	• Optional Pilot Directory Number • Optional Pilot User Group	TBCD Digit String	Read-only	Generic application dependent variable. Intended for use by any OAI application.

Specify the ACD Pilot for an OAI Controlled Call Guide System Variable

An ACD call guide specifies an ACD pilot for an OAI Controlled Call Guide System variable in 3 ways:

Table 36. Specify ACD Pilot for OAI Controlled Call Guide System Variables

Variable	Description	Result
CTGYAQT(5000,20)	Specifies a directory number and user group for an ACD pilot	If a directory number and user group are specified, the system returns the value of CTGYAQT for the specified ACD pilot
CTGYAQT(5000,) or CTGYAQT(5000)	Specifies a directory number for an ACD pilot, but not the user group	If a directory number is specified but not a user group, the user group of the current pilot for the call being processed is used to determine the specific ACD pilot, and the system returns the value of CTGYAQT for the ACD pilot
CTGYAQT()	Does not specify a directory number or user group	If CTGYAQT is accessed without a directory number or user group, the value of CTGYAQT for the current pilot for the call being processed is returned.

Use an OAI Application to Update an OAI Controlled Call Guide System Variable

An OAI application updates an OAI Controlled Call Guide System Variable utilizing the UPDATE_VARIABLE ARC message.

Process for OAI Controlled System Variable Updates

The following process occurs when an OAI Controlled Call Guide System Variable is updated:

- The contents of the message are validated
- The specified variable is updated
- The data expiration time for the specified variable is reset for the entire Call Center
- A MRM (Message Response Message) is returned to the updating application

Message Contents

The UPDATE_VARIABLE ARC message contains:

- ACD Pilot identification
- Variable name
- Data expiration time
- Variable value

Table 37. OAI Message Contents

Message Content	Description
ACD Pilot Identification	An ACD Pilot is identified by a directory number and user group. The directory number and user group of the desired ACD pilot are required in order to identify the ACD Pilot. Call processing does not assume any defaults for omitted information.
	If an invalid ACD Pilot is identified (bad directory number or user group), then call processing returns a MRM to the OAI application indicating an invalid Pilot was specified.
Variable Name	An OAI Controlled Call Guide System Variable is specified by its ASCII name. The valid variable names:
	• CTGYAQT
	• PLTEADS1
	• PLTEADS2
	• PLTUSER1
	• PLTUSER2
	If one of these names is not specified, then a MRM is returned to the OAI application indicating an invalid variable name was received.
Data Expiration Time	The data expiration time indicates how long (in seconds) the data value for the specified variable in the message is considered valid. An expiration time of zero indicates the data does not expire.
	The data expiration time received affects the data expiration for all variables of the same type (CTGYAQT, PLTEADS1, PLTEADS2, PLTUSER1, or PLTUSER2) for each pilot in the same Call Center as the pilot being updated by the UPDATE_VARIABLE ARC.
	The data expiration time is updated each time a UPDATE_VARIABLE ARC is processed. The last UPDATE_VARIABLE ARC received is the current value.
	If the expiration time is non-zero, then call processing expects the data will be updated by the OAI application within the specified time.

Message Content	Description
Variable Value	The Variable value passed in the message is validated and stored in the specified system variable.
	The data sent in the variable value is validated based on the data type of the system variable that was specified in the UPDATE_VARIABLE message.
	If the data value sent in the UPDATE_VARIABLE message is invalid, the current value of the requested variable remains unchanged and the data expiration time remains unchanged.
	Data Validation:

Type	Validation
Integer Data	The Data for an Integer variable passed in the message must be 1 to 4 bytes in length. If data of an integer variable is more than 4 bytes then the data is invalid.
	If the data is invalid then a MRM is returned indicating an invalid data value was received.
TBCD data	The data for a TBCD variable must be 0 to 15 bytes in length (0 to 30 TBCD digits). A data length of zero indicates a NULL digit string.
	If the TBCD data received exceeds 15 bytes then a MRM is returned indicating an invalid data value was received.

Data Expiration Time Processing

The UPDATE_VARIABLE message specifies the Data Expiration Time in seconds. This time is used to guarantee the data contained in an OAI Control Call Guide System Variable is current. The data expiration time is a 2-byte unsigned data field. If the data expiration time specified in the message is 0, then the data does not expire.

