

Lucent Technologies
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INTUITY CONVERSANT System

Customer Assist Care Center

Version 6.0

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Contents

About This Book	xix
■ Purpose	xix
■ Intended Audiences	xix
■ Use	xix
■ How This Book Is Organized	xx
■ Conventions	xxi
■ Assumptions	xxi
■ Trademarks	xxi
■ Related Resources	xxii
UnixWare Operating System and CONVERSANT Documentation	xxii
DEFINITY G3 or ECS R5 Documentation	xxii
■ How to Make Comments	xxiii

1	Customer Assist Care Center and Its Role in Call Control	1-1
■	Overview of Customer Assist Care Center Software	1-2
■	Care Center Terms	1-3
■	Supported Hardware/Software	1-4
■	Care Center Package Dependencies	1-5
■	DEFINITY and CONVERSANT Integration	1-6
	INTUITY CONVERSANT Vectors	1-6
	DEFINITY Vectors	1-6
	Their Partnership	1-7
■	Care Center Product Highlights	1-8
■	Overview of Care Center Platform Management Package	1-8
	Hard and Dynamic Port Allocation and the Converse Vector Step	1-9

Contents

■ Overview of Care Center Callback	
Messaging	1-11
MSG_DROP	1-11
Passed Parameters	1-12
Jump-To Vector	1-12
Schedule Callback Option — Callers	1-13
TRANSCRIBE (TRANSCRIBE)	1-16
Schedule Callback Option — Agents	1-19
Forward Message and Prepend Options	1-19
Using the Agent Access Feature	1-22
Special Instructions for Line-Side T1/E1 Users	1-22
■ Overview of Care Center Custom Call	
Routing	1-23
LOOK_UP	1-23
Routing Calls	1-23
Populating an Agent's Telephone Display	1-24
■ Overview of Care Center Speech	
Recognition	1-25
GET_SPCH	1-25
In Callback Messaging	1-25
■ Overview of Care Center Dial Pulse	
Recognition	1-26
GET_DIALP	1-26
In Callback Messaging	1-26

2	Quick Start and Navigating Customer Assist Care Center	2-1
■	Getting Started	2-1
	Setting up your system	2-1
	Logging In	2-3
	Status Line	2-3
■	Navigating the System	2-6
	Customer Assist Care Center Main Menu	2-6
■	Call Vector Configuration	2-7
	Create New Vector	2-8

Contents

Edit Vector	2-9
Delete Vector	2-10
Copy Vector	2-11
Select Vector Template	2-12
Audit Vector Database	2-13
Place New Vectors in Service	2-14
■ System Administration	2-15
Callback Messaging Administration	2-16
CONVERSANT Administration	2-17
Custom Call Routing Administration	2-18
Report Generation	2-19
Report Scheduling	2-20
Speech Administration	2-21
System Backup/Restore	2-22
Variable Administration	2-23
■ System Monitor	2-24

3	Vector Actions	3-1
■	CONVERSANT Vector Actions	3-1
	ADA_CALC Action	3-2
	ANNOUNCE Action	3-4
	CHAN_ASN Action	3-6
	CHG_LANG Action	3-7
	CONVERSE Action	3-8
	DATA_RTN Action	3-10
	DYNAMIC Action	3-12
	DYN_ANNOU Action	3-13
	EWT Action	3-14
	EXECUTE Action	3-17
	GET_DIALP Action	3-18
	GET_DIGT Action	3-20
	GET_SPCH Action	3-21
	GLOBAL Action	3-24

Contents

GOTO Action	3-24
HANG_ACT Action	3-26
LOOK_UP Action	3-28
MENU Action	3-29
MSG_DROP Action	3-33
OFF_HOOK Action	3-35
QUIT Action	3-35
REPORT Action	3-36
SCHEDULE Action	3-37
SET Action	3-40
SPCH_ADMN Action	3-41
SPEAK_NUM Action	3-43
SWITCH Action	3-44
TRANSFER Action	3-45
TRANSRIBE (TRANSCRIBE) Action	3-47
■ Special Instructions for Line-Side T1/E1 Users	3-48

4	Administration	4-1
■	Care Center Main Menu	4-3
■	Call Vector Configuration	4-5
	Creating a New CONVERSANT Vector	4-6
	Editing a CONVERSANT Vector	4-7
	Inserting an Action Step into a CONVERSANT Vector	4-9
	Removing an Action Step from a CONVERSANT Vector	4-10
	Deleting a CONVERSANT Vector	4-11
	Copying a CONVERSANT Vector	4-11
	Selecting a Vector Template	4-12
	To Use a Template:	4-13
	Using the Setup Template to Assign CONVERSANT Vectors to Channels	4-13

Contents

To assign CONVERSANT vectors to channels:	4-14
Using the Dynamic Port Allocation Template	4-16
Using the Estimated Wait Time Template (Beginning with DEFINITY G3V4)	4-19
Using the Anticipated Delay Announcement Template (before DEFINITY G3V4)	4-23
Using the Announce Queue Position Template	4-27
Using the Custom Call Routing Template	4-31
Auditing the Vector Database	4-36
Placing New CONVERSANT Vectors in Service	4-38
■ System Administration	4-41
Speech Administration	4-42
Administration of Phrases for Vectors, Mailboxes, and Standard Speech	4-42
Adding a New Phrase	4-46
Copying a Phrase	4-50
Editing a Phrase	4-51
Removing a Phrase	4-51
Password Administration	4-52
Generate Phrase List	4-53
Changing the Base Language	4-54
Variable Administration	4-55
Adding a Variable	4-56
Removing a Variable	4-56
Editing a Variable	4-57
Callback Messaging Administration	4-57
Mailbox Administration	4-58
Creating a New Mailbox	4-59
Copying a Mailbox	4-73
Removing a Mailbox	4-73
Editing the AUDIT Mailbox	4-74
Editing a Mailbox	4-74
Mailbox Global Settings	4-75
Agent Callback Hours	4-79
Custom Call Routing Administration	4-80
Import/Export Data from/to Diskette	4-81
Routing Table Administration	4-83
Adding a Table	4-84
Deleting a Table	4-84
Record Administration	4-85
Editing or Deleting a Record	4-85

Contents

Adding a Record	4-86
CONVERSANT Administration	4-88
■ Report Generation	4-89
Call Detail Report	4-90
Vector Usage Report	4-92
Event Count Report	4-93
Event Detail Report	4-94
Traffic Report	4-96
Vector Profile Report	4-97
Vector Map Report	4-99
Routing Table Report	4-101
Message Count Report	4-102
Message Log Report	4-103
Agent Callback Count Report	4-104
Transcription Detail Report	4-106
Transcription Detail Report Form Fields	4-106
Record Information	4-109
Speech Space Available Test	4-111
Message Download Report	4-111
■ Report Scheduling	4-112
■ System Backup/Restore	4-115
Restore Vector Database	4-115
Restore Previous Runtime Database	4-116
Restore Database from Current Runtime	4-116
Restore Database from Diskette	4-117
Back Up Vector Database to Diskette	4-117
Backup/Restore Speech	4-119
Back Up/Restore Mailbox Configuration	4-119
Format Diskette	4-120
Restore Data from Previous Version of Care Center	4-121
Restoring the Development Vector Database from a Previous Version of Care Center	4-121
Restoring Speech from a Previous Version of Care Center	4-121

Contents

Restoring Mailbox Configuration from a Previous Version of Care Center	4-122

5	Designing a World-Class Call Center	5-1
■	Strategies for Building a World-Class Call Center	5-3
	How Do I Want to Interact With My Customer?	5-3
	Company Issues	5-3
	Agent and Resources Issues	5-4
	Call-Center Issues	5-4
	Technology Issues	5-4
	Learning from the Past	5-4
	Balancing Service and Resources	5-5
	Building Your World-Class Call Center	5-5
	Testing and Customer Feedback	5-6
	Maintenance	5-7
■	Potential Customer Assist Care Center Applications	5-9
	Auto Attendants	5-9
	Bulletin Boards	5-9
	Caller-On-Hold Systems	5-9
	Standard/Dynamic Announcements	5-9
	Delay Announcements and Delay Routing	5-10
	Speech Recognition	5-10
	Message Delivery and Callback Messaging	5-10
	Dynamic Port Allocation	5-11
	Multilingual Systems	5-11
	Other Applications	5-12
	System Administration: Actions/Speech/Reports	5-12
■	Introduction to the Sample Applications	5-13
	Organization of the Sample Applications	5-14
	Callflow Diagrams	5-14
	DEFINITY Vectors	5-14
	CONVERSANT Vectors	5-14
■	Sample Application #1: The Setup Vector	5-15
	Business Situation	5-15
	Procedure	5-15

Contents

Assigning Care Center to Channels on the CONVERSANT	5-16
Viewing Channels Assigned to Care Center	5-18
Building the Setup Vector	5-19
Resetting the Current Setup Vector to the Template's Defaults	5-19
Modifying the Automatically Loaded Setup Vector:	5-20
Placing Vectors in Service	5-23
■ Sample Application #2: Standard Announcement	5-25
Business Situation	5-25
Callflow Diagram	5-26
ECS R5/DEFINITY Vector	5-27
CONVERSANT Speech Administration	5-28
CONVERSANT Vector	5-33
■ Sample Application #3: Dynamic Announcement	5-37
Business Situation	5-37
Callflow Diagrams	5-37
ECS R5/DEFINITY Vectors	5-40
Customer Service Vector	5-41
Technical Support Vector	5-41
CONVERSANT Speech Administration	5-41
CONVERSANT Vector	5-42
Step Descriptions	5-43
■ Sample Application #4: Automated Attendants	5-49
Business Situation	5-49
Callflow Diagrams	5-49
ECS R5/DEFINITY Vector	5-53
CONVERSANT Speech Administration	5-53
CONVERSANT Vectors	5-53
First Vector — RC-AutoAttend	5-54
Step Descriptions	5-54
Second Vector — RC-AA-TT Menu	5-55
Step Descriptions	5-56
Third Vector — RC-AA-Rotary	5-60
Step Descriptions	5-60

Contents

Fourth Vector — Quit Vector	5-66
Step Descriptions	5-66
■ Sample Application #5: Bulletin Boards	5-67
Business Situation	5-67
Callflow Diagrams	5-67
ECS R5/DEFINITY Vector	5-80
CONVERSANT Speech Administration	5-80
CONVERSANT Vectors	5-81
First Vector — RC-BB-Main Vec	5-82
Step Descriptions	5-83
Second Vector — RC-BB-TT Menu	5-84
Step Descriptions	5-84
Third Vector — RC-BB-SR Main	5-87
Step Descriptions	5-87
Fourth Vector — RC-BB-InfoMenu	5-90
Step Descriptions	5-90
Fifth Vector — RC-BB-UpgradTT	5-93
Step Descriptions	5-93
Sixth Vector — RC-BB-Return?	5-96
Step Descriptions	5-96
Seventh Vector — RC-BB-SR Info	5-98
Step Descriptions	5-98
Eighth Vector — RC-BB-SR Upgra	5-101
Step Descriptions	5-101
Ninth Vector — RC-BB-SR Retur	5-104
Step Descriptions	5-104
Tenth Vector — RC-BB-Win95Men	5-107
Step Descriptions	5-107
Eleventh Vector — RC-BB-SR Win95	5-110
Step Descriptions	5-110
Twelfth Vector — Quit	5-113
Step Descriptions	5-113
■ Sample Application #6: Announce Queue Position	5-115
Business Situation	5-115
Callflow Diagram	5-115

Contents

ECS R5/DEFINITY Vector	5-117
CONVERSANT Speech Administration	5-117
CONVERSANT Vector	5-118
Step Descriptions	5-118
■ Sample Application #7: Estimated Wait Time	5-121
Business Situation	5-121
Callflow Diagram	5-122
ECS R5/DEFINITY Vector	5-124
CONVERSANT Speech Administration	5-124
CONVERSANT Vector	5-125
Step Descriptions	5-125
■ Sample Application #8: Custom Call Routing	5-129
Business Situation	5-129
Callflow Diagram	5-129
ECS R5/DEFINITY Vector	5-131
Custom Call Routing Table	5-131
Setting Up the Routing Table	5-131
Populating the Routing Table	5-132
Importing Data into the Table	5-132
Entering Data into the Table Directly	5-133
CONVERSANT Speech Administration	5-135
CONVERSANT Vector	5-136
Step Descriptions	5-136
■ Sample Application #9: Estimated Wait Time Routing	5-139
Business Situation	5-139
Callflow Diagram	5-139
ECS R5/DEFINITY Vector	5-142
CONVERSANT Speech Administration	5-142
CONVERSANT Vectors	5-142
First Vector — RC-EWT Routing	5-143
Step Descriptions	5-143
Second Vector — RC-Msg Drop	5-145
Step Descriptions	5-145
Third Vector — RC-Return ACD	5-147
Step Descriptions	5-147

Contents

■ Sample Application #10: Callback Messaging	5-149
Business Situation	5-149
Callflow Diagram	5-149
ECS R5/DEFINITY Vector	5-150
Callback Messaging Administration	5-150
Agent Callback Hours Setup	5-150
Mailbox Global Settings	5-151
New Mailbox Setup	5-152
CONVERSANT Vectors	5-154
■ Sample Application #11: Bilingual	
Dynamic Announcements and Routing	5-155
Business Situation	5-155
Callflow Diagram	5-155
ECS R5/DEFINITY Vector	5-159
Callback Messaging Administration	5-159
CONVERSANT Speech Administration	5-159
CONVERSANT Vectors	5-160
First Vector — RC-BiLing Open	5-160
Step Descriptions	5-161
Second Vector — RC-BiLing EWT	5-163
Step Descriptions	5-163
Third Vector — RC-BiLing Menu	5-164
Step Descriptions	5-165
Fourth Vector — RC-Msg Drop	5-166
Step Descriptions	5-166
Fifth Vector — RC-Return ACD	5-168
Step Descriptions	5-168
■ Sample Application #12: Dynamic Port	
Allocation and Dynamic Allocation of Applications	5-169
Business Situation	5-169
ECS R5/DEFINITY Vector	5-169
CONVERSANT Vector	5-170
Step Descriptions	5-170
Changing the Setup Vector	5-173
■ Sample Application #13: Scheduling	
Events in a Call Center	5-175

Contents

Business Situation	5-175
ECS R5/DEFINITY Vector	5-175
CONVERSANT Vectors	5-175
First Vector — RC-Main DPA	5-176
Step Descriptions	5-176
Second Vector — RC-Holiday	5-178
Step Descriptions	5-178
Third Vector — RC-Weekend	5-179
Step Descriptions	5-179
Changing the Setup Vector	5-180
■ Sample Application #14: Reporting and Hang Up Actions	5-181
Business Situation	5-181
ECS R5/DEFINITY Vector	5-181
CONVERSANT Vectors	5-181
First Vector — RC-Main DPA	5-182
Step Descriptions	5-182
Second Vector — RC-Hang Up	5-185
Step Descriptions	5-185
■ Sample Application #15: Speech Administration and Transcribing Messages	5-186
Business Situation	5-186
ECS R5/DEFINITY Vector	5-186
CONVERSANT Vectors	5-186
First Vector — RC-SpchAdmn	5-187
Step Descriptions	5-187
Second Vector — RC-Transcript	5-188
Step Descriptions	5-189

6	Troubleshooting	6-1
■	Voice System Functionality	6-1
■	DEFINITY ECS R5 Switch and Its Vector Functionality	6-2
■	Customer Assist Care Center Functionality	6-3

Contents

Platform Management	6-4
Callback Messaging	6-10
Custom Call Routing	6-15
System Administration	6-16
CONVERSANT Error Log Messages	6-18
SOURCE: VCT_RPT	6-18
SOURCE: VECTOR	6-21
SOURCE: PHR_ADM	6-25
SOURCE: MSG_DROP	6-27
SOURCE: CALLBACK	6-30
■ Other Problems	6-41

7	Installation and Removal	7-1
■	Overview of Installation and Removal	7-1
■	Installing Platform Administration	7-2
■	Installing Platform Language and Runtime (US English)	7-4
■	Callback Messaging Installation (Optional)	7-5
■	Callback Messaging Language and Runtime (US English) (Optional)	7-6
■	Installing Custom Call Routing (Optional)	7-6
■	Dial Pulse Recognition (Optional)	7-6
■	Speech Recognition (Optional)	7-7
■	Removing the Customer Assist Care Center Software	7-8
	Removing Package	7-8

A	Hard-Drive Space Requirements	A-1
■	Overview	A-1
■	Amount of Partition Space	A-1

Contents

■ Customer Assist Care Center Platform Management Package	A-2
Hard Disk Drive Space Requirements	A-2
Application Software	A-2
Call Logs	A-2
Call-Handling Data in ORACLE	A-3
Prompts Speech	A-3
Memory Requirements	A-4
UNIX Kernel Parameters	A-4
■ Care Center Custom Call Routing	A-4
Hard Disk Drive Space Requirements	A-4
Application Software	A-4
Information in ORACLE Database Tables	A-4
■ Care Center Callback Messaging	A-5
Hard Disk Drive Space Requirements	A-5
Application Software	A-5
Messages in ORACLE Database Tables	A-5
Prompts Speech	A-6
■ Speech Messages	A-7
■ Care Center Speech Recognition	A-7
Hard Disk Drive Space Requirements	A-7
Application Software	A-7
■ Care Center Dial Pulse Recognition	A-8
Hard Disk Drive Requirements	A-8
Application Software	A-8

B	Port Sizing Guidelines	B-1
■	General Considerations	B-1
■	Standard Announcement Guidelines	B-1
■	Dynamic Port Allocation	B-2
	Callback Messaging	B-2
	Custom Call Routing	B-2
■	Port Sizing Worksheet	B-3

Contents

C	Maximum Values in Care Center Packages	C-1
	■ Maximum Values	C-1

D	Reentering Customer Assist Care Center	D-1
	■ Reentering Customer Assist Care Center after Executing a Script Builder Application	D-1
	Valid Arguments	D-1
	Example	D-2
	STEP 1: Set Up the EXECUTE Action to Invoke a Script Builder Application	D-2
	STEP 2: Modify a Script Builder Application to Accept Arguments from Customer Assist Care Center	D-3
	STEP 3: Modify the Script Builder Application to Execute Customer Assist Care Center	D-4
	■ Reentering Customer Assist Care Center After Returning Data to the DEFINITY	D-6
	Valid Arguments	D-6
	Example	D-6
	Step 1: Customer Assist Care Center Assigns a Caller Number (%caller_num) During the First Appearance of a Call to the CONVERSANT.	D-6
	Step 2: Complete your CONVERSANT Vector Series with a Data Return to the DEFINITY Vector	D-7
	Step 3: Append your DEFINITY Vector to Collect the Data Returned from the CONVERSANT	D-7
	Step 4: Create a CONVERSANT Vector that Accepts VDN from the DEFINITY	D-8
	Step 5: Create a CONVERSANT Vector that Accepts Caller Number as an Argument	D-8

Contents

E	Mailbox and Speech Conversion Utility	E-1
	■ Overview	E-1
	Supported Hardware/Software	E-3
	■ Installing the Utility	E-4
	■ Using the Utility	E-6
	To Back Up Mailboxes	E-8
	To Back Up Speech	E-9
	■ Removing the Utility	E-10

ABB	Abbreviations	ABB-1

GL	Glossary	GL-1

IN	Index	IN-1

About This Book

Purpose

This book describes powerful automated call-routing, announcement, storage, message-retrieval, and callback packages included in Customer Assist Care Center, or Care Center for short. This book:

- Tells installers how to load its five software packages on an INTUITY CONVERSANT System
- Gives administrators the basic steps to build pathways, or “vectors”, for incoming calls
- Shows administrators how to create site-specific applications
- Tells administrators how to generate reports and how to troubleshoot problems

Intended Audiences

This book is written for call-center agents, technicians, and system administrators responsible for using, installing, and maintaining Customer Assist Care Center.

Use

One good way to use the book is to start with the general overview in Chapter 1. This will give you a feel for the system and suggest how you can shape it to meet your needs. Next read and study “Setting up your system” on page 2-1 to follow

step-by-step instructions for implementing your new system. Then you can go over the sample applications to get an idea of how call-handling instructions, or CONVERSANT vectors, work to direct incoming calls.

It is important that you read the Chapter 2, "Quick Start and Navigating Customer Assist Care Center" before going on to the task of building your own applications using Chapter 4, "Administration" and Chapter 5, "Designing a World-Class Call Center" to understand how actions and variables work within the sample applications.

How This Book Is Organized

- Chapter 1, "Customer Assist Care Center and Its Role in Call Control", provides an overview of the product and its packages.
- Chapter 2, "Quick Start and Navigating Customer Assist Care Center", provides a checklist, with references, for setting up your system, and then shows you how to navigate through Care Center screens and gives a brief overview about what each screen offers.
- Chapter 3, "Vector Actions", explains the major tools, called actions, that work in Care Center.
- Chapter 4, "Administration", serves as a reference guide for setting up your Care Center.
- Chapter 5, "Designing a World-Class Call Center", offers step-by-step sample applications to help you set up your call center and customize it.
- Chapter 6, "Troubleshooting", provides suggestions and guidance to fixing problems with your system.
- Chapter 7, "Installation and Removal", walks you through installing and removing Care Center.
- Chapter A, "Hard-Drive Space Requirements", lists system requirements.
- Chapter B, "Port Sizing Guidelines", offers suggestions about planning for and setting up ports.
- Chapter C, "Maximum Values in Care Center Packages", serves as a reference listing maximum values for input in Care Center.
- Chapter D, "Reentering Customer Assist Care Center", explains how to enter Care Center from Script Builder or how to enter after returning data to the DEFINITY switch.
- Chapter E, "Mailbox and Speech Conversion Utility", shows you how to update speech and mailboxes from earlier versions of the Care Center to the most recent version.

Conventions

Keyboard keys are in capital letters, and are enclosed in boxes with rounded corners, like this:

Press **ENTER**

Function keys are in capital letters, followed by the function key number enclosed in square boxes, like this:

Press INSERT **F2**

CONVERSANT vector names are underlined. For example:

ADA start

Variables are in italic letters. For example:

%vdn

Words that you type are in bold letters. For example:

ccc

Words that appear on your monitor's screen are in this typeface:

At the prompt, type your login.

Assumptions

This book is written with the assumption that you have an INTUITY CONVERSANT system Version 6.0 running under the UnixWare[®] operating system and that your hardware consists of at least one MAP/40 or MAP/100 hardware platform and a DEFINITY G3 switch (Version 2 to 4) or a DEFINITY Enterprise Communications Server (ECS) Release 5, referred to as DEFINITY ECS R5.

It is also assumed that you know at least a little about the DEFINITY Call Vectoring, Expert Agent Selection (EAS), and Call Prompting features.

Trademarks

CONVERSANT[®] is a registered trademark of Lucent Technologies.