The system manages the data expiration times on a per call center basis for each of the five OAI Controlled Call Guide System Variables. When an UPDATE_VARIABLE ARC is received for a pilot, the data expiration time for the specified variable is updated for the call center of the specified pilot.

When a variable is updated for a pilot, the expiration time change affects the expiration time for *all pilots in the call center*. Expiration time is not kept for the individual pilots.

The data expiration time is checked each time an OAI Controlled Call Guide System Variable is accessed (either a "read" by call guide processing or a "write" by the UPDATE_VARIABLE ARC).

Call Guide Read of an Expired OAI Controlled Call Guide System Variable

- The specified variable is checked to see if the data has expired.
- If the data has expired:
  – The value of the requested variable is set to "expired".
  – The Call Center for the specified pilot is determined.
  – The specified variable is set to "expired" for all pilots in the Call Center.
  – The "expired" data value is returned to Call Guide processing.
- If the data has not expired:
  – The value of the requested variable for the specified pilot is returned to Call Guide processing.

OAI Update of an Expired OAI Controlled Call Guide System Variable

- The specified variable is checked to see if the data has expired.
- If the data has expired:
  – The value of the requested variable for the specified pilot is set to the value indicated in the UPDATE_VARIABLE ARC.
  – The Call Center for the specified pilot is determined.
  – The requested variable is set to "expired" for all other pilots in the Call Center.
  – A MRM is returned to the OAI application indicating the update was completed and the previous data had expired.
- If the data has not expired:
  – The value of the requested variable for the specified pilot is set to the value indicated in the UPDATE_VARIABLE ARC.
  – The expiration time for the variable is updated for the Call Center of the pilot requested in the ARC.
  – A MRM is returned to the OAI application indicating the update was completed and the previous data had not expired.

Expired Values

The "expired" value for integer and TBCD variables are as follows:

Table 38. Expired Values

Expired Variable Type	Value
Integer	-2147483648 (0x80000000)
TBCD	TBCD digit string '########' (0xCCCCCCCC)

Initialization and Recovery for OAI Controlled Call Guide System Variables

ECS Cold Initialization

All OAI Controlled Call Guide System Variables are initialized at ECS Cold Start.

Table 39. Value at ECS Coldstart

Variable Type	Value Set at Initialization
Signed Integer variables	-2147483648 (0x80000000)
TBCD Digit variables	######## (0xCCCCCCCC)

ECS Warm Start

The system maintains the current contents of all OAI Controlled Call Guide System Variables during the ECS warm start process. Each variable is checked to determine if the data expired during the ECS Warm start process. If the variable expired, the value is changed to the "expire" value.

ECS Switchover

The system updates the contents of all OAI Controlled Call Guide System Variables on the secondary ECS when a system variable is updated. All system variable contents are maintained following an ECS switchover. Each variable is checked to determine if the data expired during the ECS Warm start process. If the variable expired, the value is changed to the "expire" value.

OAI-3460 Alarm

Note

AIP for the OAI-3460 alarm is initially configured to report the alarm 5 times within a 15 minute time window.

Table 40. OAI -3460 Alarm

MESSAGE NUMBER:	03460
EQUIPMENT CLASS:	OAI
ALARM TYPE:	MIN

REASON:	An OAI controlled system variable has expired. No update was received in the time specified by the controlling OAI application. This alarm displays once for each variable in each call center when call processing discovers that the variable has expired. This alarm is throttled.
RESULT:	All of the variable is nulled for all pilots in the call center.
DATA WORD 0:	ACD Pilot facility number.
DATA WORD 1:	OAI controlled Call Guide System Variable name.
DATA WORD 2:	Call center number.
DATA WORD 3:	N/A
REQUIRED ACTION	• Verify that the application performing the update was operational. • Verify that all network connections connecting the switch and the OAI application are operational. • Check OAI Channels.

Man Machine Command Changes

ACDC

OAI Controlled Call Guide System Variables can be used in a variety of ways, such as playing Average Queue Time to the caller, and using the variables as conditions for other actions in the call guide.

Note

The following examples are not intended for implementation on your system. Call guide content varies depending upon your site call flow requirements.

Play AQT in the ACD Call Guide

The following call guide uses the new system variables to play the average queue time (AQT) to the caller. The AQT duration can be spoken from the standard IVS phrase set which includes phrases accessed by call processing to speak the correct time values to the caller.

Note

- The Speak IVS Data (SDAT) call guide step plays a single variable or value to a caller, translating data values into audio phrases. For example, it can translate 6000 into "six, zero, zero, zero."
- You do not have to use all of the variables in your call guide. You can play the AQT utilizing only the CTGTAQT variable.

Call Guide

```
SELECT COMMAND => ACDC
SELECT MODE:  PRINT, DISPLAY, UPDATE, TITLES => U
UPDATE MODE: C-Create; M-Modify; D-Delete.... => C
SELECT SUBCOMMAND or ?......................C =>
CALL GUIDE NUMBER, A, U or ?................ => 10
ENTER TITLE:....._____ =>
USER GROUP NUMBER: (1-1000)................. => 1


*** Define Call Guide Parameters:
PARAMETER  1 TYPE: I, D, RETURN=end, or ?.... =>
STEP 1  : TYPE, RETURN=end or ?............... => SDAT
IVS GROUP or ?............................... => 12
IVS PHRASE GROUP or ?........................ => 1
WAIT TIME FOR IVS DEVICE (SECONDS), I, ?...10 =>
UNAVAILABLE IVS DEVICE STEP, N=NEXT or ?....N =>
DATA TO SPEAK or ?.......................... => CTGYAQT(52003,1)
FORMAT TO SPEAK DATA or ?...............DIG => NUM
AGENT AVAILABLE INTERRUPT: Y, N, or ?......Y =>
STEP 2  : TYPE, RETURN=end or ?.............. => SDAT
IVS GROUP or ?............................... => 12
IVS PHRASE GROUP or ?........................ => 1
WAIT TIME FOR IVS DEVICE (SECONDS), I, ?...10 =>
UNAVAILABLE IVS DEVICE STEP, N=NEXT or ?....N =>
DATA TO SPEAK or ?.......................... => PLTEADS1(52003,1)
FORMAT TO SPEAK DATA or ?.................DIG => NUM
AGENT AVAILABLE INTERRUPT: Y, N, or ?.......Y =>
STEP 3  : TYPE, RETURN=end or ?.............. => SDAT
IVS GROUP or ?............................... => 12
IVS PHRASE GROUP or ?........................ => 1
WAIT TIME FOR IVS DEVICE (SECONDS), I, ?...10 =>
UNAVAILABLE IVS DEVICE STEP, N=NEXT or ?....N =>
DATA TO SPEAK or ?.......................... => PLTEADS2(52003,1)
FORMAT TO SPEAK DATA or ?.................DIG => DIG
AGENT AVAILABLE INTERRUPT: Y, N, or ?.......Y =>
STEP 4  : TYPE, RETURN=end or ?.............. => SDAT
IVS GROUP or ?............................... => 12
IVS PHRASE GROUP or ?........................ => 1
WAIT TIME FOR IVS DEVICE (SECONDS), I, ?...10 =>
UNAVAILABLE IVS DEVICE STEP, N=NEXT or ?....N =>
DATA TO SPEAK or ?.......................... => PLTUSER1(52003,1)
FORMAT TO SPEAK DATA or ?.................DIG => NUM
AGENT AVAILABLE INTERRUPT: Y, N, or ?.......Y =>
STEP 5  : TYPE, RETURN=end or ?.............. => SDAT
IVS GROUP or ?............................... => 12
IVS PHRASE GROUP or ?........................ => 1
WAIT TIME FOR IVS DEVICE (SECONDS), I, ?...10 =>
UNAVAILABLE IVS DEVICE STEP, N=NEXT or ?....N =>
DATA TO SPEAK or ?.......................... => PLTUSER2(52003,1)
FORMAT TO SPEAK DATA or ?.................DIG => DIG
AGENT AVAILABLE INTERRUPT: Y, N, or ?.......Y =>
STEP 6  : TYPE, RETURN=end or ?.............. => SDAT
IVS GROUP or ?............................... => 12
IVS PHRASE GROUP or ?........................ => 1
WAIT TIME FOR IVS DEVICE (SECONDS), I, ?...10 =>
UNAVAILABLE IVS DEVICE STEP, N=NEXT or ?....N =>
DATA TO SPEAK or ?.......................... => PLTUSER1(52003,)
FORMAT TO SPEAK DATA or ?.................DIG => NUM
AGENT AVAILABLE INTERRUPT: Y, N, or ?.......Y =>
STEP 7  : TYPE, RETURN=end or ?.............. => SDAT
IVS GROUP or ?............................... => 12