DEFINITY[®] is a registered trademark of Lucent Technologies in the United States and throughout the world.

INTUITY[™] is a trademark of Lucent Technologies.

UnixWare operating system® is a registered trademark of Novell, Inc.

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FastCall is a registered trademark of Aurora Systems, Inc.

Related Resources

UnixWare Operating System and CONVERSANT Documentation

- *Novell UnixWare Documentation Set*, 585-350-908
- *INTUITY CONVERSANT System Version 6.0 Upgrade*, 585-310-183
- *INTUITY CONVERSANT System Version 6.0 Administration*, 585-310-591
- *INTUITY CONVERSANT System Version 6.0 MAP/40 Maintenance*, 585-310-181

or

INTUITY CONVERSANT System Version 6.0 MAP/100 Maintenance, 585-310-179

DEFINITY G3 or ECS R5 Documentation

Some knowledge of DEFINITY G3 Call Vectoring, Expert Agent Selection (EAS) and Call Prompting is necessary to make full use of Customer Assist Care Center. The most helpful document will probably be the Call Vectoring/EAS Guide. If you are not familiar with call vectoring, review that book, especially its tutorial sections.

- *Lucent DEFINITY Communications System Generic 3 Call Vectoring/EAS Guide*, 555-230-520

or

Lucent DEFINITY ECS R5 Call Vectoring/EAS Guide, 555-230-521

- *Lucent DEFINITY Communications System Generic 3 Feature Description*, 555-230-204

or

Lucent DEFINITY ECS R5 Feature Description, 555-230-301

- *Lucent DEFINITY Communications System Generic 3i Implementation*, 555-230-650,

Lucent DEFINITY Communications System Generic 3r Implementation, 555-230-651,

Lucent DEFINITY Communications System Generic 3i-Global Implementation, 555-230-652,

Lucent DEFINITY Communications System Generic 3 V2 and V3 Implementation, 555-230-653,

Lucent DEFINITY Communications System Generic 3 V4 Implementation, 555-230-655,

or

Lucent DEFINITY ECS R5 Implementation, 555-230-302

How to Make Comments

Despite our best efforts, errors sometimes find their way into our books. We would be grateful if you would tell us about these (and how we could make the book better in general) on the enclosed card at the front of this guide.

If the reader comment card has been removed from this book, please send your comments to:

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Customer Assist Care Center and Its Role in Call Control

1

This chapter describes the main benefits of combining a DEFINITY G3 or ECS R5 switch, a CONVERSANT system, and the Customer Assist Care Center, Version 6.0 software. This Care Center documentation stresses the value that the CONVERSANT and Care Center software adds to the DEFINITY G3 or ECS R5 switch.

Overview of Customer Assist Care Center Software

Call centers are the newest development on the edge of call information management, and today they are lending even more capabilities to a switching system. Customer Assist Care Center is a leading call-center queue- and resource- management tool and provides high flexibility and ease in managing call flow and disseminating information.

A stand-alone DEFINITY G3 or ECS R5 switch provides the ability to queue the call, collect the calling number, and estimate a wait time; combined with Customer Assist Care Center on the CONVERSANT, capabilities are significantly enhanced. Now the wait time can be rounded up or down to the nearest minute and a factoring percentage can be used to increase or decrease the value of the wait time. This information helps callers make informed decisions as to what they want to do next. For instance, callers can reach dynamic, self-service options while either in or out of queue, such as:

- Auto attendants
- Bulletin boards, or
- Informational announcements

They can also leave a message in a mailbox or be routed to another area for additional information.

And, Care Center offers you additional benefits. While it offers your customers a variety of services, it enhances the management structure of your organization and its communication. The Care Center gives you an alternative to hiring additional people to answer calls by providing "virtual" agents to manage call flow. In addition, it helps manage busy peak times and provides automated services such as bulletin boards and delay announcements. All of these benefits have a positive effect on key call center measurements like abandon rates, as well as on call center supervisors by requiring fewer actual agents.

Customer Assist Care Center fills the main role of a call-management resource tool by helping allocate resources to the busy call center. In addition, it provides customers with added benefits of more effective and efficient customer service by tailoring it to meet their needs.

Care Center Terms

The following terms appear often in this book. Becoming familiar with them will offer a better understand how parts of the product work together.

- Application - a collection of vectors, mailboxes, routing tables, switch configuration, and Script Builder programs that provide a service to users, for example bulletin boards or auto attendants.
- CONVERSANT vector - a series of actions on the CONVERSANT to perform one or more tasks.
- DEFINITY vector - a series of steps on the DEFINITY to perform one or more tasks.
- Action - a component of a vector in the Platform Management Package that contains specific configurable settings that control the outcome of a call.
- Mailbox - a folder in which messages left by callers are inserted so they can be transcribed by agents.
- Routing table - a table of records used to provide information needed to route callers to their destination.
- Product - a marketing term for a collection of packages designed to provide certain services.
- Package - one or more diskettes or tapes that install software onto a computer, such as Customer Assist Care Center Platform Runtime and Language (US English).
- Feature - a capability of a product to do one or many tasks, such as transfer calls, play standard announcements, or collect speech recognition input.
- CONVERSANT application - a Script Builder, TSM, or IRAPI application that runs on the CONVERSANT, for example Customer Assist Care Center. This term usually refers to Script Builder applications.
- Program - instructions given to a computer to perform certain tasks.
- Software - the detailed instructions to operate a computer. Software typically consists of multiple programs.
- Operating system - a software program which manages the basic operations of a computer system, such as UNIX or MS-DOS.
- System - an organized assembly of hardware, software, procedures, and other facilities designed to perform a specific function or set of functions. Different systems may overlap one another, such as the CONVERSANT system which is built on top of the UNIX operating system. A system can also include multiple products, such as the Customer Assist Care Center, which is part of the CONVERSANT system.

Supported Hardware/Software

Customer Assist Care Center Version 6.0 applications are supported on these configurations:

Switch Release:

- DEFINITY G3V1¹ with ACD (Automatic Call Distribution)
- DEFINITY G3V2 to V4 with Call Center Deluxe software
- DEFINITY ECS R5 Call with Center Deluxe software

CONVERSANT System Hardware:

- MAP/40 (up to 96 incoming ports) or MAP/100 (up to 96 incoming ports)



NOTE:

A CONVERSANT with a 25-MHz 486 processor can support 48 ports. A CONVERSANT with a 50-MHz 486 processor can support 72 ports. A CONVERSANT with a 120-MHz Pentium processor can support 96.

- IVP6/IVC6 analog or line-side T1/E1² interface to G3 or ECS R5
- SP or SSP card if using T1/E1
- Color monitor

CONVERSANT System Software:

- CONVERSANT 6.0 software
- Script Builder 6.0



NOTE:

Script Builder is not required to run Customer Assist Care Center applications, but is supported for customers wanting to develop their own interactive voice-response applications.

Peripherals:

- Lucent Technologies printer
- Lucent Technologies modem

-
1. A DEFINITY G3V2 (or a later) switch is required for all applications that use the Converse Call Vectoring step enabling the switch to communicate with the CONVERSANT system. G3V1 does not support the use of CONVERSE and DATA_RTN actions.
 2. Standard announcements are not available over digital (line-side T1/E1) lines until G3V4.

Care Center Package Dependencies

The packages in Care Center need to be installed in a certain order because the packages have dependencies among them. The general order of installation is the CONVERSANT packages followed by the Care Center Platform Management packages. These packages are required by all the other Care Center packages. The optional Care Center packages can then be installed.

The Care Center packages are grouped into the following groups:

- Platform Management (12 packages)
 - Platform Administration
 - Platform Language and Runtime Australian English
 - Platform Language and Runtime Brazilian Portuguese
 - Platform Language and Runtime Canadian French
 - Platform Language and Runtime Colombian Spanish
 - Platform Language and Runtime Dutch
 - Platform Language and Runtime French
 - Platform Language and Runtime German
 - Platform Language and Runtime Japanese
 - Platform Language and Runtime Standard Spanish
 - Platform Language and Runtime UK English
 - Platform Language and Runtime US English
- Custom Call Routing (1 package)
- Speech Recognition (1 package)
- Dial Pulse Recognition (1 package)
- Callback Messaging (12 packages)
 - Callback Messaging Administration
 - Callback Messaging Language and Runtime Australian English
 - Callback Messaging Language and Runtime Brazilian Portuguese
 - Callback Messaging Language and Runtime Canadian French
 - Callback Messaging Language and Runtime Colombian Spanish
 - Callback Messaging Language and Runtime Dutch
 - Callback Messaging Language and Runtime French
 - Callback Messaging Language and Runtime German
 - Callback Messaging Language and Runtime Japanese
 - Callback Messaging Language and Runtime Standard Spanish

- Callback Messaging Language and Runtime UK English
- Callback Messaging Language and Runtime US English

Install only the Language and Runtime packages for the language you need. Up to four Language and Runtime packages and up to four Callback Messaging Language and Runtime Packages can be installed at the same time. Also, up to two languages can be speech recognition enabled at one time with the Care Center Speech Recognition package.

DEFINITY and CONVERSANT

Integration

Customer Assist Care Center Version 6.0 is designed to work with Lucent Technologies' DEFINITY G3 or DEFINITY ECS R5 switch on INTUITY CONVERSANT System V6.0. Vectors on the DEFINITY G3 or ECS R5 switch and the CONVERSANT work together to send information from an incoming call to a Customer Assist Care Center waiting to receive calls.

INTUITY CONVERSANT Vectors

Like its counterpart on the DEFINITY G3 or ECS R5 switch, a CONVERSANT vector is a series of commands or "actions" that dictates how the system treats an incoming call and what speech the caller hears. You may define as many as 256 CONVERSANT vectors. Each can contain up to 14 individual actions.

Because of the multitasking power of the UnixWare operating system, Customer Assist Care Center can serve many callers at once. Plus, you can define or edit CONVERSANT vectors while others are active without interrupting the system's operation. This flexible design also lets you launch any certified CONVERSANT application from the platform package.

DEFINITY Vectors

DEFINITY vectors reside on the DEFINITY G3 or ECS R5 switch and are similar in concept to CONVERSANT vectors. They consist of commands linked to place a call in queue, play a recorded message to the caller, etc. You build and launch them in much the same way as CONVERSANT vectors by using on-screen menus to enter the actions you want.

See Chapters 1 through 4 of *Lucent DEFINITY Communications System Call Vectoring/EAS Guide*, 585-230-520 (G3) or -521 (ECS R5), for a full treatment of basic DEFINITY Call Vectoring.

The DEFINITY vector has precedence over its junior partner, the CONVERSANT vector. It receives all incoming calls and governs their movement. It dictates the playing of most forced announcements. It places calls in queue according to

their priority level and arrival time. If a caller is in queue, it stops a message played by a CONVERSANT vector in order to deliver the caller to a live agent.

Their Partnership

Figure 1-1 shows a typical joint effort between two vectors.

1. A call arrives and is answered by a DEFINITY vector, which queues the call to a main split, or group, of agents.
 2. If no agent is available, the DEFINITY vector passes the call to a CONVERSANT vector, which plays a standard announcement, such as a greeting and the request to wait until an agent can answer the call.
-

Figure 1-1. A Working Partnership

3. When the announcement ends, the QUIT action sends the call back to the DEFINITY vector, which looks again (as, in fact, it does periodically as long as the call is in queue) to see whether an agent is available.
4. If not, step 3 plays music for 30 seconds.
5. Then, if every agent is still busy, step 4 asks the caller to press a touch-tone number to hear, for instance, about a recent product update.
6. Callers who do not press a number return to step 2.
7. If the caller presses a number, the Converse vector step passes the call back to the CONVERSANT vector, which plays a dynamic announcement that contains the information the caller requested. Step 7 in this vector simply passes the call with no specific information.
8. The QUIT action, as before, sends the call back to the DEFINITY vector.

Cooperation between the DEFINITY vector and the CONVERSANT vector is fundamental to every Care Center.

Care Center Product Highlights

Customer Assist Care Center offers a variety of features to meet the needs of real people and their businesses.

- Anticipated delay routing
- Routing based on customer entries, customer profile, time of day, etc.
- Anticipated delay announcements
- Automated attendants and bulletin boards
- Standard and dynamic announcements
- Message drop
- Agent delivery of messages
- Customer callback
- Speech administration
- Dynamic port allocation
- Multilingual features (up to 11 languages) in the Platform Management package, callback messaging, and custom call routing
- Speech recognition (optional)
- Dial pulse recognition (optional)

Overview of Care Center Platform Management Package

The Platform Management package provides the tools to build and execute CONVERSANT vectors that handle incoming calls. With the platform, you can design CONVERSANT vectors to:

- Play announcements to callers
- Forward their calls to other extensions (requires the call to be returned to the DEFINITY for routing)
- Execute other CONVERSANT vectors or Script Builder applications

But before the system can perform any of these functions, a DEFINITY vector must first connect a call to a CONVERSANT channel that has Care Center assigned. The platform package answers through a single setup vector that ushers incoming calls to other CONVERSANT vectors you have built.

⇒ NOTE:

You build the setup vector previously mentioned by using the template described in “Sample Application #1: The Setup Vector” on page 5-15. Templates automatically create vectors to perform important and common call-handling tasks. Besides the setup template, the platform provides templates for:

- Dynamic port allocation
- Anticipated delay or estimated wait time announcements
- Queue-position announcements

Hard and Dynamic Port Allocation and the Converse Vector Step

A hard-allocated port is restricted to playing only one standard announcement or launching only one specific application. But this port can play an announcement to a big audience, all the members of which are individually listening at once on their own phones, having each been routed and queued to a CONVERSANT vector containing the ANNOUNCE action. A call center where all calls are routed to a customer-service line makes heavy use of hard-allocated ports. In this kind of environment, they are very economical.

A dynamically-allocated port, by contrast, has a wide repertoire. Unlike a hard-allocated port, which is likely to be an inactive port when there is no demand for it, a dynamically-allocated port can play a variety of different announcements or launch many different Script Builder applications. But only one caller at a time can hear a given dynamic announcement or use a given application on a single port, or per port.

One key element in the responsiveness of a dynamic port is the Converse vector step from the DEFINITY G3 or ECS R5 switch. By passing a caller's choices or other information such as the dialed number or callers phone number from the switch to the CONVERSANT system, this feature plays an indispensable role in making dynamic ports efficient and economical over time.

Figure 1-2 gives an idea of the difference between hard and dynamic ports and of the CONVERSANT and DEFINITY vectors that channel calls to each. The Platform Management package lies under a glass case that represents Care Center.

Above and outside the case, two DEFINITY vectors pass an incoming call to the Care Center setup vector. The DEFINITY vector on the left, does not carry any specific information that distinguishes the call from any others. The vector simply passes its call to a CONVERSANT vector containing an ANNOUNCE action that plays a standard announcement.

The DEFINITY vector on the right receives, through the Converse vector step, instructions from the caller to play a specific announcement containing

information tailored for the caller. It passes its call to a CONVERSANT vector that contains the DYN_ANNOUN action. This action, in turn, plays the dynamic announcement. Similarly, the DYNAMIC, EXECUTE, and SWITCH actions can respond dynamically with applications or vectors.

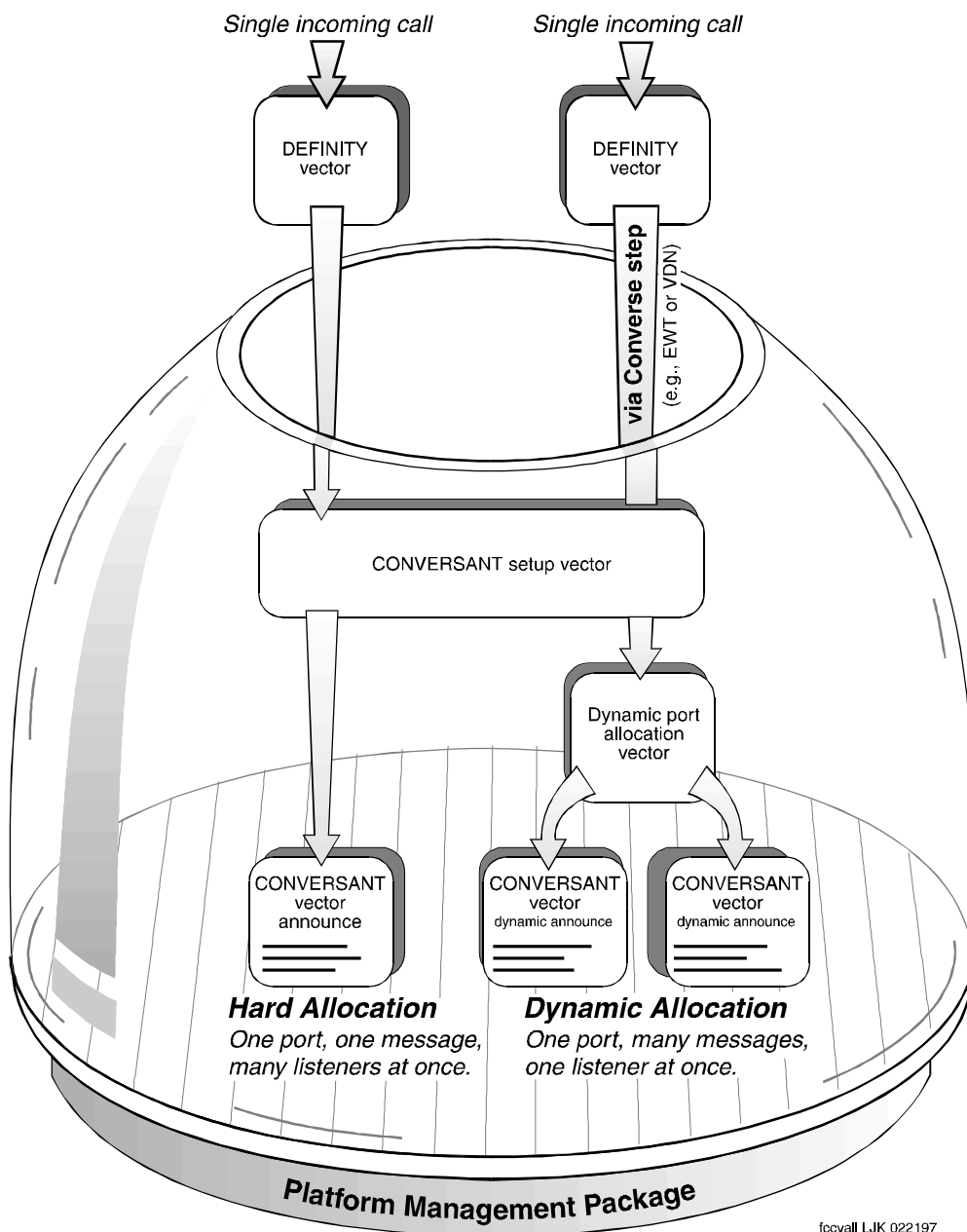


Figure 1-2. Hard Allocation vs. Dynamic Allocation (for Announcements)

Overview of Care Center Callback Messaging

The optional Callback Messaging package responds to callers who want to leave a message. To review messages and return customer calls, you can configure the Care Center Agent Access feature to:

- Act as a software agent in queue where the software sits in line for the caller and searches for the next available agent to whom it can deliver the message
- Deliver messages to agents as the agents become available
- Allow callers to schedule a callback
- Allow agents to call the CONVERSANT to transcribe messages

Two actions add Callback Messaging functions to CONVERSANT vectors:

- MSG_DROP - Takes messages
- TRANSRIBE (TRANSCRIBE) - Transcribes messages

This section describes each. (For more information about creating mailboxes and defining global parameters, see “Mailbox Administration” on page 4-58.)

MSG_DROP

This action activates a mailbox form that you configure with up to 15 prompts or questions for information. You define each question by choosing a speech phrase to play and the type of response to accept: data, schedule, record, or inform.

- Data-type response
This information is entered on the Data Configuration form, and allows you to collect touch-tone, speech recognition, or dial pulse recognition information from the caller such as an account number, ID, or callback telephone number. Data, whose value is a passed parameter, is selected on this form by making it an argument of type A, B, or C (see “Passed Parameters” in this chapter).
- Record-type response
This information is entered on the Record Configuration form and allows you to prompt callers to speak or record information such as name, address, or reason for the call.
- Schedule-type response
This information is entered on the Schedule Configuration form, and allows you to prompt callers to schedule a time to be called back by an agent.

- Inform-type response

This information is entered on the Information Configuration form and allows you to announce a phrase to the caller. It is provided to the caller without asking for input.

A mailbox form can prompt for a mixture of touch-tone, dial pulse, or speech recognition input to gather verbal responses, one telephone number to call back, one string of touch tones to deliver to the agent's display phone along with the call, or a requested time for callback. After prompting for verbal input, the system uses a beep to signal caller's responses. The system will not beep after prompting for touch tones. You can record and update prompts from any touch-tone phone.

To respond to prompts, callers either speak into the handset's speaker or press touch-tone digits. The system stores their responses on the system's hard disk drive for transcription later. The Speech Space Available report and the Audit Mailbox, both described in Chapter 4, "Administration", can help you monitor disk space available for prompts and messages.

Passed Parameters

CONVERSANT vectors can pass variable values to a mailbox form using optional arguments. Variable can be populated by:

- Prompting callers for a response
- Using information obtained through integration such as Automatic Number Identification (ANI) or Dialed Number Identification Service (DNIS)
- Passing information from the DEFINITY G3

For example, if a passed parameter for ANI is available, the associated variable may be used to populate a mailbox with a caller's telephone number automatically (see "MSG_DROP Action" on page 3-33.)

Once this information is collected, the MSG_DROP action activates a mailbox that is configured beforehand and loads the ANI. The mailbox has the provisions to prompt the caller to confirm any values passed. If there are no values passed, the system assumes a data field and prompts for it using the specified phrase.

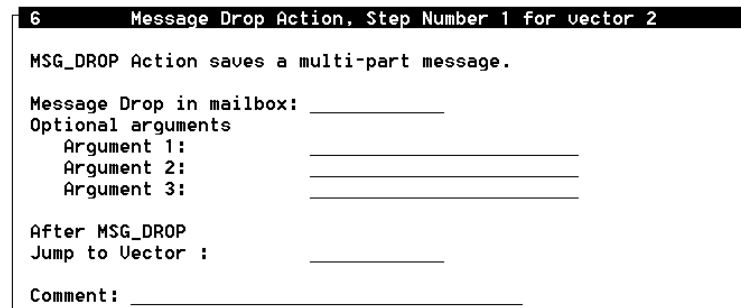
Jump-To Vector

If the caller completes a message drop and a "jump-to" vector is defined, the system saves the caller's message and activates another vector. You specify the vector to activate on the MSG_DROP action definition form.

NOTE:

To prevent callers from hanging up early, the first announcement in a series of prompts for a mailbox should advise callers to stay on the line for additional questions.