IVS PHRASE GROUP or ?........................ => 1
```

```
        WAIT TIME FOR IVS DEVICE (SECONDS), I, ?...10 =>
        UNAVAILABLE IVS DEVICE STEP, N=NEXT or ?....N =>
        DATA TO SPEAK or ?.......................... => PLTUSER()
        FORMAT TO SPEAK DATA or ?.................DIG => NUM
        AGENT AVAILABLE INTERRUPT: Y, N, or ?.......Y =>
        STEP 8  : TYPE, RETURN=end or ?.............. =>
        MODIFY TYPE, RETURN=end, or ?............... =>


        *** VERIFY/DISPLAY ***


        *** CALL GUIDE 10      USER GROUP 1   CALL CENTER 1    01/12/05   11:15:45


        *** CALL GUIDE DEFINITIONS:


        *** CALL GUIDE STEPS:
        STEP  TYPE
        ----  -------------------------------------------------------------------------
        1     SPEAK IVS DATA
                  IVS GROUP....................12      PHRASE GROUP...................1
                  IVS WAIT TIME........10 SECONDS      IVS UNAVAILABLE STEP........NEXT
                  DATA...........CTGYAQT(52003,1)      FORMAT..................NUMERIC
                  AGENT INTERRUPT.............YES
        2     SPEAK IVS DATA
                  IVS GROUP....................12      PHRASE GROUP...................1
                  IVS WAIT TIME........10 SECONDS      IVS UNAVAILABLE STEP........NEXT
                  DATA..........PLTEADS1(52003,1)      FORMAT..................NUMERIC
                  AGENT INTERRUPT.............YES
        3     SPEAK IVS DATA
                  IVS GROUP....................12      PHRASE GROUP...................1
                  IVS WAIT TIME........10 SECONDS      IVS UNAVAILABLE STEP........NEXT
        RETURN CONTINUES DISPLAY..... =>
                  DATA..........PLTEADS2(52003,1)      FORMAT............NUMERIC DIGIT
                  AGENT INTERRUPT.............YES
        4     SPEAK IVS DATA
                  IVS GROUP....................12      PHRASE GROUP...................1
                  IVS WAIT TIME........10 SECONDS      IVS UNAVAILABLE STEP........NEXT
                  DATA..........PLTUSER1(52003,1)      FORMAT..................NUMERIC
                  AGENT INTERRUPT.............YES
        5     SPEAK IVS DATA
                  IVS GROUP....................12      PHRASE GROUP...................1
                  IVS WAIT TIME........10 SECONDS      IVS UNAVAILABLE STEP........NEXT
                  DATA..........PLTUSER2(52003,1)      FORMAT............NUMERIC DIGIT
                  AGENT INTERRUPT.............YES
        6     SPEAK IVS DATA
                  IVS GROUP....................12      PHRASE GROUP...................1
                  IVS WAIT TIME........10 SECONDS      IVS UNAVAILABLE STEP........NEXT
                  DATA...........PLTUSER1(52003,)      FORMAT..................NUMERIC
                  AGENT INTERRUPT.............YES
        7     SPEAK IVS DATA
                  IVS GROUP....................12      PHRASE GROUP...................5
                  IVS WAIT TIME........10 SECONDS      IVS UNAVAILABLE STEP........NEXT
                  DATA................PLTUSER1(,)      FORMAT..................NUMERIC
                  AGENT INTERRUPT.............YES
        8     LAST
        RETURN CONTINUES DISPLAY..... =>

        DOES UPDATE VERIFY ? => Y
        TABLE CHANGE PERFORMED



        *** CALL GUIDE 10    is Saved
```