At your option, the system can signal agents when it receives new messages by lighting Message Waiting Lamps on their phones.



6 Message Drop Action, Step Number 1 for vector 2

MSG_DROP Action saves a multi-part message.

Message Drop in mailbox: _____

Optional arguments

Argument 1: _____

Argument 2: _____

Argument 3: _____

After MSG_DROP

Jump to Vector : _____

Comment: _____

Figure 1-3. MSG_DROP Action Definition Form

Schedule Callback Option — Callers

If callers choose to leave a message, the system allows callers to schedule a time to be called back by an agent. Prompts are provided as a part of the speech talkfiles for Mailbox Standard Speech Administration (see Chapter 4, “Administration”). The system offers callers three possible options (see Figure 1-4), to be called back:

- Immediately
- Later that same day
- To schedule a date up to 11 months in advance

Option two, Callback Later the Same Day, has the following restrictions:

- The system will not speak this option if the current time is equal to or greater than 11 p.m. The time is too close to 12 a.m. for callers to schedule a callback time for the same day.
- Callers can only enter future hours for the same day. For example, if the time is 11 a.m., the system will not accept 10 a.m. as a valid callback time.

Option three, Schedule Future date, has the following restriction:

- Callers can enter future date. For example, if September 11 is a previous date than the date called, the system will not accept the entry.

You should also include in the prompts the format of the time, day, and month the system expects including the:

- Hour between 1 and 12 (A.M./P.M. format) or 0 and 23 (military format)

- Day between 1 and 31
- Month between 1 and 12

The system does not accept wrong calendar days such as February 30.

 NOTE:

Since the software checks entered times and dates against the system's time/date clock, be sure to mention that your business hours and days of operation are based on your time zone, for example, EST, when recording your announcement prompts for Eastern Standard Time.

You can restrict these options by turning the prompts on or off at the Mailbox Global Settings menu (see Chapter 4, "Administration"). If a schedule option is not provided, the default is immediate callback.

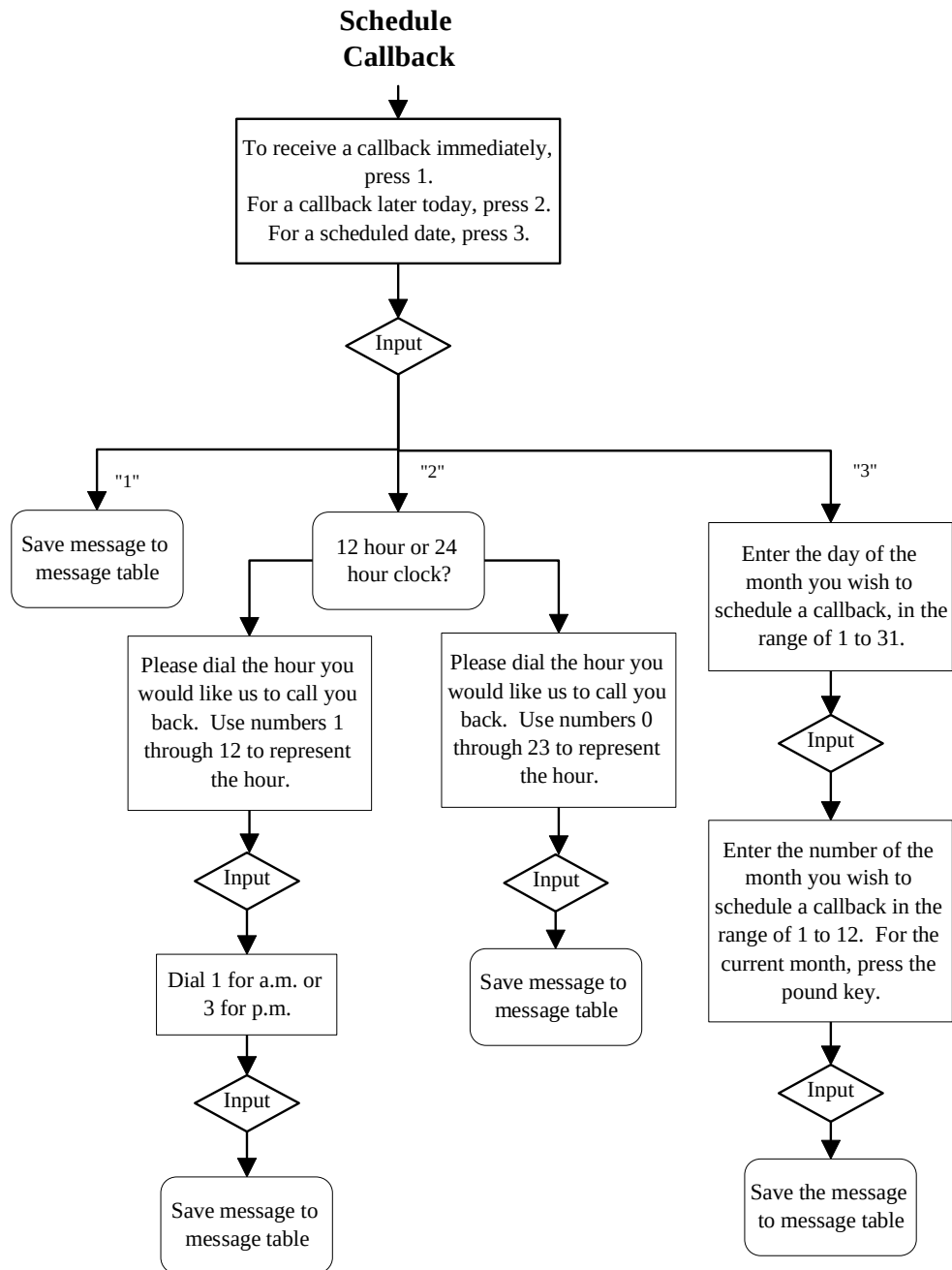


Figure 1-4. Schedule Callback Menu

TRANSRIBE (TRANSCRIBE)

Agents use this action to access voice mailboxes and return customer calls automatically.

When agents reach this action in a CONVERSANT vector, the system prompts them for a password (if a password was assigned to the mailbox). If you have not associated the TRANSRIBE action with a mailbox number on the TRANSRIBE action definition form shown in Figure 1-5, the system will also prompt for a mailbox number.

5 Transcribe Action, Step Number for vector
TRANSRIBE Action starts the transcription program.
Transcribe messages from mailbox: _____
Comment: _____

Figure 1-5. TRANSRIBE Action Definition Form

The system then speaks the number of new messages, saved messages, and messages being transcribed. New messages include messages that are scheduled for a later callback or Callback Retry Mode. This total does not include messages being transcribed, held in callback mode, or messages that have been transcribed and saved during the current call. You can choose to review all new and saved messages or access specific messages. For this last option, enter the number of the message to replay.

⚠ CAUTION:

To ensure that only authorized users have access to messages in mailboxes, do not use this action in vectors that communicate with external callers, and be sure to configure every mailbox with a password. (See Chapter 4, "Administration" for more about this password and other settings you can administer from the Care Center terminal.)

While listening to messages, agents can replay and skip both spoken and touch-tone responses, and they can pause and advance or retreat in 4-second increments through spoken responses (Figure 1-6). You can configure the system to replay both the prompts and responses or only the responses. In both cases, the system replays spoken responses exactly and uses prerecorded system speech to play touch-tone responses. Several agents can access messages in the same mailbox, but the system prevents two agents from listening at once to the same message.

Figure 1-6. Message Listening Options

Pressing any key continues playing back a message part (a response to a prompt) after playback has been paused (touch tone “7”). To replay a message part from the beginning, choose `Replay Current Segment`s (touch tone “1”). To replay the message from the first message part, choose `Replay Message` (touch tone “4”).

NOTE:

These options are only available via spoken menu.

After each message, the system offers a playback menu of options:

- `Replay`
- `Save`
- `Delete`
- `Launch a callback and save the message just heard`
- `Launch a callback and delete the message just heard`
- `Skip to the next message`
- `Pause and restart`
- `Skip`
- `Exit`

- Help
- Additional options: Forward, Prepend, and Schedule



TIP:

When transcribing messages from mailboxes configured with automatic outdial, agents can press any touch-tone key during the prompt "Please hold for callback" to interrupt the callback process and invoke the previous menu.

These relationships, shown in Figure 1-7 and Figure 1-8, illustrate how Callback Messaging typically works: plays back messages to agents, launches automatic callbacks, allows agents to classify callback attempts, schedules callbacks, forwards calls, and prepends messages.



NOTE:

To launch a callback, the system places the agent on hold and dials the caller's telephone number. The system uses the conference call function to return the agent to the call, and it remains on the line for an amount of time, called "Conference Time," specified in the Mailbox Global Settings menu. When it leaves the call, it either deletes or saves the message, depending on the option the agent chose previously.



NOTE:

To launch a callback you must dial into a port that has the TRANRIBE action assigned. A callback cannot be dynamically allocated and then launched. The other option is to use agent callback.

If a caller left an incomplete number, the system will abort the callback attempt and tell the agent why. If the caller did not include a number, or if you configured the mailbox without a prompt for a telephone number to call back, the system will report that the attempt was unsuccessful. Attempts are also unsuccessful if they result in a busy signal or no answer. After an unsuccessful attempt, the system automatically offers the menu that the agent can use to reclassify the call.

Alternatively, the agent can reclassify the call as unsuccessful from this menu by entering *99 at any time until Care Center leaves the conference call. This permits the agent to override the system's evaluation of the call's success when, for example, an answering machine is reached. After a callback attempt, an agent can choose to replay, delete, save, or skip the current message.



NOTE:

Pressing any touch-tone key while in the conference restarts the length of time that the administrator has configured the CONVERSANT to remain on the line. This capability should be used with care because called parties will hear any touch tones generated by keys that agents press.

After agents review all messages in a mailbox's new or saved category, they return to the main menu.

Schedule Callback Option — Agents

From the main menu, agents can schedule a callback time in the same manner as callers do as a part of a message drop, which was explained earlier in this section. However, in this case, agents schedule a callback when transcribing a message. To schedule a time to retry a callback, agents can press **[*]** to select the Additional Options menu. Once a scheduled time is selected, the message is saved to the message table as a “new” message until it is ready to be delivered by the system to the callback extension.

Forward Message and Prepend Options

During a period of high-volume calling or if an agent decides that a message needs the attention of a supervisor, the system allows messages to be forwarded to another mailbox. Agents can prepend a recorded segment as a note to an existing message before forwarding it. Prepending is also an option for messages that are not forwarded.

Prepended messages can provide details about the callback attempt for subsequent transcribers of that message. To prepend a message before forwarding, agents can press **[*]** to select the Additional Options menu. When the forward option is selected, the system will prompt the agent for an existing mailbox number. A voice prompt will notify agents that they have 30 seconds to record a message.

⇒ NOTE:

Messages that are forwarded to other mailboxes are still “linked” to the original mailbox even though they cannot be retrieved from the original mailbox. Therefore, if forwarded messages exist, neither the original nor the destination mailbox should be deleted since these messages will be unretrievable.

To prepend a message without forwarding it, agents can press **[*]** to select the Additional Options menu and choose the Prepend option. A voice prompt will notify agents they have 30 seconds to record a message.

The main menu includes an option to quit, but agents can exit the system at any time simply by hanging up.

Figure 1-7. Message Handling Options



Figure 1-8. Additional Options Menu

Using the Agent Access Feature

The Agent Access feature delivers messages to agents automatically. You administer Agent Access by adjusting Callback Messaging parameters, not by creating CONVERSANT vectors.

You can direct the system to dial an extension or, alternatively, a VDN that accesses a DEFINITY vector designed to gauge collective agent availability before attempting a callback. You may design this optional DEFINITY vector to return a busy signal whenever agent activity exceeds a set threshold. Refer to *Lucent DEFINITY Call Vectoring/EAS Guide*, 555-230-520 (G3), or -521 (ECS R5).

From the Mailbox Global Settings menu, identify the ports to use for out-dialing; from the Mailbox Definition form, identify the extension or VDN to dial. To prevent Agent Access from over-using CONVERSANT ports for redialing, take care not to set the channel access time too low.

When agents are available, Care Center monitors the telephone connection for speech energy if configured to do so, and, when an agent answers, delivers the call and invokes a transcription routine. As previously described, this can guide agents through the components of the message in the mailbox and allow them to return calls automatically. By configuring the mailbox to prompt for data (one field per mailbox), you can also deliver a number to the DEFINITY vector along with the call. Agents can view these numbers as calls arrive by pressing the CALLER INFO button on their display telephones.

To review additional messages after calls conclude, agents must call into the system or wait for more messages to be delivered.

Special Instructions for Line-Side T1/E1 Users

The CONVERSANT system cannot dial an agent, transfer a caller, complete a conference call, or return data to a DEFINITY vector until resources become available on the DEFINITY G3 or ECS R5 switch. In an analog configuration, the CONVERSANT monitors the connection for a dial tone. However, in a digital (line-side T1/E1) configuration, the CONVERSANT pauses for an amount of time represented by the Dial Tone Delay parameter on the CONVERSANT system's Digital Protocols screen. Whenever the DEFINITY G3 or ECS R5 switch cannot respond with resources in time (for example, during a period of high call volume) the CONVERSANT's attempt will fail. Remedies include increasing either the dial tone delay or the number of touch-tone receivers on the DEFINITY G3 or ECS R5 switch. Both analog and digital are either set to detect speech energy or not.

Overview of Care Center Custom Call Routing

The optional Custom Call Routing package routes incoming calls to extensions or splits, based on Automatic Number Identification (ANI) or other information.

The Custom Call Routing package adds one action, LOOK-UP, to Care Center.

This section describes LOOK_UP and explains how to use it with CONVERSE and DATA_RTN to custom-route incoming calls.

NOTE:

Care Center templates, described under “Selecting a Vector Template” on page 4-12, automatically create vectors to perform important and common call handling tasks that can be easily modified to your call center. Use the Custom Call Routing template to help build vectors for your Custom Call Routing applications.

LOOK_UP

This action accesses a Care Center Routing table to retrieve data values associated with a given key value. Custom call routing applications typically use LOOK_UP to access a table of account or ANI numbers associated with agent extensions. Because you can associate up to two values with each key value in a database, your applications can also transfer information to an agent's display telephone along with each call.

Routing Calls

To custom-route incoming calls, first use the Converse vector step in a DEFINITY vector to transfer each call to Care Center, together with an identifying item of information, such as ANI. ANI digits are the same as the caller's telephone number.

You must create a database table on Care Center to associate this data with agent extensions. If the CONVERSANT vector, through the LOOK_UP action, finds an extension or split in the database to associate with the call, it sends the feature access code (FAC) for DATA_RTN and the extension number to the DEFINITY vector. Then, the DEFINITY vector can route the call.

Other call treatment can be defined for cases where the CONVERSANT vector either cannot find information corresponding to the data identifying the call or finds more than one match.

A custom call-routing template, described under “Using the Custom Call Routing Template” on page 4-31, makes this type of application easy to build. Using this template, you can develop other applications that use the LOOK_UP action in cooperation with other actions. For example, by defining a table of item numbers,

you can access a local database of product information, such as the quantity of a given item in stock, and use the SPEAK_NUM action to communicate this information to callers.

Populating an Agent's Telephone Display

You can also use Custom Call Routing with the DATA_RTN action to send information to an agent's telephone set with display, or to a desktop computer for a screen pop using Aurora's FastCall software. As they respond to calls, agents can press the CALLER-INFO button on their telephones to view, for example, a caller's account number.

To deliver information to agents along with calls, you can create a database table to associate each ANI or other look-up value with two items of information: a vector directory number (VDN) to dial (not an agent extension) and information to send to the agent's display. You must also create a DEFINITY vector (accessed using a VDN) for each agent extension or split you plan to use. Consider the following example:

1. A DEFINITY vector uses the Converse vector step to deliver both a call and its ANI information to a CONVERSANT vector.
2. The CONVERSANT vector, through the LOOK_UP action, finds a record in its database, and retrieves the VDN and account number corresponding to the ANI.
3. The vector then uses the DATA_RTN action with the FAC for Data Return to pass the VDN and the account number to the DEFINITY G3 or ECS R5 switch.



NOTE:

Specify the account number on the next line of the definition form for the DATA_RTN action and follow it with the field delimiter "#" to eliminate interdigit time-out delay.

4. The DEFINITY G3 or ECS R5 switch collects the VDN from the CONVERSANT vector and uses it to access a DEFINITY vector especially configured to route the call to the extension or split specified in the vector. Before transferring the call, however, this second DEFINITY vector uses a second collect step to receive the account number from the CONVERSANT vector's DATA_RTN action. An agent with a telephone display can view the digits acquired by this second collect step before answering the call.



NOTE:

Since this method uses an individual DEFINITY vector for each extension or split to dial, this method should be implemented for a small number of splits or individual agent extensions.

Overview of Care Center Speech Recognition

The optional Speech Recognition package allows the collection of spoken input in both the Platform Management package and Callback Messaging package.

The Speech Recognition package adds one action, GET_SPCH, to Care Center.

It also allows Speech Recognition to be used in the Callback Messaging to collect caller input.

The package uses Whole Word Speech Recognition technology to collect digits as well as yes-no spoken by callers. It will recognize the spoken input in the base language by default or the language set using the CHG_LANG action. It requires the appropriate CONVERSANT Whole Word Speech Recognition model to be loaded in order to work. (Refer to *INTUITY CONVERSANT System Version 6.0 Administration*, 585-310-591 manual.)

GET_SPCH

This action allows the specification of up to five prompts to collect spoken input, which will then be loaded into a variable. For short input, only one prompt is needed to collect the input. For longer input such as an account number or phone number, the input can be collected in pieces and combined later.

In Callback Messaging

If the Callback Messaging package is loaded, it will enable the administrator to specify whether a mailbox accepts spoken inputs for the data and schedule segments along with touch-tone inputs.

Overview of Care Center Dial Pulse Recognition

The optional Dial Pulse Recognition package allows the collection of dialed input using a rotary phone in both the Platform Management package and Callback Messaging package.

The Dial Pulse Recognition package adds one action, GET_DIALP, to Care Center.

It also allows Dial Pulse Recognition to be used in the Callback Messaging to collect caller input.

The package uses Dial Pulse Recognition technology to collect digits dialed by callers. It requires the CONVERSANT Dial Pulse Recognition to be enabled in order to work. (Refer to *INTUITY CONVERSANT System Version 6.0 Administration*, 585-310-591 manual.)

GET_DIALP

This action allows the specification of up to five prompts to collect dialed input which will then be loaded into a variable. For short input, only one prompt is needed to collect the input. For longer input such as an account number or phone number, the input can be collected in pieces and combined later.

In Callback Messaging

If the Callback Messaging package is loaded, it will enable the administrator to specify whether a mailbox accepts dialed inputs for the data and schedule segments along with touch-one inputs.

This chapter provides a setup checklist for the first-time user, and then shows how to log in and how to navigate through the Customer Assist Care Center's screens.

Getting Started

Setting up your system

The following checklist is a quick summary of all of the steps that you should take when setting up your Customer Assist Care Center system and specific applications in your call center. Additional information in pertinent chapters is referenced.

This list is intended for switch administrators, operations installers, and system administrators setting up a new call center system with this current version of Care Center.

1. Make sure that you have created all of your Hunt Groups, VDN's and Vectors on the DEFINITY switch that allow callers to be queued, music to be played on hold, converse/data return actions, etc. See *Lucent DEFINITY ECS R5Call Vectoring/EAS Guide*, 555-230-521 (G3).
2. Install the Care Center software on your CONVERSANT hardware platform. See "Overview of Installation and Removal" on page 7-1.
3. Load all additional packages such as Callback Messaging, Custom Call Routing, additional languages, Speech Recognition, or Dial Pulse Recognition.
 - Set your base language

 NOTE:

The first language disk you load will set the base language for the whole application unless the language is changed later in Speech Administration. For more information, see “Changing the Base Language” on page 4-54.

— Reboot your CONVERSANT hardware.

4. Log into your CONVERSANT. See “Logging In” on page 2-3.
5. Assign Customer Assist Care Center to the appropriate CONVERSANT channels. See “Sample Application #1: The Setup Vector” on page 5-15.
6. Create the callflow for your current application either on paper or using a callflow software program. A callflow is helpful when planning speech and other portions of your call center application. See “Sample Application #2: Standard Announcement” on page 5-25, “Sample Application #3: Dynamic Announcement” on page 5-37, and “Sample Application #4: Automated Attendants” on page 5-49.
7. Record all of the application speech prompts using the Speech Administration package in Customer Assist Care Center. See “Sample Application #2: Standard Announcement” on page 5-25.
8. Create variables and mailboxes using Callback Messaging Administration. For more information see “Variable Administration” on page 4-55 and “Mailbox Administration” on page 4-58.
9. Record all of your mailbox speech prompts using the Speech Administration package in Customer Assist Care Center. See “Sample Application #2: Standard Announcement” on page 5-25 and “Sample Application #10: Callback Messaging” on page 5-149.
10. Create routing tables that you need for your call center application. See “Routing Table Administration” on page 4-83.
11. Import or add any data into routing tables before creating vectors. See “Sample Application #8: Custom Call Routing” on page 5-129.
12. Build your application vectors. See “Sample Application #2: Standard Announcement” on page 5-25, “Sample Application #3: Dynamic Announcement” on page 5-37, and “Sample Application #4: Automated Attendants” on page 5-49.
13. Change your setup vector to “point” to your new vectors. See “Sample Application #1: The Setup Vector” on page 5-15.
14. Place your new vectors (including the changes just made to the setup vector) “in service” so they become active. See “Sample Application #1: The Setup Vector” on page 5-15.

Logging In

To begin administering your Customer Assist Care Center system, first enter an authorized user name and password.

1. At the prompt console login, type **ccc** and press **(ENTER)**.
2. At the prompt password, type your password and press **(ENTER)**.
3. You will then be prompted for the system's root password. Type the password and press **(ENTER)**.

The Customer Assist Care Center main menu will appear. It presents the main options for administering the Customer Assist Care Center system.

➡ NOTE:

To ensure security, change the default password soon after you log into the system for the first time and periodically thereafter. (For instructions, refer to Section A of the *INTUITY CONVERSANT VIS Version 6.0 Upgrade Manual*, 585-310-183.)

Status Line

While administering Customer Assist Care Center, refer to the status line at the bottom of your screen, shown in Figure 2-1, for available options at any screen. This line displays the functions assigned to the numbered function keys (**F1** through **F8**) on the CONVERSANT keyboard.

Instructions in this chapter will refer to these functions both by name and corresponding function key.

➡ NOTE:

Not all of the following functions are available at all times.

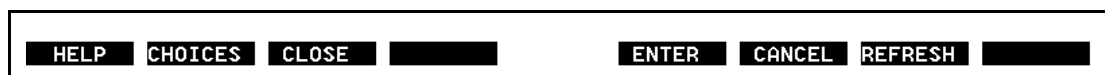


Figure 2-1. Status Line

ADD-PHR	Allows you to create a new phrase tag for ANNOUNCE, MENU, GET_SPCH, and GET_DIALP actions during call vector configuration.
CANCEL	Discards all unsaved entries and returns you to the previous screen (menu or form).
CHANGE	Changes a record in a routing table.

CHG-KEYS	Offers an alternative set of functions on the status line. Pressing CHG-KEYS again recovers the previous functions.
CHOICES	Lists possible responses to a prompt for input. When three or fewer choices are available, you must repeatedly press CHOICES until the item you want appears. The status line will indicate if no choices are available.
CLOSE	Exits a definition form and saves all input. Also saves during mailbox administration.
CMD-MENU	Provides a menu of standard options, including some described in this section.
CONT	Allows you to continue to administer Customer Assist Care Center after you encounter a warning or an error.
DEFINE	Allows you to associate new parameters with actions or define message segments in the mailbox forms. Definition forms appear on-screen automatically after you choose new CONVERSANT vector actions or mailbox segment types.
DELETE	Deletes a record from a routing table.
DIAL	Lets you identify the telephone and channel to use to record speech phrases.
ENTER	Acts just like the RETURN key to register a menu choice or typed entry.
HELP	Provides context-sensitive on-screen help information.
INDEX	Available at the main menu, it provides context-sensitive on-screen help information by keyword.
INSERT	Inserts a new line wherever you position the cursor on the CONVERSANT vector worksheet. Also allows you to insert prompts within mailbox forms.
LAUNCH	Dials any telephone to record speech phrases.
MARK	Selects a CONVERSANT vector, phrase, mailbox, routing table or variable to delete.
NEXT-FRM	Moves your cursor forward through option frames.
NEXTPAGE	Moves your cursor forward through a single multipart definition form.
PREV-FRM	Moves your cursor to previous option frames.
PREVPAGE	Moves your cursor backwards through a single multipart definition form.
PRINT	Prints a report.
RECORD	Selects a speech phrase to record.

REFRESH	Reprints the screen after it is disordered by a faulty modem transmission or other cause.
REMOVE	Deletes an action from a vector or a message segment in the mailbox forms.
SAVE	Saves a new or changed CONVERSANT vector or database table.



CAUTION:

The following characters and key commands are invalid in Customer Assist Care Center administration and should not be used, as they may cause the menu system to lock up:

- `CTRL`
- `|` (Pipe symbol)
- `\` (Backslash, except as delimiter when importing data from diskette)

Navigating the System

Customer Assist Care Center Main Menu

After you login to Customer Assist Care Center, the main menu appears, as shown in Figure 2-2.

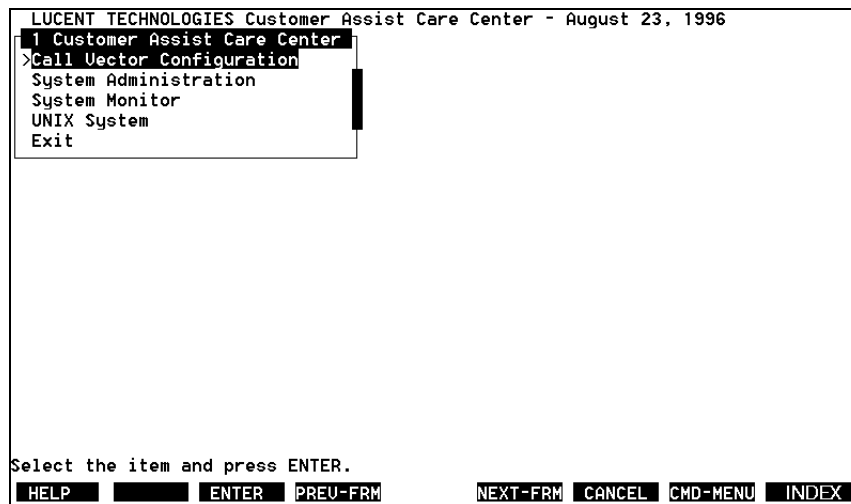


Figure 2-2. Customer Assist Care Center Main Menu

You begin all system activities by highlighting one of the following options and pressing **ENTER**.

- Call Vector Configuration
- System Administration
- System Monitor
- UNIX System
- Exit



TIP:

TIP: If you have entered into a screen to view definitions and have not made any changes, press **CANCEL F6** rather than **CLOSE F3** or **SAVE F3** to return to the previous screen faster. The cursor will be left where it was rather than sent back to the top of the screen.

Call Vector Configuration

Use this menu, shown in Figure 2-3, to create, delete, and modify CONVERSANT vectors. The menu also allows you to place new or modified vectors into service.

Figure 2-3. The Vector Configuration Menu

When you place new vectors in service, the system retains a copy of every vector and its parameter settings in a database used exclusively for development. This permits you to create and modify CONVERSANT vectors without immediately influencing the way the system handles calls. Options at this menu are:

- Create New Vector
- Edit Vector
- Delete Vector
- Copy Vector
- Select Vector Template
- Audit Vector Database
- Place New Vectors in Service

Create New Vector

This screen enables you to build new vectors from scratch. Use this grid form to insert actions to build your vector. For more information on creating new vectors, see "Creating a New CONVERSANT Vector" on page 4-6.

➤ NOTE:

On each empty action step, CHOICES **[F2]** will give you a list of available actions.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 24, 1996

1 Custo **3** **EDIT VECTOR NUMBER 55 STEPS**

>Call Ue
System
System
UNIX Sy
Exit

Vector Name: _____ Vector Number: 55
Description: _____

Step	Action	Description
1	_____	
2	_____	
3	_____	
4	_____	
5	_____	
6	_____	
7	_____	
8	_____	
9	_____	
10	_____	
11	_____	
12	_____	
13	_____	
14	_____	

Enter the vector name.

HELP INSERT REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS

Figure 2-4. Create Vector Form

Edit Vector

This screen shows you available vectors that can be edited. Each time you create a new vector, it will be added to this list. For more information on editing vectors, see “Editing a CONVERSANT Vector” on page 4-7.

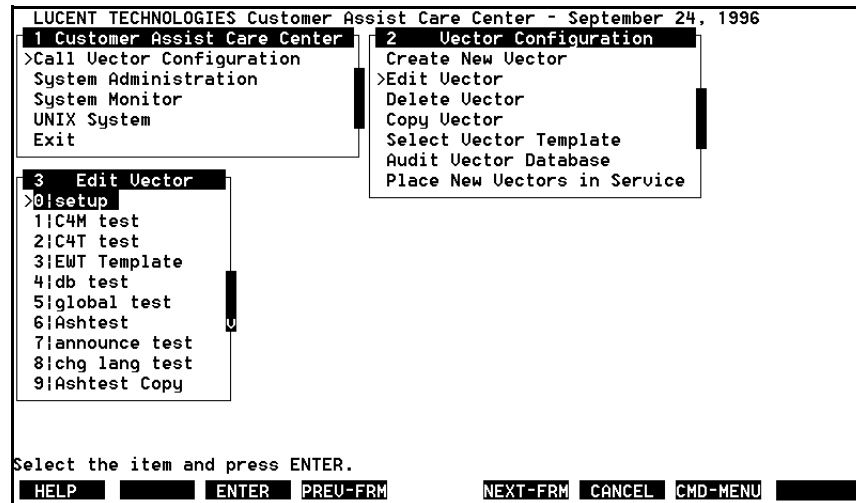


Figure 2-5. Edit Vector Menu

Delete Vector

This menu gives a list of current vectors that can be deleted. Like the edit Edit Vector menu, any new vectors will be added to it. For more information on deleting vectors, see “Deleting a CONVERSANT Vector” on page 4-11.

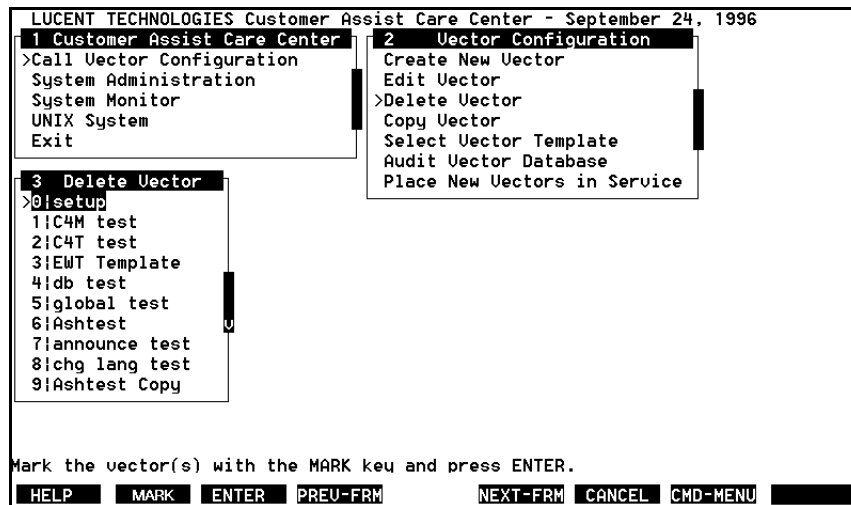


Figure 2-6. Delete Vector Menu

Copy Vector

This menu allows you to create a copy of a vector giving it a new name. Use this function to copy a vector and make changes instead of rebuilding the entire vector. You can also use the function to create a backup vector. For more information on copying vectors, see "Copying a CONVERSANT Vector" on page 4-11.

The screenshot shows a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - September 24, 1996". It displays a menu structure with three main sections:

- 1 Customer Assist Care Center**
 - >Call Vector Configuration
 - System Administration
 - System Monitor
 - UNIX System
 - Exit
- 2 Vector Configuration**
 - Create New Vector
 - Edit Vector
 - Delete Vector
 - >Copy Vector
 - Select Vector Template
 - Audit Vector Database
 - Place New Vectors in Service
- 3 Copy Vector**
 - Vector Num Vector Name
 - Copy from Vector : _____
 - To Vector : 55 _____
 - Description: _____

At the bottom of the form, there is a prompt: "Enter the vector to copy from." and a row of buttons: HELP, CHOICES, CLOSE, ENTER, CANCEL, and REFRESH.

Figure 2-7. Copy Vector Form

Select Vector Template

The Template Type menu offers choices of templates that load pre-built vectors into your call center application. These templates are useful because they streamline the process of creating standard vectors like Estimated Wait Time vectors or Custom Call Routing vectors. You can make changes in the template and save them under another name or use them as is. For more information on vector templates, see “Selecting a Vector Template” on page 4-12.

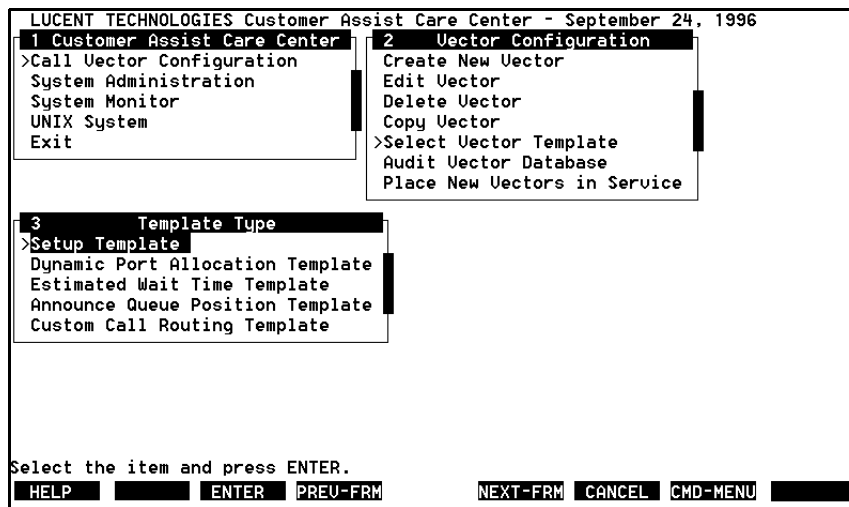


Figure 2-8. Select Vector Template Menu

Audit Vector Database

This option allows you to run an audit to determine any problems with in-service vectors. For more information on auditing the vector database, see "Auditing the Vector Database" on page 4-36.

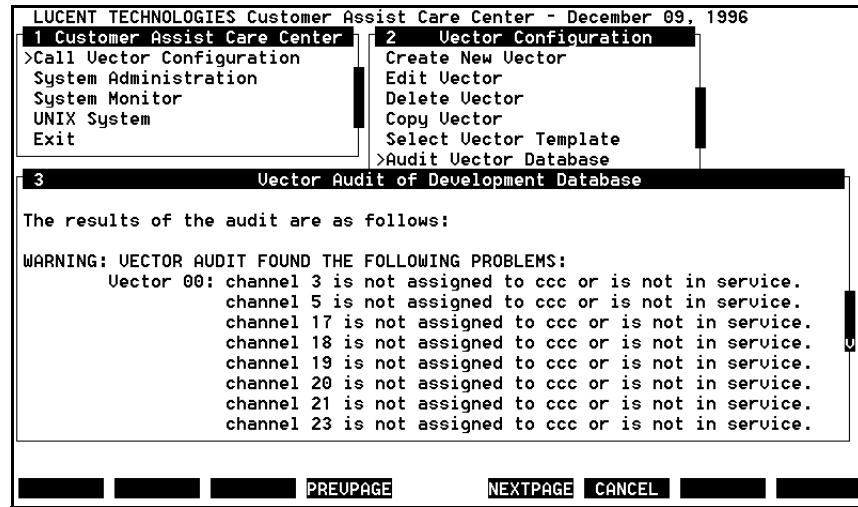


Figure 2-9. Audit Vector Database Menu

Place New Vectors in Service

This menu allows you to update vectors and place them in service. For more information, see “Placing New CONVERSANT Vectors in Service” on page 4-38.

```
LUCENT TECHNOLOGIES Customer Assist Care Center - September 24, 1996
1 Customer Assist Care Center
>Call Vector Configuration
System Administration
System Monitor
UNIX System
Exit
2 Vector Configuration
Create New Vector
Edit Vector
Delete Vector
Copy Vector
Select Vector Template
Audit Vector Database
>Place New Vectors in Service
3 Confirm
Place vectors in service:
Vector audit: found 8 potential problems.
Changes HAVE been made to the development database
since you last placed vectors in service:
0!setup
Press CONT to place vectors in service. Press CANCEL to return to menu.
CONT PREUPAGE NEXTPAGE CANCEL
```

Figure 2-10. Place New Vectors in Service Screen

System Administration

Use this menu to set up mailboxes and callback messaging functionality, generate reports, administer speech, and work with variables.

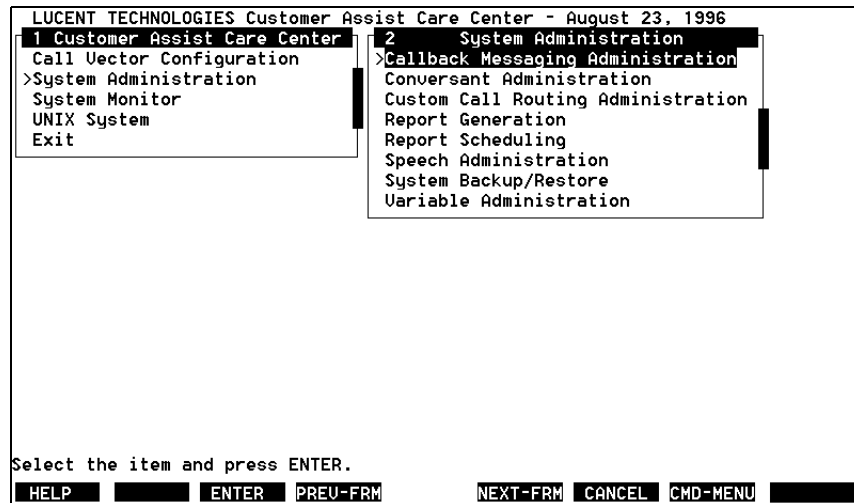


Figure 2-11. System Administration Menu

Options at this menu include:

- Callback Messaging Administration
- Conversant Administration
- Custom Call Routing Administration
- Report Generation
- Report Scheduling
- Speech Administration
- System Backup/Restore
- Variable Administration

Callback Messaging Administration

Use this menu to:

- Administer mailboxes
- Set up global settings
- Set up callback hours

These screens lead to setting up callback functionality. For more information on how each of them work, see “Mailbox Administration” on page 4-58, “Mailbox Global Settings” on page 4-75, or “Agent Callback Hours” on page 4-79.

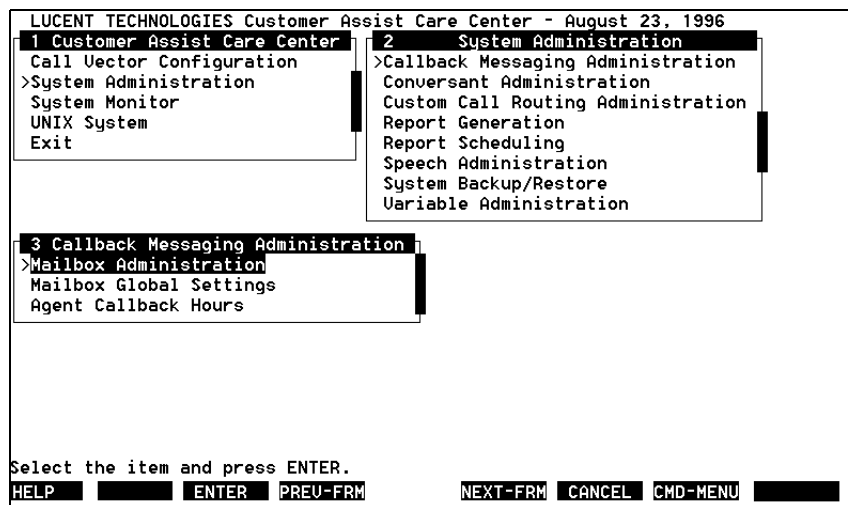


Figure 2-12. Callback Messaging Administration Menu

CONVERSANT Administration

This menu allows you to do some work on the CONVERSANT side of Care Center. See “CONVERSANT Administration” on page 4-88.



Figure 2-13. CONVERSANT Administration Main Menu

Custom Call Routing Administration

Use this menu to:

- Import or export data from a floppy diskette
- Administer the routing tables
- Administer records

These menus allow you to create and maintain routing records. For more information, see "Custom Call Routing Administration" on page 4-80.

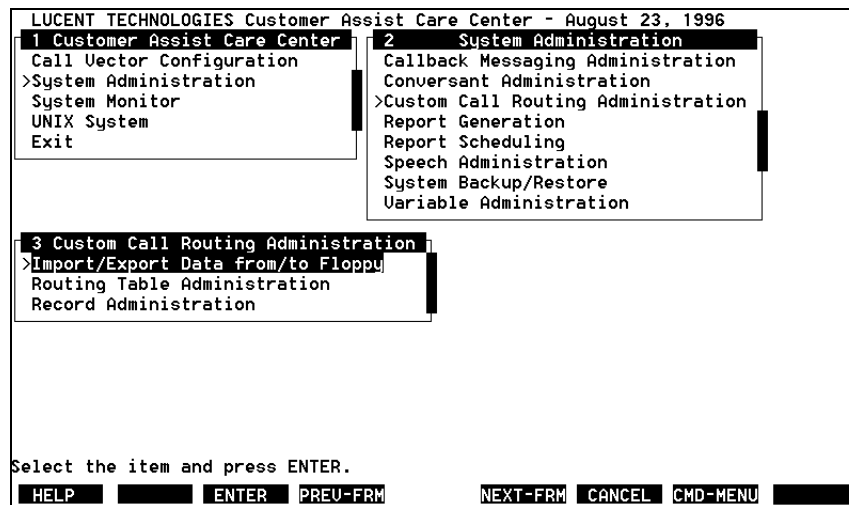


Figure 2-14. Custom Call Routing Administration Menu

Report Generation

This menu allows you to choose which report to generate. For most reports, you enter criteria, such as the day or time to run the report. Each report can be viewed on screen or printed.

For more information on Report Administration and individual reports, see "Report Generation" on page 4-89.

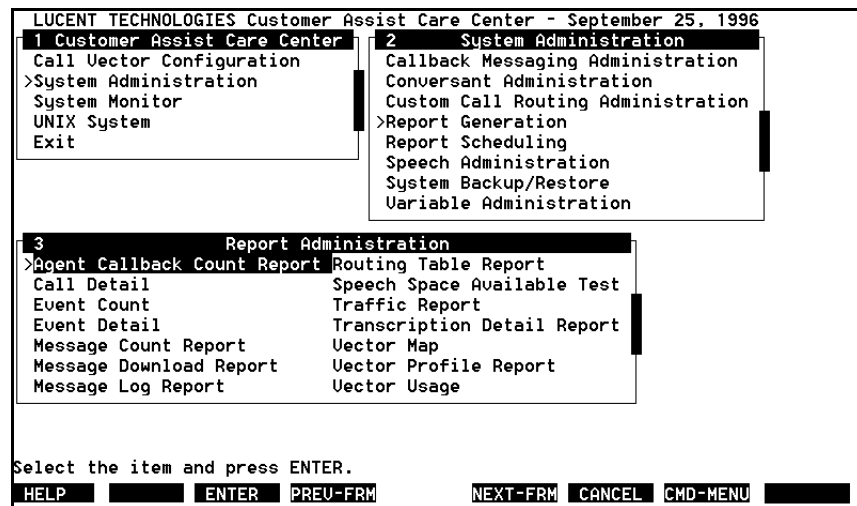


Figure 2-15. Report Generation Menu

Report Scheduling

This form allows you to select which reports to run on a scheduled basis and the time to run them. You can run reports at any time that is convenient. For more information on scheduling reports, see "Report Scheduling" on page 4-112.

LUCENT TECHNOLOGIES Customer Assist Care Center - August 23, 1996

1 Customer Assist Care Center

- Call Vector Configuration
- >System Administration
- System Monitor
- UNIX System
- Exit

2 System Administration

- Callback Messaging Administration
- Conversant Administration
- Custom Call Routing Administration
- Report Generation
- >Report Scheduling
- Speech Administration
- /Restore nistration

3 Report Scheduling Options

Time to Run Daily Reports: 12 midnight

Number of Days to Archive Data: 7

Run Traffic Report: yes

Run Vector Usage Report: yes

Run Event Count Report: yes

Run Event Detail Report: yes

Run Call Detail Report: yes

Run Callback Count Report: yes

Print Reports Automatically: yes

Enter number of days (0-7) you want to archive data

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 2-16. Report Scheduling Options Form

Speech Administration

This menu allows you to record new speech or change existing speech phrases. Its options include:

- Vector Phrase Administration
- Mailbox Phrase Administration
- Mailbox Standard Speech Administration
- Standard Speech Phrase Administration
- Password Administration
- Generate Phrase List
- Change Base Language

The speech that is created and recorded in the above options will be used in mailboxes and other areas of your call center.