Assign Values in an ACD Call Guide

The following call guide assigns the OAI Controlled Call Guide System Variable values to local variables.

Note

A Set (SET) call guide step initializes or changes a variable. A Set step can define a variable with either a single operand or the result of a simple mathematical operation involving two operands.

Call Guide

```
SELECT COMMAND => acdc
SELECT MODE:  PRINT, DISPLAY, UPDATE, TITLES  => u
UPDATE MODE: C-Create; M-Modify; D-Delete.... => c
SELECT SUBCOMMAND or ?.......................C =>
CALL GUIDE NUMBER, A, U or ?................. => 12
ENTER TITLE:....._____ =>
"USER GROUP NUMBER: (1-1000).................. => 1
*** Define Call Guide Parameters:
PARAMETER  1 TYPE: I, D, RETURN=end, or ?.... =>
STEP 1  : TYPE, RETURN=end or ?.............. =>
MODIFY TYPE, RETURN=end, or ?................ => iv
VARIABLE NAME or ?........................... => iv1
L=LOCAL VARIABLE, P=PARAMETER or ?..........L =>
MODIFY TYPE, RETURN=end, or ?................ => dv
VARIABLE NAME or ?........................... => dv1
L=LOCAL VARIABLE, P=PARAMETER or ?..........L =>
MODIFY TYPE, RETURN=end, or ?................ => i
STEP NUMBER: or ?............................ => 1
STEP 1  : TYPE, RETURN=end or ?.............. => set

ENTER EQUATION or ? => iv1=ctgyaqt(52003,1)
STEP 2  : TYPE, RETURN=end or ?.............. => set
ENTER EQUATION or ? => iv1=plteads1(52003,1)
STEP 3  : TYPE, RETURN=end or ?.............. => set
ENTER EQUATION or ? => dv1=plteads2(52003,1)
STEP 4  : TYPE, RETURN=end or ?.............. => set
ENTER EQUATION or ? => iv1=pltuser1(52003,1)
STEP 5  : TYPE, RETURN=end or ?.............. => set
ENTER EQUATION or ? => dv1=pltuser2(52003,1)
STEP 6  : TYPE, RETURN=end or ?.............. => set
ENTER EQUATION or ? => iv1=pltuser1(52003)
STEP 7  : TYPE, RETURN=end or ?.............. => set
ENTER EQUATION or ? => iv1=pltuser1()
STEP 8  : TYPE, RETURN=end or ?.............. =>
MODIFY TYPE, RETURN=end, or ?................ =>

*** VERIFY/DISPLAY ***

*** CALL GUIDE 12      USER GROUP 1    CALL CENTER 1    11/03/04    09:08:21
*** CALL GUIDE DEFINITIONS:
VARIABLE    TYPE
--------    ------------
DV1         DIGIT STRING
IV1         INTEGER
```

```
*** CALL GUIDE STEPS:


STEP   TYPE
----   --------------------------------------------------------------------------


1     SET
          EQUATION......................................IV1 = CTGYAQT(52003,1)
2     SET
          EQUATION......................................IV1 = PLTEADS1(52003,1)
3     SET
          EQUATION......................................DV1 = PLTEADS2(52003,1)
4     SET
          EQUATION......................................IV1 = PLTUSER1(52003,1)
5     SET
          EQUATION......................................DV1 = PLTUSER2(52003,1)
6     SET
          EQUATION......................................IV1 = PLTUSER1(52003,)
7     SET
          EQUATION.......IV1 = PLTUSER1(,)
8      LAST
```

```
DOES UPDATE VERIFY ? => y
TABLE CHANGE PERFORMED


*** CALL GUIDE 12    is Saved


CALL GUIDE NUMBER, A, U or ?................. =>@
```

Centergy Reporting 1.7 Database for AQT

The following fields were added to the tbl_SystemConfig table in Centergy Reporting 1.7 for the AQT to PointSpan feature.

Column	Type	Size	Description
AQTOAISupport (Can be Null)	int	4	1 = Yes. Supports sending the average queue time to the PointSpan switch using OAI.
AQTOAIThrottleTime (Can be Null)	int	4	Prevents Centergy Reporting from flooding the PointSpan switch with updates. The throttle time spaces the updates per call type so that each update is at least 'x' seconds apart.
AQTOAIKeepAliveTime (Can be Null)	int	4	The keep-alive timer guarantees Centergy Reporting is making an update once every 'x' seconds. If the PointSpan switch does not receive at least one update within 'x' seconds, the switch will mark all of the data as "stale". Keep Alive Time should be much shorter than the AQTOAIStaleTime so that there is no chance of data being marked stale unless Centergy Reporting is not functioning.
AQTOAIStaleTime (Can be Null)	int	4	The time when the switch will mark the data as "bad."

Index

Index

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