For more information in any of these areas, see “Speech Administration” on page 4-42.

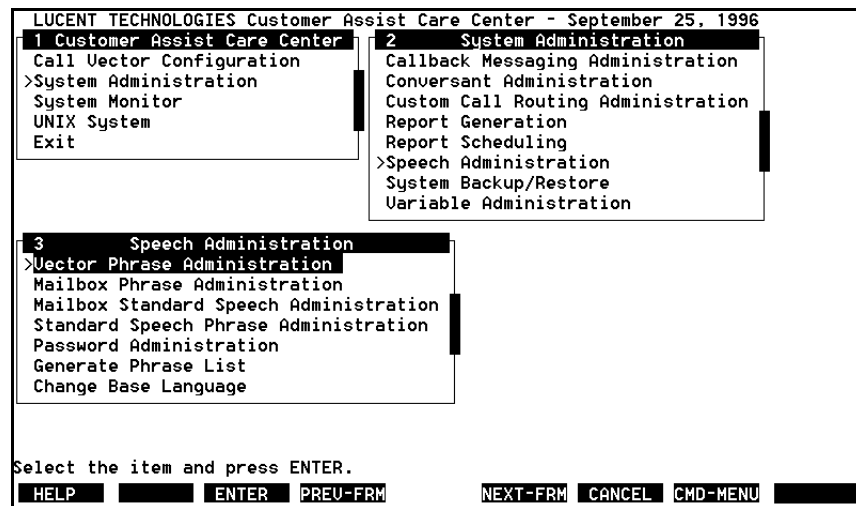


Figure 2-17. Speech Administration Menu

System Backup/Restore

This menu allows you to back up or restore information from or to floppy disks with these options:

- Restore Vector Database
- Backup Vector Database to Floppy Disk
- Backup/Restore Speech
- Backup/Restore Mailbox Configuration
- Format Floppy Disk
- Restore Data from Previous Version of Call Center
- Copy File from/to Diskette

These menus also enable you to restore vectors or mailboxes from a previous version of Care Center. To do this, you restore information from a diskette.

For more information, see “System Backup/Restore” on page 4-115.

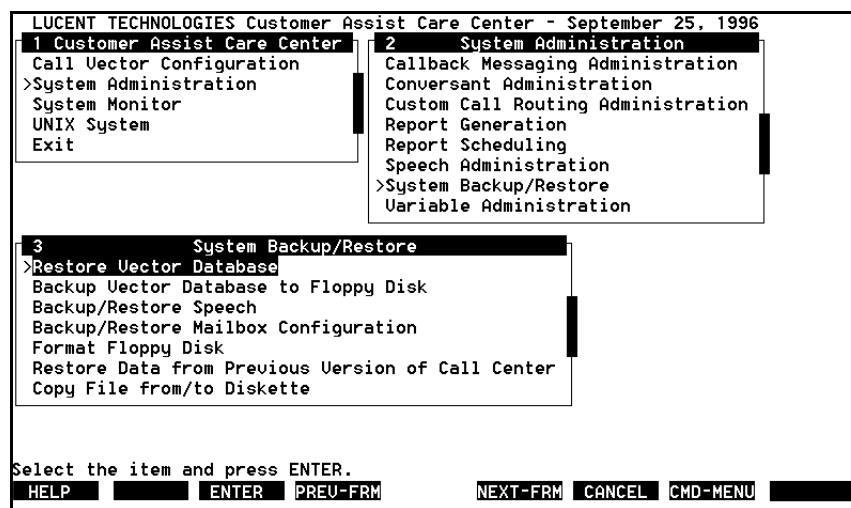


Figure 2-18. System Backup/Restore Menu

Variable Administration

This menu allows you to add, remove, or edit variables. Variables are entities that hold information or a value to be used by a program. They can be up to 24 characters long. If the variable holds a number that will be used in an arithmetic calculation, the number cannot be greater than 2 billion or less than negative 2 billion. When you add a new variable, the name can contain 2 to 9 characters.

For more information on how to create and work with variables, see “Variable Administration” on page 4-55.

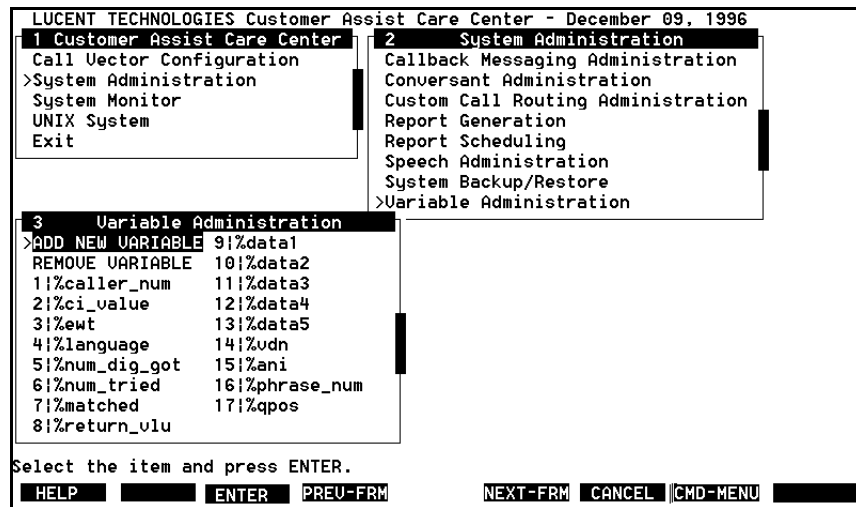


Figure 2-19. Variable Administration Menu

System Monitor

The system monitor keeps track of calls coming into the call center. To access the monitor, select System Monitor under the main menu.

- For more information on the system monitor, refer to the *INTUITY CONVERSANT System Version 6.0 Administration*, 585-310-591, book.

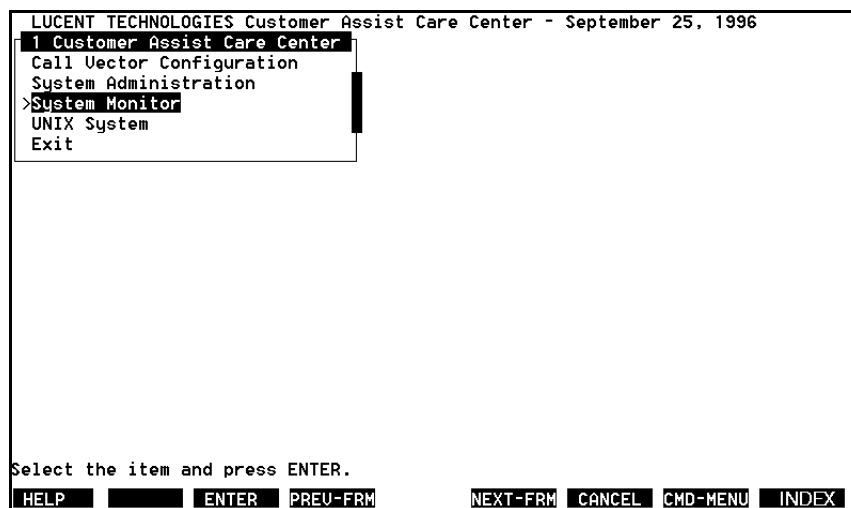


Figure 2-20. System Monitor Menu

System Monitor - Voice Channels					
Channel	Calls Today	Voice Service	Service Status	Caller Input	Dialed Digits
0	5		×0n Hook		
1	1		×0n Hook		
2	0		×0n Hook		
3	0		×0n Hook		
4	0		×0n Hook		
5	0		×0n Hook		

HELPPREVPAGENEXTPAGECANCEL CMD-MENU

Figure 2-21. System Monitor of Voice Channels

This chapter offers information on:

- Vectoring capabilities
- Working with variables and actions

Read this chapter and be sure to understand its concepts before starting the sample applications in “Strategies for Building a World-Class Call Center” on page 5-3.

CONVERSANT Vector Actions

This section describes the actions associated with CONVERSANT vector administration in the Platform Management package. The following screen lists available actions.



NOTE:

ADA_CALC and EWT actions will not appear at the same time under the Select Action menu because they apply to different DEFINITY switch versions.

LUCENT TECHNOLOGIES Customer Assist Care Center - January 23, 1997

1 Custo 3 EDIT VECTOR NUMBER 2 STEPS

>Call Use
System
System
UNIX Sy
Exit

Vector Name: _____ Vector Number: 2
Description: _____

Step	Action	Description
1		

4 Select Action

>ADA_CALC GET_DIGT REPORT
ANNOUNCE GET_SPCH SCHEDULE
CHAN_ASN GLOBAL SET
CHG_LANG GOTO SPCH_ADMN
CONVERSE HANG_ACT SPEAK_NUM
DATA_RTN LOOK_UP SWITCH
DYNAMIC MENU TRANSFER
DYN_ANNOU MSG_DROP TRANSCRIBE
EXECUTE OFF_HOOK
GET_DIALP QUIT

14

Select the action and press ENTER.

HELP ENTER PREV-FRM NEXT-FRM CANCEL

Figure 3-1. Select Action Menu

ADA_CALC Action

Used after the CONVERSE action to calculate the approximate time a caller will wait in queue.

Available only with DEFINITY G3V3 and earlier switches, the ADA_CALC action uses the caller's position in queue, received from the switch, in conjunction with your estimates of the average length of a call and the number of agents available, to estimate how long a caller must wait in queue.

Use the ADA (Anticipated Delay Announcement) template described on page 4-23 for help building your announcements. Another version of this template, the Announce Queue Position template, can speak a caller's position in queue (see page 4-27). ADA and Announce Queue Position templates, like all those supplied with Customer Assist Care Center, automatically create CONVERSANT vectors to perform important call handling tasks.

To calculate this estimate, the system multiplies the average duration of a call by the number of callers ahead of the current caller (plus the number of "agents staffed" as entered in the ADA_CALC table). Then, it divides this product by the number of agents staffed.

Calculation: (Number of Callers Ahead of Current Caller + Number of Agents Staffed) * Average Call Duration/Number of Agents Staffed

NOTE:

The ADA_CALC action truncates its calculation by the minute with a minimum of 1 minute. For example, if the calculated delay was 30 seconds, the caller would hear 1 minute. If the calculated delay was 2 minutes 30 seconds, the caller would hear 2 minutes.

LUCENT TECHNOLOGIES Customer Assist Care Center - January 07, 1997

1 Custo 3 EDIT VECTOR NUMBER 55 STEPS

>Call Ue
System
System
UNIX Sy
Exit

Vector Name: _____ Vector Number: 55
Description: _____

Step	Action	Description
1		5 ADA_CALC Action Step Number 1 for vector 55
2		
3		ADA_CALC CALCULATES THE ANTICIPATED DELAY IN QUEUE
4		Avg. Call Length: _____ Queue Position : _____
5		Result : _____
6		Comment: _____
7		
8		Number of Agents Staffed
9		SUN MON TUE WED THU FRI SAT
10	6 AM	_____
11	7 AM	_____
12	8 AM	_____
13	9 AM	_____
14	10 AM	_____
	11 AM	_____

Enter the duration in seconds, followed by pressing the Return key.

HELP CHOICES CLOSE PREVPAGE NEXTPAGE CANCEL REFRESH

Figure 3-2. ADA_CALC Action Form

1. After Avg. Call Length, enter an estimate, in seconds, of how long each caller will be on line with an agent.
2. After Queue Position, enter the name of the variable you used with CONVERSE to acquire the caller's queue position.
3. After Result, enter the name of the variable ADA_CALC should use to return its estimate, in minutes, of how long this caller will wait in the queue.
4. Optionally, enter a comment to associate with the ADA_CALC action.
5. Move your cursor to the grid titled Number of Agents Staffed. For each day of the week (found above the cursor) and each hour of the day (found to the left of the cursor), estimate how many agents will be staffed. Blank spaces correspond to 0 agents. Use PREVPAGE [F4], NEXTPAGE [F5], and the directional keys to move around this form.

ANNOUNCE Action

Plays a specific recorded message. You can use ANNOUNCE anywhere in a CONVERSANT vector to speak information, prompt a caller for input, or play a “standard announcement,” to many callers at once in an ACD (Automatic Call Distribution) queue up to the limits of your switch.

To provide a standard announcement, a DEFINITY vector first connects calls to an announcement extension corresponding to a CONVERSANT channel. In turn, Care Center takes this channel off-hook and launches a hard-allocated vector that you have configured with at least one ANNOUNCE action. After the recorded message finishes, the CONVERSANT hangs up and vector processing continues in the DEFINITY vector.

You can record announcements by:

- using the SPCH_ADMN action in a CONVERSANT vector, (see “SPCH_ADMN Action” on page 3-41)
- or through Speech Administration (see “Administration of Phrases for Vectors, Mailboxes, and Standard Speech” on page 4-42.)

Later, you can update your phrases from any touch-tone phone by dialing a vector containing the SPCH_ADMN action and entering a valid number and password. (Refer to “SPCH_ADMN Action” on page 3-41 or “Speech Administration” on page 4-42 for more information about speech administration.)



NOTE:

Standard announcements were not available over digital (line-side T1/E1) lines until G3V4.



CAUTION:

The ANNOUNCE action, during the call, cannot be interrupted by the caller using Speech Recognition or Dial Pulse Recognition.



CAUTION:

The ANNOUNCE action CAN be interrupted using a touch tone. If an ANNOUNCE action is interrupted with a touch tone, that speech—plus any speech later in the vector—will be skipped, and that tone will be used as input in the action that collects input, such as a MENU, GET_DIALP, GET_SPCH, or GET_DIGT action. For example, if a vector has two ANNOUNCE actions and a MENU action (described later in this chapter) and if the caller presses a touch-tone key while listening to the first ANNOUNCE, Care Center will skip the first ANNOUNCE action AND the second ANNOUNCE action AND the prompt used in the MENU action. Care Center will use the input to the touch-tone prompt as input for the MENU action.

**CAUTION:**

In the case where the DEFINITY vector routes callers to an announcement extension that then routes callers to a hard-allocated CONVERSANT port, the preceding cautions do not apply. Therefore, 256 callers could all hear a standard announcement on the CONVERSANT, yet that announcement would be unaffected by any of those callers pressing a touch tone. The touch tone entered would be used by the DEFINITY in the next collect action step in the DEFINITY vector on a per call basis.

Call Vector Configurationmer Assist Care Center - December 11, 1996

1 Custo 4 EDIT VECTOR NUMBER 39 STEPS

>Call Use
System Vector Name: RC-Main Greet Vector Number: 39
System Description: Rock Coast Main Greeting
UNIX Sy

6 ANNOUNCE Action Step Number 2 for vector 39

ANNOUNCE Action step speaks a phrase to caller

Talkfile Number: 6104 US English
Allow Interrupt: yes

Phrase Tag: Rock Coast - Main Greeting
Phrase Number: 5000

Phrase Text: Thank you for calling Rock Coast Software. A representative will be with you shortly. Thank you for your patience.

Press the CHOICES key for the list of valid phrase tags.

HELP CHOICES CLOSE ENTER CANCEL REFRESH ADD-PHR

Figure 3-3. ANNOUNCE Action Form

1. After the Talkfile Number, enter the Vector Phrase talkfile to use or press CHOICES [F2] for a menu of talkfiles.
2. After Phrase Tag, enter the name of the speech phrase to play or press CHOICES [F2] for a menu of phrase tags. The phrases depend on the talkfile that was chosen. Notice that the number and text of the phrase to play appears on the Action Definition form automatically after you enter its phrase tag.

**NOTE:**

To create a new phrase tag for this action instead, press ADD-PHR [F8]. A Phrase Definition form will appear. Use this form to define your new phrase tag and press SAVE [F3]. Although you cannot record speech at this time, you can assign the phrase to your ANNOUNCE action immediately. See "Adding a New Phrase" on page 4-46.

CHAN_ASN Action

Used in the setup vector to assign Care Center vectors to CONVERSANT channels so that incoming callers can be routed to the appropriate vectors.

LUCENT TECHNOLOGIES Customer Assist Care Center - November 08, 1996

1 Cust 3 EDIT VECTOR NUMBER 36 STEPS

>Call Ue
System
System
UNIX Sy
Exit

Vector Name: _____ Vector Number: 36
Description: 5 CHAN_ASN Action Step Number 1 for vector 36

Step	Action	Comment:	CHANNEL	VECTOR	NAME
1	_____	CHAN_ASN assigns vectors to channels			
2	_____				
3	_____				
4	_____				
5	_____				
6	_____				
7	_____				
8	_____				
9	_____				
10	_____				
11	_____				
12	_____				
13	_____				
14	_____				

Please enter your comments.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 3-4. CHAN_ASN Action Form

1. Enter a comment, if you wish.
2. Move your cursor to an available line under the column marked CHANNEL, type the number of an active (in service) channel, and press **ENTER**.
3. In the column marked VECTOR, type the number of the CONVERSANT vector to associate with calls to this channel. Press **CHOICES F2** for a list.

If a specific channel is listed more than once on the CHAN_ASN form, the first occurrence will be activated.

4. Press **ENTER**.
Pause for the name of the CONVERSANT vector you chose to appear automatically under the column marked NAME.
5. Repeat steps 2 through 4 for each active channel in Care Center up to 12 channels. Use additional CHAN_ASN actions in the setup vector to assign more than 12 channels.



NOTE:

The setup vector assigns vectors to channels within Care Center only. The system will not respond to calls unless you assign Care Center to every channel you plan to use. (See *the INTUITY*

CONVERSANT System Version 6.0 Administration, 585-310-591, for more information about assigning services to channels.)

CHG_LANG Action

Allows the administrator to select the language the caller will hear. The choices of language depends on the languages that have been installed. If the CHG_LANG action is not used, the callers will hear the application in the base language. Upon reaching the CHG_LANG action, the callers will hear the application in the language chosen from this point on.

LUCENT TECHNOLOGIES Customer Assist Care Center - November 07, 1996

1 Cust 3 EDIT VECTOR NUMBER 33 STEPS

>Call Use
System
System
UNIX Sy
Exit

Vector Name: _____ Vector Number: 33
Description: _____

Step	Action	Description
1	_____	_____
2	_____	_____
3	_____	_____
4	_____	_____
5	_____	_____
6	_____	_____
7	_____	_____
8	_____	_____
9	_____	_____
10	_____	_____

5 Change Language Action, Step Number 1 for vector 33

Change language to: _____
Comment: _____

Enter the language or a variable.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 3-5. CHG_LANG Action Form

1. When at either the Create New Vector or Edit Vector screen, insert an action using CHG-KEYS **[F8]**, then CHOICES **[F2]**, and select the CHG_LANG action.
2. At the Change language to field press CHOICES **[F2]** and select either a language or a variable. If you choose a variable, the value of that variable should correspond to a language talkfile number that will be selected during the call.



NOTE:

The variable may be used if you are setting up the vector to offer a choice of languages.



CAUTION:

If the value of the variable is invalid (that is, if it is not an available option), the call will continue in the base language.

3. Enter a comment in the Comment field if you choose.

CONVERSE Action

Accepts information that the DEFINITY G3 or ECS R5 switch sends along with a call by using the DEFINITY Converse action step. To accept both items of information a DEFINITY G3 or ECS R5 switch can send with a single call, use two CONVERSE actions. If two CONVERSE actions are being used, only the SET action or the REPORT action can be placed between them. Information can include:

- A string of touch-tone digits collected through DEFINITY Call Prompting (digits)
- The caller's position in queue (qpos)
- The switch's estimate of how long a caller will wait in queue (G3V4 and DEFINITY ECS R5) (wait)
- Vector Directory Number (vdn) (which may equate to DNIS)
- Automatic Number Identification (ani) information
- Numbers (0-9), *, or #



NOTE:

The # is treated as a termination character by the CONVERSE action. It stops the collection of input from the switch.



NOTE:

To report on the value of digits that are conversed to Care Center, you may insert a REPORT action step after the CONVERSE action step. Refer to "REPORT Action" on page 3-36.



NOTE:

It is important to distinguish between the CONVERSE action, which is part of Customer Assist Care Center and receives only data passed to it by the DEFINITY G3V2 (or greater) switch, and the Converse vector step, which is part of the DEFINITY's call vectoring feature, beginning with the DEFINITY G3V2+. The DEFINITY's Converse vector step performs the actual handoff to the CONVERSANT vector.

LUCENT TECHNOLOGIES Customer Assist Care Center - November 08, 1996

EDIT VECTOR NUMBER 36 STEPS

Vector Name: _____ Vector Number: 36

Description: _____

Step	Action	Description
1	_____	
2	_____	
3	_____	
4	_____	
5	CONVERSE ACTION, STEP 1 for vector 36	
6	_____	Converse Step gathers TouchTones
7	_____	
8	_____	Number of Digits to Collect: __
9	_____	
10	_____	Load Digits into Variable: _____
11	_____	
12	_____	Place number of digits collected into: %num_dig_got
13	_____	
14	_____	Comment: _____

Enter the number followed by the Return or ENTER key.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 3-6. CONVERSE Action Form

1. After Number of Digits to Collect, enter the number of digits to expect from the DEFINITY G3 or ECS R5, up to a limit of 16. In this total, do not include the [#] key, which the DEFINITY G3 or ECS R5 automatically sends to mark the end of the digit string. The system uses the variable %num_dig_got to represent the actual number of digits collected.

NOTE:

The [#] is not included in the number of digits collected.

2. After Load Digits into Variable, name the variable to associate with the digits received from the DEFINITY vector.

NOTE:

The system assigns the value 0 (zero) to the variable %num_dig_got if it does not receive any touch tones from the DEFINITY G3 or ECS R5.

3. Enter a comment, if you wish.

Assign a variable name to each item of information to accept. Other actions can use these variables to respond to callers with announcements or other actions.

NOTE:

After a DEFINITY vector passes a call and information to a CONVERSANT vector using a Converse vector step, the CONVERSANT vector cannot invoke any action using flash-hook

signals, such as transferring a call and launching a customer callback.



NOTE:

Before using the CONVERSE action with line-side T1/E1 channels, access the Systems-Parameters Features screen on the DEFINITY G3 or ECS R5 switch and set the Converse First and Second Data Delay parameter to 1 instead of 0.



TIP:

When using the CONVERSE action, Care Center waits for in-band DTMF signals from the switch. If you are just testing this, you may use your touch-tone phone to simulate in-band DTMF signals. This allows you to fake a Converse step from the switch. For example, create the vectors you wish to test and place them in service. Dial the CONVERSANT and after the first ring or two, start pushing the touch-tone key pad with the data that would be passed from the DEFINITY. The touch tones will be viewed by the CONVERSANT as in-band DTMF signals. This helps debug vectors built in Care Center.

DATA_RTN Action

Sends information to the DEFINITY G3V2+ or ECS R5 switch. Subsequently, this information can be used to route or remove calls from queue, or to populate agents' telephone or computer displays.

The DATA_RTN action complements the CONVERSE action by providing a way to return data to a DEFINITY vector. You specify a FAC (feature access code) and a series of variables or strings to pass. The FAC then tells the DEFINITY switch that its vector is receiving DATA_RTN information from Care Center.

LUCENT TECHNOLOGIES Customer Assist Care Center - November 08, 1996

1 Custo 3 EDIT VECTOR NUMBER 36 STEPS

>Call Use
System
System
UNIX Sy
Exit

Vector Name: _____ Vector Number: 36

Description: _____

5 Data Return Action, Step Number 1 for vector 36

Step	Action
1	_____
2	_____
3	_____
4	_____
5	_____
6	_____
7	_____
8	_____
9	_____
10	_____
11	_____
12	_____
13	_____
14	_____

DATA_RTN Action returns information to switch.

Feature Access Code: _____

Data Return Segment 1: _____

Data Return Segment 2: _____

Data Return Segment 3: _____

Data Return Segment 4: _____

Data Return Segment 5: _____

Data Return Segment 6: _____

Data Return Segment 7: _____

Data Return Segment 8: _____

Comment: _____

Enter the FAC followed by the Return or ENTER key.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 3-7. DATA_RTN Action Form

1. Enter the feature access code (FAC) you want to send to the PBX prior to the value. Your entry must be the Converse Data Return code already defined on the DEFINITY G3 or ECS R5 switch.
2. On the lines marked Data Return Segment, list the values (or variables containing values), up to a combined limit of 24 characters, to return to the DEFINITY vector.

Every character in values you list on these lines counts toward the limit, including # which you may use as a delimiter.

NOTE:

When using variables to represent values, remember that the number of characters in the value, not the number of characters in the variable name, counts toward the limit.

3. Enter a comment, if you wish.

CAUTION:

Do not use  because it will erase the collected digits buffer on the DEFINITY switch.

DYNAMIC Action

Transfers call control to one of up to 10 CONVERSANT applications, depending on the value of a variable, such as VDN (vector directory number). Associate this action with a single variable name and then link three possible arguments with CONVERSANT applications to execute.

LUCENT TECHNOLOGIES Customer Assist Care Center - January 16, 1997

1 Custo 3 EDIT VECTOR NUMBER 1 STEPS

>Call Use System Vector Name: Vector Number: 1

5 DYNAMIC PORT ALLOCATION BLOCK 1 for vector 1

DYNAMIC ALLOCATION STARTS PROGRAMS FOR GIVEN VALUES

Comment: _____

Variable: _____

VALUE	PROGRAM	ARG1	ARG2	ARG3
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Please enter your comments.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 3-8. DYNAMIC Action Form

1. Enter a comment, if you wish.
2. Enter the name of the variable containing the value that will determine which CONVERSANT application to execute. Press CHOICES **[F2]** for a list.
3. Under the column marked VALUE, enter a possible value for the variable you chose.

If a specific value is repeated in the VALUE column, the first occurrence will be used during the call.
4. Under the column marked PROGRAM, enter the name of the CONVERSANT application to execute if the actual value of the variable matches the value indicated on the left. Press CHOICES **[F2]** for a list.
5. Use remaining columns to specify up to three arguments (ARG1, ARG2, ARG3) to pass to the executed program. Valid arguments include numbers, text strings, or variables. For example, Care Center could pass a caller's ANI along with the caller's collected digit account number to a fax response application (outside of Care Center) on the CONVERSANT.
6. Repeat steps 3 through 5 for each possible variable value.

 NOTE:

After removing a CONVERSANT application from your hard-disk drive or restoring your CONVERSANT vector to a new hard-disk drive, check that the DYNAMIC action's PROGRAM column still lists valid CONVERSANT applications on the hard-disk drive.

DYN_ANNOUN Action

Plays one of many different messages to a single caller. A Converse vector step in a DEFINITY vector can send one or two items of information about a call that a CONVERSANT vector can use to select an announcement to play.

Within a DEFINITY vector, for example, you might use Call Prompting to ask callers if they would rather hear an informational message or speak with an agent. Your DEFINITY vector could then deliver callers who choose the announcement to a CONVERSANT channel, along with the number they dialed. The platform management package, in turn, can use this value to determine which message to play. When a vector containing the dynamic announcement ends, the CONVERSANT channel drops off and vector processing resumes in the DEFINITY vector.

DEFINITY vectors can also place calls in an ACD (Automatic Call Distribution) queue before connecting them to Care Center. This allows the DEFINITY vector to interrupt dynamic announcements and regain call control when agents become available.

 NOTE:

The DEFINITY G3 or ECS R5 can direct only one caller at a time to a CONVERSANT channel when the Converse step is used. Call centers wishing to speak forced first messages to many callers should hard allocate several CONVERSANT channels to play standard announcements. Simple call-volume calculations can help you determine the call handling capacity of dynamically allocated ports.

 CAUTION:

The DYN_ANNOUN action, during the call, cannot be interrupted by the caller using Speech Recognition or Dial Pulse Recognition.

 CAUTION:

*The DYN_ANNOUN action CAN be interrupted using a touch tone. If a DYN_ANNOUN action is interrupted with a touch tone, that speech—plus any speech later in the vector—will be skipped, and that tone will be used as input in the next action that collects input, such as a MENU, GET_DIALP, GET_SPCH, or GET_DIGT action. For example, if a vector had two DYN_ANNOUN actions and a MENU action (described later in this chapter) and if the caller presses a touch-tone key while listening to the first DYN_ANNOUN, Care Center will skip the first DYN_ANNOUN action AND the second DYN_*

ANNOU action AND the prompt used in the MENU action. Care Center will use the input to the touch-tone prompt as input for the MENU action.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - January 07, 1997
1 Custo 3 EDIT VECTOR NUMBER 55 STEPS
>Call Ue
System
System
UNIX Sy
Exit
Vector Name: _____ Vector Number: 55
Description: _____

Step  Action          Description
1    _____
2    _____
3    _____
4    _____
5    _____
6    _____
7    _____
8    _____
9    _____
10   _____
11   _____
12   _____
13   _____
14   _____

5 DYN_ANNOUNCEMENT Action Step Number 1 for vector 55
DYNAMIC ANNOUNCE Action step speaks a phrase to caller
Talkfile Number: 6104          Allow Interrupt: yes
Phrase Number: _____

Enter the phrase number follow by the Return or ENTER key.
HELP CHOICES CLOSE CANCEL REFRESH

```

Figure 3-9. DYN_ANNOU Action Form

1. In the Phrase Number field, select the variable that contains the number of the phrase to play. Press CHOICES **F2** for a list.

You may also enter a hard-coded number corresponding to a phrase number in any language that is currently loaded on the system.



TIP:

Phrases are referenced by their Phrase Number. If you assign this number as a value of a variable (such as `%data1`) you can speak these with the DYN_ANNOU action for dynamic announcements. For example, callers can call in to order items from a catalog where each item has a four-digit item number. You could create a phrase that says the item name whose phrase number is the same as the item number for each item in the catalog. This way, the system can play back the item name as a confirmation that the callers have entered the number of the item they want.

EWT Action

Uses and converts the switch's estimate of how long a caller must wait for an agent. Available only for use with the DEFINITY G3V4 or ECS R5, the EWT action provides the option to increase or decrease the switch's estimate by a percentage you specify, round the result up, down, or to the nearest whole

number, and at your option, convert it from seconds to minutes. You can use the SET action after the EWT action to perform additional calculations, such as to announce the wait time in minutes and seconds. See Figure 3-11.

Use the CONVERSE action in your CONVERSANT vector to acquire the switch's wait time estimate in seconds. After using the EWT action to convert this estimate to minutes, use the SET action to convert it further, or use the ANNOUNCE and SPEAK_NUM actions to communicate it to the caller.

Use the Estimated Wait Time template, described on page 4-19, for help building your announcements. Another version of this template, the Announce Queue Position template, can speak a caller's relative position in queue (see page 4-19). Estimated Wait Time and Announce Queue Position templates, like all those supplied with Customer Assist Care Center, automatically create CONVERSANT vectors to perform important call handling tasks.

LUCENT TECHNOLOGIES Customer Assist Care Center - November 11, 1996

1 Cust **3 EDIT VECTOR NUMBER 37 STEPS**

>Call Use
System
System
UNIX Sy
Exit

Vector Name: _____ Vector Number: 37
Description: _____

Step	Action	Description
1		
2		
3		
4		
5		
6		

5 EWT ACTION STEP 1 for vector 37

ESTIMATED WAIT TIME IN QUEUE ACTION

EWT Input: %data1 Calculated Output: %data2
 Weighting Index: 100%
 Resolution: Minutes Rounding: Nearest
 Comment: _____

Enter the variable that receives estimated wait time.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 3-10. EWT Action Form

1. After EWT Input, enter the name of the variable you used with CONVERSE action to acquire the caller's estimated wait time. Press CHOICES **[F2]** for a list.
2. After Calculated Output, enter the name of the variable to represent the recalculated wait time. Press CHOICES **[F2]** for a list.
3. After Weighting Index, enter the percentage of the switch's estimate to use; for example, to double the wait time estimate, specify 200%. (The minimum option for Weighting Index is 10% and the maximum is 300%.)

4. After Resolution, use the default setting Minutes to convert the estimate to minutes; otherwise, enter Seconds . Press CHOICES **[F2]** to toggle between responses.
5. After Rounding, use the default setting Nearest to round the estimate to the nearest minute or the nearest 10 seconds, if Resolution has been set to Seconds. Other options include rounding Up or Down to the nearest minutes or the nearest 10 seconds. Press CHOICES **[F2]** to toggle among responses.
6. Optionally, enter a comment.

➤ NOTE:

The following screen shows an alternate method of calculating EWT. The vector shown captures the EWT from the DEFINITY, weights the value in seconds by 150 percent, and converts it into minutes and seconds that can be spoken back to the caller.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - February 14, 1997
1 Custo 4 EDIT VECTOR NUMBER 12 STEPS
>Call Ue
System Vector Name: RC-EWT Calc Vector Number: 12
System Description: Rock Coast EWT Calculation: Mins & Secs
UNIX Sy
Exit

Step Action Description
1 CONVERSE collect 5 digits into %data1
2 EWT calculates the delay from %data1 into %ewt
3 SET %minutes = %minutes = %ewt
4 SET %minutes = %minutes / 60
5 SET %temporary = %temporary = %minutes
6 SET %temporary = %temporary * 60
7 SET %seconds = %seconds = %ewt
8 SET %seconds = %seconds - %temporary
9 ANNOUNCE Your estimated wait time is...
10 SPEAK_NUM in %minutes as Number
11 ANNOUNCE ...minutes and ...
12 SPEAK_NUM in %seconds as Number
13 ANNOUNCE ...seconds.
14

Enter the vector name.
HELP INSERT REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS

```

Figure 3-11. Converting DEFINITY EWT into Minutes and Seconds

EXECUTE Action

Unconditionally transfers control of a call to a CONVERSANT application.

LUCENT TECHNOLOGIES Customer Assist Care Center - November 11, 1996

1 Custo 3 EDIT VECTOR NUMBER 37 STEPS

>Call Use
System
System
UNIX Sy
Exit

Vector Name: Vector Number: 37

D 5 EXECUTE ACTION 1 for vector 37

S EXECUTE ACTION STARTS A NEW PROGRAM

Application: Write Call Data Record Immed.:yes

Argument 1: _____

Argument 2: _____

Argument 3: _____

Argument 4: _____

Argument 5: _____

Argument 6: _____

Argument 7: _____

Argument 8: _____

Argument 9: _____

Argument 10: _____

Return Value: %return_vlu

Comment: _____

Enter the application name follow by the Return or ENTER key.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 3-12. EXECUTE Action Form

1. After Application, enter the name of the CONVERSANT application to execute. Press CHOICES **F2** for a list.
2. Specify up to ten arguments to pass to the executed application. Numbers, text strings, or variables can represent valid arguments, such as collecting a caller's phone number in a variable or another number that can identify the caller.

The system automatically uses the variable *%return_vlu* to represent any data returned by the CONVERSANT in the event of an error.

3. Enter a comment, if you wish.

➡ NOTE:

You can execute any other CONVERSANT application anywhere in a call vector by using the EXECUTE action. Likewise, any other CONVERSANT application can launch the Care Center by referring to its program name, "ccc". For example, you can use the EXECUTE action to launch a Fax Back application.

GET_DIALP Action

Gathers dialed digits from the caller, such as numbers dialed from a rotary telephone. Dial Pulse Recognition is highly dependent on the quality of phone lines used for the call and the accuracy can vary from call to call. Dial Pulse Recognition recognizes only digits between 0 to 9, and it works only with SSP cards (not with SP cards).

In general, try to use the most restrictive grammar, or valid input, that can accept the desired input. That is because different grammars have different accuracy. Digits that are further from each other results in better accuracy. For example, instead of offering callers a menu to select from using 1, 2, and 3; use a Dial Pulse Recognition menu to have callers select their options using 1, 3, and 5. The GET_DIALP action is normally used to collect a long number because it can collect the number in pieces and then combine them. Also, GET_DIALP is used when specific grammars need to be used to provide more accurate recognition. This occurs when the input follows a pattern. For example, an input value of 1,3 and 5.

➤ NOTE:

When using dial pulse recognition the CONVERSANT tends to recognize higher numbers better than lower numbers.

LUCENT TECHNOLOGIES Customer Assist Care Center - February 11, 1997

1 Custo 4 EDIT VECTOR NUMBER 12 STEPS

6 GET_DIALP ACTION, STEP 13 for vector 12

Get Dial Pulse Step gathers Dialed Digit(s) from caller

Comment: capturing data from callers

Consolidate responses into variable: %ci_value

Place number of digits collected into: %num_dig_got

Talkfile: 6104 US English

Phrase Tag

Press "1" to hold, "2" for fax, or "3" for message

Number 1009

5 Choices

- 1 digit:2,5,8
- 1 digit:1,4,7,0
- > 1 digit:1-3
- 1 digit:1-5
- 1-3 digits:0-9
- 1-5 digits:0-9
- Touch Tones

Confirmation: None Time limit per response: 6

ENTER CANCEL

Figure 3-13. GET_DIALP Valid Input Choices

1. In the Comment field, enter information if you wish and press **ENTER**.

2. In the Consolidate responses into variable field, use CHOICES **F2** to select a variable to hold the input that is dialed following the prompt. Press **ENTER**.
3. At the Talkfile field use CHOICES **F2** to choose the Vector Phrase talkfile to use. Press **ENTER**.
4. In the Phrase Tag field, enter the short text phrase (called a Phrase Tag) that identifies the speech phrase desired. For previously recorded speech, press CHOICES **F2**. Select the phrase and press **ENTER**.



NOTE:

For information on recording phrases see “Administration of Phrases for Vectors, Mailboxes, and Standard Speech” on page 4-42.

5. In the Valid Input field, use CHOICES **F2** to choose what type of input to collect. For example, select 1 digit: 1-3 in the Valid Input field if Care Center should listen for 1, 2, or 3 in response to a phrase. See Figure 3-13. After selecting the type of input press **ENTER**.
6. In the Confirmation field, use CHOICES **F2** to choose Overall, which asks for confirmation after all input is gathered, Field, which asks for confirmation after each field, or None, which will not ask for confirmation.
7. In the Time limit per response field, enter the time the system will wait for caller input in seconds.



TIP:

When collecting a large number of digits via dial pulse recognition (for example, an international phone number), you can break the collection up into multiple prompts to increase the accuracy (for example, country code first, then area code, then phone number). To increase the accuracy, use the most restrictive grammar, or valid input, that can be used to collect the broken down input options to increase the accuracy.

GET_DIGT Action

Accepts touch-tone input from callers. For example, by using GET_DIGT with ANNOUNCE, you can prompt callers to choose from a menu of options in your CONVERSANT vector. Choose a variable to hold the caller's response. Other actions can use this variable to make call handling decisions.

Step	Action	Description
1		
2		
3		
4		
5	GET_DIGT ACTION STEP 1 for vector 55	
6		
7		Get Digits Step gathers TouchTones from caller
8		
9		Number of Digits to Collect: __
10		
11		Load Digits into Variable: __
12		Place number of digits collected into: %num_dig_got
13		
14		Comment: __

Enter the number follow by the Return or ENTER key.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 3-14. GET_DIGT Action Form

1. After Number of Digits to Collect, enter the maximum number of digits the caller can enter, up to a limit of 24.

Every touch-tone key, including the **#** key, which callers can press to indicate that an entry is complete, counts toward this total. The variable `%num_dig_got` automatically represents the number of touch tones actually entered, including the **#** key.

NOTE:

The **#** key is used as a terminator. Whenever this key is entered, it indicates to the system that the caller input is complete. This helps eliminate the interdigit timeout.

2. After Load Digits into Variable, name the variable to associate with the caller's touch tones. Press CHOICES **F2** for a list. The system does not include the **#** key in this variable's value.

NOTE:

The system assigns the value 0 (zero) to the variable `%num_dig_got` if the caller does not enter any touch tones.

3. Enter a comment, if you wish.

GET_SPCH Action

Gathers spoken digits from callers. This action allows caller input using speech recognition. If the optional Care Center speech recognition package and its custom grammars are loaded, and if the Lucent WholeWord Speech Recognition package has been purchased and is loaded, then GET_SPCH works with any supported language in the Care Center package up to a limit of two per any one system. However, it is assumed that administrators and agents will have touch-tone phones. Therefore, speech recognition is not available for Speech Administration or for transcription of messages.

At most two languages can be enabled for WholeWord Speech Recognition with Care Center due to the size of the speech models for the languages. If Speech Recognition is enabled for German, UK English or Japanese, no other languages can be enabled on the same system. This is because each of them takes more than half the space on the SSP card in the CONVERSANT. Standard French, Brazilian Portuguese, Dutch and Canadian French Whole Word Speech Recognition are only supported on SSP cards.

NOTE:

Multiple SSP boards can increase the number of ports that can use Speech Recognition but it will not increase the number of languages that can be Speech Recognition enabled.

Care Center adds a few more custom grammars for each of the enabled languages. These grammars allows the collection of input types that are not available with the standard Lucent WholeWord Speech Recognition packages. The custom grammars added are:

- Variable-length numbers of 1 to 24 digits long
- Variable-length numbers of 1 to 8 digits long
- Variable-length numbers of 4 to 14 digits long
- Variable-length numbers of 8 to 16 digits long
- Variable-length numbers of 1 to 2 digits long and value of 0 to 31

NOTE:

When using speech recognition in the GET_SPCH action, you can ask for caller confirmation after input is collected for each part or after collecting all the input. For example, to collect a phone number from the caller, the GET_SPCH action can prompt the caller for the area code and then the subscriber number. It can ask for confirmation for area code and subscriber separately or after collecting the entire phone number. The GET_DIALP action has the same capability.

LUCENT TECHNOLOGIES Customer Assist Care Center - February 11, 1997

1 Custo 4 EDIT VECTOR NUMBER 12 STEPS

6 GET_SPCH ACTION, STEP 13 for vector 12

Get Speech Step gathers Spoken Digit(s) from caller

Comment: capture caller input

Consolidate responses into variable: %ci_value

Place number of digits collected into: %num

Talkfile: 6104 US English

Phrase Tag

Press 1 to hold, 2 for fax, or 3 for message

Confirmation: None Time limit per respo

Choices
yes-no 8 digits-exact
> 1 digit:1-3 9 digits-exact
1 digit:1-5 10 digits-exact
1 digit:0-9 1-3 digits:0-9
1 digit:0-31 1-5 digits:0-9
2 digits-exact 1-8 digits:0-9
3 digits-exact 1-24 digits:0-9
4 digits-exact 4-14 digits:0-9
5 digits-exact 8-16 digits:0-9
6 digits-exact Touch Tones
7 digits-exact

ENTER CANCEL

Figure 3-15. GET_SPCH Valid Input Options

Steps to set up the GET_SPCH action resemble those in GET_DIALP.

1. In the Comment field, enter information if you wish and press (ENTER).
2. In the Consolidate responses into variable field, use CHOICES [F2] to select a variable to hold the input that is spoken following the prompt. Press (ENTER).
3. At the Talkfile field, use CHOICES [F2] to choose the Vector Phrase talkfile to use. Press (ENTER).
4. In the Phrase Tag field, enter the Phrase Tag of the recorded speech you wish to use. For previously recorded speech, press CHOICES [F2]. Select the phrase and press (ENTER).



NOTE:

For information on recording phrases see "Administration of Phrases for Vectors, Mailboxes, and Standard Speech" on page 4-42.

5. In the Valid Input field use CHOICES [F2] to choose what type of input to collect such as 1 digit:1-3 meaning that one digit will be collected between the range of 1 and 3. After selecting the type of input, press (ENTER). See Figure 3-15.



TIP:

In general, try to use the most restrictive grammar, or valid input options, that can accept the desired input because different grammars have different accuracy. Fixed length grammars have the best accuracy. If the

input is shorter, the accuracy improves. The accuracy is also affected by the language used. U.S. English has the best accuracy at over 99% per digit. The accuracy of other languages is somewhere around 95-98% per digit. The GET_SPCH action is normally used to collect a long number because it can collect the number in pieces and then combine them. Also, GET_SPCH is used when specific grammars provide more accurate recognition. This occurs when the input follows a pattern. For example, the input value of 1 to 5 using 1 digit: 1-5.

 NOTE:

If the Valid Input of yes-no type is used, a yes input will result in a 1 value and a no input will result in a 0 value. During the confirmation of a yes-no input, the caller will hear a yes or no phrase played back.

 NOTE:

If the phrase used in the GET_SPCH action prompts the caller to press "1" or "2," and the Valid Input field is set at 1:1-3 and the caller chooses 3, the caller will fall through this GET_SPCH action step and continue on in the current vector. If this condition is probable, then place error checking action steps, such as examining the input value or the value of %num_dig_got to ensure all digits were captured, after the GET_SPCH action in the current vector to catch the number outside of the range.

6. In the Confirmation field use CHOICES F2 to choose Overall, which asks for confirmation after all input is gathered, Field, which asks for confirmation after each field, or None, which will not ask for confirmation.
7. In the Time limit per response field enter the time the system will wait for caller input in seconds.



TIP:

If collecting a large number of digits via speech recognition (i.e. an international phone number, etc.), you can break the collection up into multiple prompts to increase the accuracy (i.e. country code first, then area code, then phone number, etc.). Also, use the most restrictive grammar, or valid input, that can be used to collect the broken down input options to increase the accuracy.

GLOBAL Action

Must appear in the setup vector to initialize Customer Assist Care Center variables and establish global parameters.

There are no administrable fields in this action.

The screenshot shows a window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - January 22, 1997". Inside, there's a menu on the left with options: "1 Custo", ">Call Ue", "System", "System", "UNIX Sy", and "Exit". The main area is titled "3 EDIT VECTOR NUMBER 55 STEPS". It contains fields for "Vector Name:" and "Vector Number: 55", and a "Description:" field. Below these is a table with columns "Step", "Action", and "Description". The table has 14 rows. Row 5 is highlighted and contains the text "5 GLOBAL Action Step". A text box next to row 5 contains the following text: "GLOBAL Action Step Sets up global variables for call. There are no administerable fields in this form. GLOBAL is only available from the SETUP template: OK". At the bottom of the window are buttons: "HELP", "CLOSE", "CANCEL", and "REFRESH".

Step	Action	Description
1		
2		
3		
4		
5	GLOBAL Action Step	GLOBAL Action Step Sets up global variables for call. There are no administerable fields in this form. GLOBAL is only available from the SETUP template: OK
6		
7		
8		
9		
10		
11		
12		
13		
14		

Figure 3-16. GLOBAL Action Form

GOTO Action

Moves call control to another vector or to another step in the current vector, either unconditionally or if a specific condition is met. Comparisons consist of a single variable, value, and a relational operator (=, !=, <, <=, >, or >=). The GOTO action evaluates both arguments in a comparison as strings if either argument is 10 or more characters long. The resulting comparison is alphabetic, not numeric.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 10, 1996

1 Custo 4 EDIT VECTOR NUMBER 27 STEPS

>Call Use Vector Name: EWT Template Vector Number: 27
 System Description: Calculate & speak delay minutes in queue
 System
 UNIX Sy
 Exit

Step	Action	Description
1	EWT	calculates the delay from %data1 into %data2
2	GOTO	Step 8 if %data2 = 1
3	GOTO	Step 10 if %data2 > 20

3 GOTO Action Step Number 2 for vector 27

GOTO compares a variable with a value and routes to a vector or step.

GOTO Step 8 ANNOUNCE

IF variable %data2 = 1

Comment: If there is a short wait.

14

Enter "Vector" or "Step" followed by the Return or ENTER key.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 3-17. GOTO Action Form

1. After GOTO, use the default value Vector to go to another vector, or press CHOICES [F2] and select Step to go to another action in the current vector.

If you enter a vector number and a CONVERSANT vector with this number already exists, its name appears automatically. If not, no text appears.

**NOTE:**

If you enter a step number and an action has already been defined for this step, the action name will automatically appear. If not, no text appears.

2. After If variable, enter a variable name.
3. Press [ENTER] to advance to the next position in the comparison and enter a relational operator. Choices include:

"equal to"	=
"not equal to"	!=
"less than"	<
"less than or equal to"	<=
"greater than"	>
"greater than or equal to"	>=

4. Press [ENTER] to advance to the last position in the comparison and enter a value or variable name.

5. Optionally, enter a comment.

For unconditional navigation, enter only the step or vector destination. Leave comparison positions blank.

**CAUTION:**

Be sure to create CONVERSANT vectors for vector numbers you enter here before you place the new vectors into service. If not, when auditing the vector database, internal vectors will alarm the system and fail an integrity check.

**CAUTION:**

Inserting or removing actions in a vector that contains a GOTO step could result in the GOTO action routing to the wrong step.

HANG_ACT Action

Identifies a CONVERSANT vector to launch if the caller leaves the call prematurely while the caller is still in vectoring in Care Center.

If the caller is not in vectoring (such as when using MSG_DROP), the HANG_ACT action is no longer valid. If, after the caller leaves a message using MSG_DROP and you want the HANG_ACT action to continue monitoring the call, insert another HANG_ACT action step in the vector and “jump to” that step after MSG_DROP is finished. A caller activates the HANG_ACT action by exiting at any point in a CONVERSANT vector after the HANG_ACT action and before the QUIT, DATA_RTN, TRANSFER, EXECUTE, DYNAMIC, SPCH_ADMN, MSG_DROP, or TRANSRIBE actions.

**NOTE:**

If you want the HANG_ACT action to remain in effect after a CHG_LANG action, insert another HANG_ACT action after the CHG_LANG action.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - December 10, 1996
1 Custo 4 EDIT VECTOR NUMBER 1 STEPS
>Call Use
System Vector Name: Main Menu Vector Number: 1
System Description: Testing menu
UNIX Sy
Exit
Step Action Description
1 HANG_ACT end with vector 11 (Hang Act)
2 MENU Main Menu Speech Prompt
3 REPORT on %ci_value
5 HANG_ACT Action Step Number 1 for vector 1

HANG_ACT Action Step specifies a vector number to go to after a HANGUP.
On HANGUP go to Vector Number: 11 Name: Hang Act

Comment: post processing on hang up

9|Morni 13
10|Afte 14

Enter the vector name follow by the Return or ENTER key.
HELP CHOICES CLOSE ENTER CANCEL REFRESH

```

Figure 3-18. HANG_ACT Action Form

1. Enter the number of the vector to launch after the caller disconnects.
If a CONVERSANT vector with this number already exists, its name appears automatically. To select from a list, press CHOICES [F2]. If not, no text appears.
2. Enter a comment, if you wish.

LOOK_UP Action

Retrieves a record from a local database table by entering the table with the value of a specified variable and comparing it to values in the index field for the table.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - December 10, 1996
1 Cust 4 EDIT VECTOR NUMBER 35 STEPS
>Call Use
System Vector Name: Routing Templ. Vector Number: 35
System Description: Gather ANI from PBX & route call.
UNIX Sy
Exit Step Action Description
3 LOOK_UP Table Action, Step Number 2 for vector 35

LOOK_UP Action looks up values in a database table.

Input Fields
Routing table:
Look-up field: %ci_value
Return Fields
Number of Matches found: %matched
Data field 1: %data1
Data field 2: %data2

Comment: look up value and return data.
Note: The LOOK_UP action requires that the table be populated.

Enter the routing table name followed by the Return or ENTER key.
HELP CHOICES CLOSE ENTER CANCEL REFRESH

```

Figure 3-19. LOOK_UP Action Form

1. After Routing Table, enter the name of the database table you want to search or press CHOICES [F2] to select from a list.
2. After Look-up Field, name the variable containing the key value, or the primary search value, you want to use in your search or press CHOICES [F2] to select from a list.
3. After Number of Matches Found, name a variable to hold the number of records in the table, which have the value of the variable in their index field. Press CHOICES [F2] for a list.

⇒ NOTE:

For intelligent routing applications, such as routing a phone number to a certain greeting or department, this value must never be greater than 1 because the lookup field should be unique.

4. After Data field 1, name a variable to hold the Data field 1 value for the first record in the table for which value of Lookup field variable matches the value of the index field in the record. Press CHOICES [F2] for a list.

5. After Data field 2, name a variable to hold the Data Field 2 value for the first record in the table for which value of Lookup Field variable matches the value of the index field in the record. Press CHOICES **F2** for a list.
6. Enter a comment, if you wish.

⇒ NOTE:

If a LOOK_UP action is used to search a single database table using the same key value on a single call, the LOOK_UP action searches for the next instance of that value. If the result is not the desired result, another LOOK_UP action must be used to find the next occurrence. If you use the action to look up a different value, the search will start from the beginning of the table. It does not retrieve the same record twice.

MENU Action

Prompts a caller for input and moves call control to one of up to 13 CONVERSANT vectors, depending on the value of the input.

You can configure the MENU action to respond differently to callers who delay, enter too few digits, or enter values not on a list of acceptable values. Callers may have more than one attempt to enter a valid value. The MENU action can accept TouchTone, Speech Recognition or Dial Pulse Recognition input.

MENU simplifies the design of bulletin boards and automated attendants.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - December 10, 1996
5 MENU Action Step Number 2 for vector 1
NORMAL INPUT :
Talkfile: 6104      US English
Prompt Phrase: Main Menu Speech Prompt
Number of digits to collect : Min 1 Max 2
Time to wait for input (sec): 1st digit 6 Next digit(s) 4
Place in Variables :
Input %ci_value    Output %data1
Valid Input        Output Value    GOTO Vector    Vector Name
1                   999              25             Dial_Pulse MB
2                   999              3              changeLanguage
3                   999              1              Main Menu
4                   999              5              IVR apps
5                   999              6              Speech Admin
6                   999              8              Scheduling
7                   999              14             Get Speech
8                   999              12             PassParameters
9                   999              2              MB Actions
99                  999              15             quit
Confirm Input No
Enter the talkfile.
HELP CHOICES CLOSE PREUPAGE NEXTPAGE CANCEL REFRESH ADD-PHR

```

Figure 3-20. MENU Action Form 1


```

LUCENT TECHNOLOGIES Customer Assist Care Center - January 23, 1997
5 MENU Action Step Number 1 for vector 2

SPECIAL CASES :
  Caller's input not on list :
    Speak Phrase : _____
    Max. number of tries : 3
    Output Value : _____ GOTO Vector : CONT

  Caller did not enter the 1st digit within the time allowed :
    Speak Phrase : _____
    Max. number of tries : 3
    Output Value : _____ GOTO Vector : CONT

  Caller did not enter the minimum number of digits required :
    Speak Phrase : _____
    Max. number of tries : 3
    Output Value : _____ GOTO Vector : CONT

  Caller has no more tries to enter valid input :
    Speak Phrase : _____

Enter the phrase tag for input not on list above.
HELP CHOICES CLOSE PREV-FRM NEXT-FRM CANCEL REFRESH ADD-PHR

```

Figure 3-21. MENU Action Form 2

1. Once in the Talkfile field press CHOICES **[F2]** for a list of Vector phrase talkfile numbers for available languages. Choose the desired language and press **(ENTER)**. The selected language will show up in the adjacent field. This adjacent field is not administrable.
2. Optionally, after Prompt, enter the name of an existing speech phrase to play or press CHOICES **[F2]** for a list. To create a new phrase tag for this action instead, first press ADD-PHR **[F8]**. This phrase is the first prompt for input that callers hear.
3. After Min, enter the minimum number of digits to accept from a caller. If a caller delays, the system can reprompt the caller for the entire entry.

⇒ NOTE:

Each caller input using touch tone, speech recognition and dial pulse recognition (including the **[#]** key for touch-tone callers), which callers can enter to indicate that an entry is complete, counts toward this total.

4. After Max, enter the maximum number of digits to accept. After the system has collected this number of digits, it stops waiting for additional input.

⇒ NOTE:

Each caller input using touch tone, speech recognition and dial pulse recognition (including the **[#]** key for touch-tone callers), which callers can enter to indicate that an entry is complete, counts toward this total.

5. After `1st digit`, enter the maximum number of seconds to wait for the first digit of a caller's response. This parameter is often called the "initial timeout." Exceeding this time limit corresponds to the second special case in step 13: "Caller did not enter the 1st digit within the time allowed."
6. After `Next digit(s)`, enter the maximum number of seconds to wait for each subsequent digit of a multidigit response. This parameter is often called the "interdigit timeout." Exceeding this time limit before entering the minimum number of digits required corresponds to the third special case in step 13: "Caller did not enter the minimum number of digits required." However, if a caller exceeds this time limit after entering the minimum number of digits required, the system considers the entry complete.
7. Optionally, after `Input`, use the default variable `%ci_value` to hold the caller's input, or press CHOICES  and choose a different variable. Other vectors can use this variable's value to make call handling decisions. The system does not include the  key in this variable's value.
8. Optionally, after `Output`, use the default variable `%data1` to hold any output value you want to associate with the caller's input, or press CHOICES  and choose a different variable. Other vectors can use this variable's value to make call handling decisions. For example:
 - To create an automated attendant, you can assign telephone extensions to the output variable and populate the `GOTO` Vector field, described later, with the number of a CONVERSANT vector that uses the `TRANSFER` or `DATA_RTN` action to transfer callers.
 - To create a bulletin board, you can assign phrase numbers to the output variable, follow the `MENU` action in your vector with a `DYN_ANNOUN` action, and enter **CONT** (or no entry) in the `GOTO` Vector field to execute the next action in the current vector.
9. Optionally, in the column marked `Valid Input`, enter up to ten acceptable values. Most common entries will include the:
 - Standard digits **0** to **9**.
 - Touch-tone symbol ***** (star).
 - Wild-card character, **n**, representing any single standard digit. For example, **nn** represents any 2-digit number.
 - Repeat character **r**. For example, **123r** represents "123," "1233," "12333," etc.
 - Quit character **q**. For example, **123q** represents any entry, up to the maximum allowable length, that begins with the digits "123."

**TIP:**

Use the pattern matching feature in the `MENU` action and `SWITCH` action to do input validation. For example, specify "81nn" to allow only caller input that begins with "81" and ends with two digits as valid input.



NOTE:

Refer to your Script Builder documentation for more information about using n, r, and q and other special characters.

10. Optionally, associate an output value with every value in the corresponding **Valid Input** column. The **MENU** action assigns an output value to the output variable when a caller's entry matches a valid input value. If the caller's entry matches more than one valid input value, the **MENU** action uses the output value associated with the first match in the column.
11. Optionally, after **GOTO Vector**, enter the number of a **CONVERSANT** vector to activate if the caller's input matches a value in the corresponding **Input Value** column. Enter **CONT** (or no entry) instead of a vector number to execute the next action in the current vector.

If a **CONVERSANT** vector with this number already exists, its name appears automatically. If no **CONVERSANT** vector exists, no text appears.



CAUTION:

*Be sure to create **CONVERSANT** vectors for vector numbers you enter here before you place the new vectors into service. If not, when auditing the vector database, internal vectors will alarm the system and fail an integrity check.*

12. At the **Confirm Input** field, enter **Yes** to ask the caller to confirm the input or **No** for no confirmation.
13. Press **NEXTPAGE** **[F5]** and perform steps 14 through 17 for each of the first three "special cases."
 - **Caller's input not on list:** The caller's entry is not represented in the **Valid Input** column.
 - **Caller did not enter the 1st digit within the time allowed:** The caller did not respond to the prompt for input within the time allowed by the first digit parameter.
 - **Caller did not enter the minimum number of digits required:** The caller exceeded the interdigit time limit represented by the **Next digit(s)** parameter before entering the minimum number of digits required.
14. Optionally, after **Speak Phrase**, enter the name of an existing speech phrase to play or press **CHOICES** **[F2]** for a list. To create a new phrase tag for this action's special case instead, first press **ADD-PHR** **[F8]**.



NOTE:

After you use the **ADD-PHR** function to create a new phrase tag for the **MENU** action, the system returns your cursor to the beginning of the first page of the Action Definition form. Press **NEXTPAGE** **[F5]** to return to your previous location.

15. After Max. number of tries, use the default value or enter a different limit for the number of invalid entries that invokes this special case.
16. Optionally, after Output Value, enter the value to assign to the output variable when a caller exceeds the maximum number of tries for this special case.
17. After GOTO Vector, enter the number of the CONVERSANT vector to activate if the caller exceeds the maximum number of tries for this special case. Enter **CONT** or no entry instead of a vector number to execute the next action in the current vector.
18. For the last instance of Speak Phrase, select a phrase to play when the caller exceeds the maximum number of tries for any of the three special cases. You can enter the name of an existing speech phrase to play or press CHOICES **[F2]** for a list. To create a new phrase tag for this action's special case instead, first press ADD-PHR **[F8]**. After callers hear this phrase, vector processes proceeds to the vector associated with their special case, or continues in the current vector as defined.

MSG_DROP Action

Sends the caller to a mailbox you previously created at the Mailbox Administration menu.

The screenshot shows a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - January 22, 1997". On the left is a menu with options: "1 Custo", ">Call Use", "System", "System", "UNIX Sy", and "Exit". The main area is titled "EDIT VECTOR NUMBER 55 STEPS". It contains fields for "Vector Name:", "Vector Number: 55", and "Description:". Below these is a table with columns "Step", "Action", and "Description". The table has one row: "5", "Message Drop Action, Step Number 1 for vector 55", and "MSG_DROP Action saves a multi-part message." Below the table are fields for "Message Drop in mailbox:", "Optional arguments" (with sub-fields "Argument A:", "Argument B:", and "Argument C:"), "After MSG_DROP", "Jump to Vector :", and "Comment:". At the bottom, a prompt says "Enter the mailbox number or a variable followed by the Return or ENTER key." and there are buttons for "HELP", "CHOICES", "CLOSE", "ENTER", "CANCEL", and "REFRESH".

Step	Action	Description
5	Message Drop Action, Step Number 1 for vector 55	MSG_DROP Action saves a multi-part message.

Figure 3-22. MSG_DROP Action Form

1. After Message Drop in mailbox, enter the number of the mailbox to accept calls

or

Press CHOICES **F2** to select from a list of valid mailboxes.

2. If a value (s) is to be passed to the target mailbox as an argument, enter in a valid variable name in argument fields A, B, or C.

or

Press CHOICES **F2** to select from a list of variables. Up to three fields can be defined. Optionally, enter a value in each field.



NOTE:

A variable must be assigned a value before the MSG_DROP action can use it to decide which mailbox to activate. You may use the CONVERSE, SET, MENU, GET_SPCH, GET_DIALP, or GET_DIGT actions to assign values to variable.

Argument fields A, B, or C, will be used by a callback messaging mailbox only if arguments types A, B, or C are selected at the Data Configuration form defined in the target mailbox. Argument field A in the MSG_DROP action is associated with Argument A in the Data Configuration form of a mailbox, etc.

3. After Jump to Vector, enter the number of the CONVERSANT vector to activate after the caller leaves a message.
4. Optionally, enter a comment.

OFF_HOOK Action

Used in the setup vector to take a voice channel off hook and answer a call.

Enter a comment, if you wish.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - December 10, 1996
1 Custo 4 EDIT VECTOR NUMBER 0 STEPS
>Call Ue Vector Name: setup Vector Number: 0
System Description: system setup vector
System
UNIX Sy
Exit

Step Action Description
1 GLOBAL global declarations
2 OFF_HOOK answer the call
3 CHAN_ASN assign channels to vectors
4 CHAN_ASN assi 5 OFF_HOOK Action Step Number 2 for vector 0
5 CHAN_ASN assi OFF_HOOK Action Step Answers Call
6 CHAN_ASN assi
7 CHAN_ASN assi
8 CHAN_ASN assi
9 CHAN_ASN assi Comment: answer the call
10 CHAN_ASN assi
11 QUIT if channel is not assigned.
12
13
14

Please enter your comments.
HELP CLOSE CANCEL REFRESH

```

Figure 3-23. OFF_HOOK Action Form

QUIT Action

Releases the call currently under the CONVERSANT vector's control. When used in conjunction with the Converse step, control of calls released using QUIT returns to the DEFINITY G3 or ECS R5 switch.

Enter a comment, if you wish.

```
LUCENT TECHNOLOGIES Customer Assist Care Center - December 10, 1996
1 Custo 4 EDIT VECTOR NUMBER 0 STEPS
>Call Ve
System Vector Name: setup Vector Number: 0
System Description: system setup vector
UNIX Sy
Exit

Step Action Description
1 GLOBAL global declarations
2 OFF_HOOK answer the call
3 CHAN_ASN assign channels to vectors
4 CHAN_ASN assi 5 QUIT Action Step Number 11 for vector 0
5 CHAN_ASN assi
6 CHAN_ASN assi QUIT Action Step Ends Call Processing
7 CHAN_ASN assi
8 CHAN_ASN assi
9 CHAN_ASN assi
10 CHAN_ASN assi
11 QUIT if c Comment: if channel is not assigned.
12
13
14

Please enter your comments.
HELP CLOSE CANCEL REFRESH
```

Figure 3-24. QUIT Action Form

REPORT Action

Records, for reporting purposes, the current value of a variable. This information is important when administering and debugging your call center application. It also is useful to report on the value of specific variables for management purposes, such as the number of times a specific DNIS is called or the number of times a specific department is called.

Customer Assist Care Center records the value of a variable immediately upon encountering a REPORT action.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 10, 1996

1 Cust **4 EDIT VECTOR NUMBER 1 STEPS**

Vector Name: Main Menu Vector Number: 1
 Description: Testing menu

Step	Action	Description
1	HANG_ACT	end with vector 11 (Hang Act)
2	MENU	Main Menu Speech Prompt
3	REPORT	on %ci_value
4	REPORT	on %ci_value
5	SPEAK_NUM	in %ci_value
6	QUIT	quit
7		
8		
9		
10		
11		
12		
13		
14		

5 REPORT Action Step Number 3 for vector 1

REPORT Action Step Stores Value of Variable

Variable to Report: %ci_value

Comment: caller input

Enter the variable name follow by the Return or ENTER key.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 3-25. REPORT Action Form

1. Name the variable to document. Press CHOICES **F2** for a list.
2. Enter a comment, if you wish.



TIP:

If you want to know the value of a certain variable while a vector is executing, insert a REPORT action in the vector in question and choose the variable you wish to see in the REPORT action form. Then, run an Event Detail Report to see what the value of that variable is. You will be able to see this report on screen or by printing it to your local default printer physically attached to your CONVERSANT.

SCHEDULE Action

Allows the application to take different actions according to a schedule. It compares the current date and time to a schedule which maps time periods to specific vector actions and transfers control to the vector associated with the scheduled time period into which the current data and time falls.

By scheduling vectors, you can respond to calls differently on holidays, after hours, or during other periods without reassigning applications manually.

For each application you want to schedule, you enter a specific date and time, or use the asterisk (*) as a wildcard character in combination with days or months to indicate time periods or recurring times. You also choose whether to "start" routing at that time and continue for the remainder of the hour, day, week, month,

or year, or whether instead to route callers only “during” the minute, hour, day, week, month, or year represented by your entry.

**TIP:**

You can set up special holiday hours by using the SCHEDULE action. This way your incoming callers can hear different announcements during different time of the day, month, or year. It is recommended that holidays such as New Years day or other days where the call will not be handle in the normal way be set up in a separate SCHEDULE action than the normal one. This way, it would be easier to add, edit or delete entries for special handling without affecting the entries for normal handling.

By using the wildcard character or by leaving fields on the Action Definition form blank, you can easily schedule applications to run at many different times. For example, by choosing to “start” routing to a vector at 10:01 on Thursday and not specifying a specific date or year, you direct the system to route to your vector every week, from 10:01 a.m. on Thursday to 12:00 a.m. on Friday, the following day. By choosing route “during” this time instead, you would direct the system to route to your vector every Thursday, for the minute between 10:01 and 10:02 a.m.

**NOTE:**

To have holiday and other schedules to supersede your every-day schedule, use a separate SCHEDULE action and position it before any other SCHEDULE action in your vector.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 10, 1996

1 Custo 4 EDIT VECTOR NUMBER 8 STEPS

>Call Use
System
System
UNIX Sy
Exit

3 Edi

0!setup
1!Main
2!MB Ac
3!chang
4!Trans
5!IUR a
6!Spec
7!conUE
>8!Sched
9!Morni

Vector No	Description	Step	Ac	SC	QU	Start/	During	HR:MN	Day	Month	Year	GOTO	Vector	Vector Name
5	SCHEDULE Action Step Number 1 for vector 8	1	SC			Start/								
	SCHEDULE CHANGES VECTORS BY TIME	2	QU			Start								
	Comment:	3												
		4												
		5				Start		12 00	*	*	*		10	Afternoon ANN
		6				Start		08 00	*	*	*		9	Morning ANN
		7												
		8												
		9												
		10												
		11												
		12												
		13												
		14												

Please enter your comments.

HELP CHOICES CLOSE PREUPAGE NEXTPAGE CANCEL REFRESH

Figure 3-26. SCHEDULE Action Form

1. Enter a comment, if you wish.
2. Move your cursor to the first line in the column marked Start/During.
3. Enter **Start** to begin routing at a specific time and continue for the remainder of the hour, day, week, month, or year as represented in the following table; enter **During** to route callers only during a specific minute, hour, day, week, month, or year. Press CHOICES **F2** to toggle between responses.

If the greatest unit in your "start" time is:	Routing will continue until the end of the:
minute	hour
hour	day
day ("M," "T," "W," etc.)	week (midnight Saturday)
date ("1," "2," "3," etc.)	month
"M-F"	week (midnight Saturday)
month	year
year	(routing continues indefinitely)

4. Under HR, enter an hour to begin, from 00 to 23, where 00 indicates midnight. Press CHOICES **F2** for a list. Enter * or leave the field blank to indicate all hours.
5. Under MN, enter a minute to begin, from 00 to 59, where 00 indicates the top of the hour. Press CHOICES **F2** for a list. Enter * or leave the field blank to indicate all minutes.
6. Under Day, press CHOICES **F2** and select a day of the week, "M-F," or a date from 1 to 31. Press CHOICES **F2** for a list. Enter * or leave the field blank to indicate all days.
7. Under Month, press CHOICES **F2** and select a month. Enter * or leave the field blank to indicate all months.
8. Under Year, enter a year from 1997 to 2001. Press CHOICES **F2** for a list. Enter * or leave the field blank to indicate all years.

**NOTE:**

Dynamic choices include the current year and the next four years.
This value will be updated automatically every year.

9. After GOTO Vector, enter the number of a CONVERSANT vector to activate during the specified period. Press CHOICES **F2** for a list.
If a CONVERSANT vector with this number already exists, its name appears automatically. If not, no text appears.

**CAUTION:**

Be sure to create CONVERSANT vectors for vector numbers you enter here before you place the new vectors into service. If not, when auditing the vector database, internal vectors will alarm the system and fail an integrity check.

10. Repeat steps 3 through 9 for each period you want to associate with a vector.

**NOTE:**

When multiple schedule actions are used in a callflow, if the first SCHEDULE action is used, no subsequent SCHEDULE actions are used.

SET Action

Performs a mathematical operation on the value of a numeric variable and replaces the original value with the resulting value. This can be used as a counter variable to enable error checking during vector flow. The SET action can also be used to map dynamic announcement numbers to switch VDNs that do not map on a one-to-one basis. For example, an incoming VDN of "200" can correspond to dynamic announcement number "2000" by multiplying the incoming VDN value by 10.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 10, 1996

1 Custo 4 EDIT VECTOR NUMBER 6 STEPS

>Call Ue
System
System
UNIX Sy
Exit

Vector Name: Speech Admin Vector Number: 6
Description: _____

Step	Action	Description
1	MENU	spadm choice
2	REPORT	on %data1
3	GOTO	Step 5 if %data1 != 1
4	SPCH	5 SET Action Step Number 6 for vector 6
5	GOTO	
6	SET	SET Action Step Performs Operation on Variable
7	SPCH	
8	QUIT	
9		
10		Variable Operator Value
11		%phrase_num = 1010
12		Comment: _____
13		
14		

Enter the variable name follow by the Return or ENTER key.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 3-27. SET Action Form

1. After Variable, enter the name of the variable containing the value to modify. Press CHOICES **F2** for a list.
2. Follow Operator with an arithmetic operator. Choices include:

addition	+
subtraction	-
multiplication	*
division	/
new value	=
3. After Value, enter the operand to use with the operator just specified or press CHOICES **F2** to select from a list. You can use either a variable or a number.



NOTE:

Although values you assign to variables with (=) may be alphanumeric and up to 24 characters long, values you use in other operations (such as + or /) must be fewer than 10 digits. Otherwise, the integer 999,999,999,999 will result automatically to indicate an error. In operations where both arguments are within bounds but the result falls beyond the system's limits for integers (-2,147,483,648 to 2,147,483,647), the system will yield unpredictable results.

4. Enter a comment, if you wish.



TIP:

To count the number of times a certain event has occurred, use a SET action to set a specific variable, like %data1, to 0 and then after the event has occurred, increase the count of that variable by 1 using a second SET command. You can then report on the value of that variable later in your vectors. An example of this is to see how many times callers move in and out of a specific area in a bulletin board application. This method is useful in measuring the effectiveness of a specific call center application as viewed by your callers.

SPCH_ADMN Action

Allows you to administer, with a touch-tone phone, phrases defined for vectors, mailboxes, and standard speech.

When you add this action to a vector, you can also define the talkfile and phrase numbers to use. Alternatively, you can leave these spaces blank to have the system prompt callers for these numbers.

You can also use a variable to represent a phrase number to administer. With a variable, you can administer speech dynamically the same way you can play speech dynamically with the DYN_ANNOUN action.

**CAUTION:**

To protect the integrity of your talkfiles, do not use this action in vectors that communicate with external callers and be sure to always use a speech administration password.

See "Speech Administration" on page 4-42 for more about this password and other settings you can administer from the administration terminal.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - December 10, 1996
4 EDIT VECTOR NUMBER 6 STEPS
Vector Name: Speech Admin Vector Number: 6
Description:
Step Action Description
1 MENU spadm choice
2 REPORT on %data1
3 GOTO Step 5 if %data1 != 1
4 SPCH_ADMN
5 GOTO Step 8 if %data1 != 2
6 SET %phrase_num = %phrase_num = 1010
7 5 SPCH_ADMN Action, Step Number 7 for vector 6
8
9 SPCH_ADMN Action starts the Speech Administration program.
10
11 Specify the talkfile: 6104
12 Specify the phrase number: 1010
13
14 Comment:
Enter the talkfile number followed by the Return or ENTER key.
HELP CHOICES CLOSE ENTER CANCEL REFRESH

```

Figure 3-28. SPCH_ADMN Action Form

1. Specify the talkfile containing the phrase to record. Press CHOICES **F2** for a list of talkfile numbers. Leave this space blank to prompt callers for a talkfile number.
2. Specify the number of the phrase to record or choose the variable containing this phrase by pressing CHOICES **F2** and selecting from a list. Leave this space blank to prompt callers to enter a phrase number.

**NOTE:**

Although you can specify a talkfile to administer without also specifying a phrase, you cannot specify a phrase without first specifying its talkfile.

**TIP:**

When recording speech in SPCH_ADMN, you can advance faster than the prompts if you know what the next phrase will be. Push **[3]** to record the next phrase, enter the phrase number followed by the pound sign, and then start recording. For example, you have created a number of phrases and wish to record them. Generate and print the phrase listing. With this in front of you, launch one of the phrases that you wish to record. When recording, refer to the phrase listing that you have printed. After recording that phrase, press **[3]** to select another phrase to record. Enter the next phrase number that you wish to record followed by the pound sign. You can interrupt the announcements if you like to get to the recording faster by pressing a touch tone. At the beep, record the next phrase. Continue these steps until all the phrases have been recorded.

SPEAK_NUM Action

Speaks a number to the caller in the default language or the last language chosen from the last CHG_LANG action. SPEAK_NUM will never speak a fractional value because the system removes any value to the right of a number's decimal point before it associates that number with a variable name. This works in all 11 languages supported in Care Center.

The screenshot shows a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - December 10, 1996". The main window is titled "EDIT VECTOR NUMBER 1 STEPS". It displays a table of steps for a vector named "Main Menu" (Vector Number: 1). The steps include actions like HANG_ACT, MENU, REPORT, and SPEAK_NUM. The SPEAK_NUM action is highlighted, showing its configuration: "SPEAK_NUM in %data1 as Character". Below the table, there is a prompt to "Enter the number or variable, follow by the Return or ENTER key." and a row of buttons: HELP, CHOICES, CLOSE, ENTER, CANCEL, and REFRESH.

Step	Action	Description
1	HANG_ACT	end with vector 11 (Hang Act)
2	MENU	Main Menu Speech Prompt
3	REPORT	on %ci_value
4	REPORT	on %data1
5	SPEAK_NUM	in %data1 as Character
6	5 SPEAK_NUMBER Action Step Number 5 for vector 1	
7	SPEAK NUMBER Action step speaks number or string to caller	
8	Number: %data1	
9	Speak as Number/Character string: Character	
10	Note : Speaks numbers over 9 digits as characters.	
11		
12		
13		
14		

Enter the number or variable, follow by the Return or ENTER key.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 3-29. SPEAK_NUM Action Form

1. After Number, name the variable that will contain the value to speak, or enter a value directly. Press CHOICES **[F2]** for a list of variables.

- After **Speak as Number/Character string**, use the default setting **Number** to speak the value as a whole number (for example, twenty-two), or press **CHOICES F2** and select **Character** to speak the value as a string of characters.

**NOTE:**

The system always speaks numbers over 999,999,999 digit-by-digit.

**NOTE:**

On a multilingual system, the number will be spoken back in the base language or the language set in the last **CHG_LANG** action.

SWITCH Action

Moves call control to one of up to 11 vectors, depending on the value of a specified variable. **SWITCH** is similar to **DYNAMIC**, but it launches vectors, not **CONVERSANT** applications.

**NOTE:**

If you have a case where a single variable may end up having multiple values, you can use the **SWITCH** action to direct callers to different vectors depending on the value of the variable. For example, based on the **DNIS** collected from the switch via the **CONVERSE** action, the system can evaluate the **DNIS** value and direct the caller to the appropriate applications using the **SWITCH** action.

VALUE	VECTOR NUM	VECTOR NAME
1	2	MB Actions
2	3	changeLanguage
3	4	Transfer
4	5	IUR apps
5	6	Speech Admin
6	8	Scheduling
7	14	Get Speech
8	12	PassParameters
9	20	SecondaryMenu
x99	15	quit

Figure 3-30. SWITCH Action Form

1. Enter a comment, if you wish.
2. Enter the name of the variable whose value will determine which CONVERSANT vector to target. Press CHOICES **[F2]** for a list.
3. In the column marked VALUE, enter up to 11 acceptable values. Most common entries will include the:
 - Standard digits **0** to **9**.
 - Touch-tone symbol ***** (star).
 - Wild-card character, **n**, representing any single standard digit. For example, **nn** represents any 2-digit number.
 - Repeat character **r**. For example, **123r** represents "123," "1233," "12333," etc.
 - Quit character **q**. For example, **123q** represents any entry, up to the maximum allowable length, that begins with the digits "123."



NOTE:

Refer to your Script Builder documentation for more information about using **n**, **r**, **q**, and other special characters.

4. In the corresponding column marked VECTOR NUM, associate each value with the number of a CONVERSANT vector to activate if that value matches the caller's entry. Press CHOICES **[F2]** for a list. If a CONVERSANT vector with this number already exists, its name appears automatically. If not, no text appears.

If the variable's value matches more than one value in this column, the SWITCH action activates the vector associated with the first match.

If the variable's value does not match any value in this column, then the call "falls through" this step and continues with the current vector.



CAUTION:

Be sure to create CONVERSANT vectors for vector numbers you enter here before you place the new vectors into service. If not, when auditing the vector database, internal vectors will alarm the system and fail an integrity check.

TRANSFER Action

Transfers the caller to any extension or VDN you specify when the call is not under DEFINITY vector control via the Converse step. This action can only be used when callers are sent to the CONVERSANT without using the Converse step.

Call Management System (CMS) reports do not document calls transferred by this action. For more accurate CMS reporting, use the DATA_RTN action to return an extension number to a DEFINITY vector that you configure to transfer the call.

**NOTE:**

Before using the TRANSFER action with line-side T1/E1 channels, use the ANNOUNCE action or other actions that take time once in the CONVERSANT vector so that the switch will not interpret the transfer as a hang-up.

**CAUTION:**

Transfers may not follow a Converse step.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 10, 1996

1 Custo 4 EDIT VECTOR NUMBER 18 STEPS

>Call Use Vector Name: XFER test Vector Number: 18
System Description: Test from Ashraft for Tom on Frolo
System
UNIX Sy
Exit

Step	Action	Description
1	ANNOUNCE	1032 Enter 1 to 10 digits now to be used as ph #
2	GET_DIGIT	get 10 digits and load into %data1
3	SET	%return_vlu = %return_vlu = 77
4	REPO	5 Transfer Action, Step Number 5 for vector 18
5	TRAN	
6	REPO	TRANSFER Action step transfers caller.
7	SPCH	
8	QUIT	Transfer call to Extension: %data1
9		
10		Return Value: %return_vlu
11		
12		Comment: transfer to an extension
13		
14		

Enter the extension number followed by the Return or ENTER key.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 3-31. TRANSFER Action Form

1. Enter the number of the extension destination or a name of the variable representing the extension number. Press CHOICES [F2] for a list.

The system automatically uses the variable `%return_vlu` to represent any data returned by the DEFINITY G3 or ECS R5 in the event of an error.

Possible return values include:

- Blank = May occur on blind transfers
- 0 = Instruction Successfully Completed
- -1 = Hard/Software/Dialing Error
- -2 = Timeout Waiting for Call Progress Tones
- -3 = Illegal Dial String Passed

2. Enter a comment, if you wish.

TRANSRIBE (TRANSCRIBE) Action

Plays the contents of a Message Drop mailbox. Touch-tone options move transcribers through messages and can optionally launch return calls automatically.



CAUTION:

If an agent dials a VDN to access a TRANSRIBE vector and is converted from the DEFINITY to the CONVERSANT, the agent cannot launch a callback. To enable this feature, route the agent's call to the CONVERSANT rather than conversing the call.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - December 10, 1996
1 Custo 4 EDIT VECTOR NUMBER 2 STEPS
>Call Ue
System Vector Name: MB Actions Vector Number: 2
System Description: Access mail boxes
UNIX Sy
Exit

Step Action Description
1 ANNOUNCE Please enter mail box number
2 GET_DIGT get 5 digits and load into %data2
3 REPORT on %data2
4 ANNOUNCE Press 1 for msg drop, 2 for transcribe
5 GET_DIGT get 1 digits and load into %data3
6 REPORT on %data3

5 Transcribe Action, Step Number 10 for vector 2

TRANSRIBE Action starts the transcription program.

Transcribe messages from mailbox: %data2

Comment:

Enter the mailbox number or a variable followed by the Return or ENTER key.
HELP CHOICES CLOSE ENTER CANCEL REFRESH

```

Figure 3-32. TRANSRIBE Action Form

1. Optionally, enter the number or variable name holding the number of the mailbox containing messages you want to transcribe. Press CHOICES **[F2]** for a list.



NOTE:

The system will prompt callers to enter a mailbox number if you do not specify one in the TRANSRIBE action. If you specify a variable, remember that the variable must be assigned a value before the TRANSRIBE action can use it to decide which mailbox to activate. You may use the CONVERSE or SET action to assign values to variables before invoking the TRANSRIBE action.

2. Enter a comment, if you wish.

Special Instructions for Line-Side T1/E1 Users

Line-side T1/E1 users should use the following guidelines:

- To avoid long silences, before using the CONVERSE action, access the Systems-Parameters Features screen on the DEFINITY G3 or ECS R5 switch and set the Converse First and Second Data Delay parameters to 1.
- Before using the TRANSFER action in a CONVERSANT vector, use the ANNOUNCE action or other actions that take time at least once in the CONVERSANT vector so that the switch will not interpret the transfer as a hang-up.

This chapter describes how to administer Customer Assist Care Center. Use it as a reference for administering your system. It covers the following:

- Configuring CONVERSANT vectors and templates,
- Administering speech, agent mailboxes, and call routing tables,
- Generating reports, and
- Backup and restore features.

Care Center Main Menu

After you log in to the Care Center, the main menu appears, as shown in Figure 4-1.

NOTE:

For information on logging in refer to “Logging In” on page 2-3.

NOTE:

To ensure security, change the default password soon after you log into the system for the first time and periodically after. (For instructions refer to Appendix A of *INTUITY CONVERSANT System Version 6.0 Upgrade*, 585-310-183.)

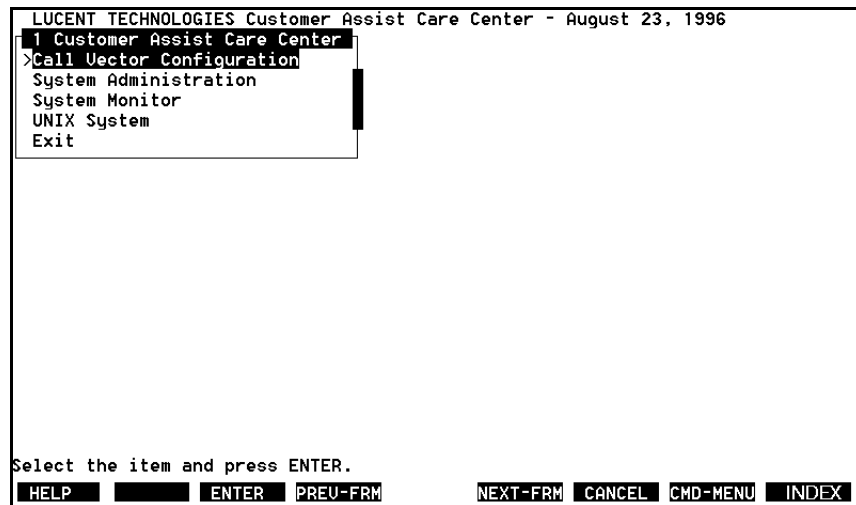


Figure 4-1. Care Center Main Menu

You begin all system activities by highlighting one of the following options and pressing **ENTER**.

- Call Vector Configuration
- System Administration
- System Monitor
- UNIX System
- Exit

Call Vector Configuration

Use this menu, shown in Table 4-2, to create, delete, and modify CONVERSANT vectors. The menu also allows you to place new or modified vectors into service.

Figure 4-2. Vector Configuration Menu

When you place new vectors in service, the system retains a copy of every vector and its parameter settings in a database used exclusively for development. This permits you to create and modify CONVERSANT vectors without immediately influencing the way the system handles calls. Options at this menu are:

- Create New Vector
- Edit Vector
- Delete Vector
- Copy Vector
- Select Vector Template
- Audit Vector Database
- Place New Vectors in Service

Creating a New CONVERSANT Vector

LUCENT TECHNOLOGIES Customer Assist Care Center - August 28, 1996

1 Cust 3 EDIT VECTOR NUMBER 32 STEPS

>Call Ue
System
System
UNIX Sy
Exit

Vector Name: _____ Vector Number: 32
Description: _____

Step	Action	Description
1	_____	
2	_____	
3	_____	
4	_____	
5	_____	
6	_____	
7	_____	
8	_____	
9	_____	
10	_____	
11	_____	
12	_____	
13	_____	
14	_____	

Enter the vector name.

HELP INSERT REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS

Figure 4-3. CONVERSANT Vector Worksheet

1. Choose Create New Vector from the Vector Configuration menu. Press **ENTER**.

A CONVERSANT vector worksheet, seen in Figure 4-3, will appear.



TIP:

When entering options in vector definition screens, you can type directly into the definition screen entry lines. You cannot, however, type directly onto the vector worksheet. You must use **CHG-KEYS** **F8** and **CHOICES** **F2** to pick one of the vector actions.

Action step numbers appear under the first column, labeled Step. Corresponding action steps appear in the second column, labeled Action. The third column, Description, summarizes the parameters specified for each action.

2. Name your vector in the Vector Name field. Press **ENTER**.
3. Optionally, enter a description of this vector in the Description field.



NOTE:

Vector names and descriptions are for reference only; they do not affect the handling of calls.

4. Move to the column marked Action.
- Action step numbers appear under the first column, labeled Step .
5. On the first available line, press CHG-KEYS [F8] and INSERT [F2], and select an action from the list.
6. Complete the definition form that appears.
7. Press CLOSE [F3].
8. Move to the next available line and repeat steps 5 through 7 for each additional action you want this vector to perform.
9. Press CHG-KEYS [F8] and SAVE [F3] to save your CONVERSANT vector.



NOTE:

See "CONVERSANT Vector Actions" on page 3-1 for more information about defining specific actions and their parameters.

Editing a CONVERSANT Vector



TIP:

Make sure that you "Place New Vectors in Service" after you make any changes to your vectors. Otherwise, your vector changes will not go into effect.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 09, 1996

1 Customer Assist Care Center      2 Vector Configuration
>Call Vector Configuration         Create New Vector
System Administration              >Edit Vector
System Monitor                    Delete Vector
UNIX System                       Copy Vector
Exit                             Select Vector Template
                                  Audit Vector Database
                                  Place New Vectors in Service

3 Edit Vector
>0|setup                          11|MSG DROP
1|C4M test                        12|SPCH ADM
2|C4T test                        13|ashtest
3|EWT Template                    14|Ash Main
4|db test                        15|Ash Announce
5|global test                    16|Ash MsgDrop
6|Ashtest                        17|Ash Transcribe
7|announce test                  18|Ash Speech Adm
8|chg lang test                  19|Dale Test 1
9|Ashtest Copy                   20|msg drop
10|ASHTEST

Select the item and press ENTER.
[HELP] [ENTER] [PREV-FRM] [NEXT-FRM] [CANCEL] [CMD-MENU]

```

Figure 4-4. Edit Vector Menu

1. Choose **Edit Vector** from the Vector Configuration menu and press **ENTER**.
A menu of **CONVERSANT** vectors, sorted by vector number, will appear, as shown in Figure 4-4.
2. Highlight the name of the vector you want to edit, or enter the vector number that appears before the name.
3. Press **ENTER**.

The worksheet for this vector, like the sample shown in Figure 4-5, will appear with the vector name, number, and any description entered originally.

Action step numbers appear under the first column, labeled **Step**. Corresponding action steps appear in the second column, labeled **Action**. The third column, **Description**, summarizes the parameters specified for each action.

 NOTE:

If you have entered into a screen to view some action step definitions and you have not made any changes to the specific action step form, you should press **CANCEL F6** rather than **CLOSE F3** or **SAVE F3** because you will be able to get back to the previous screen faster and your cursor will be left where it was in the active vector rather than sent back to the top of the screen in the vector.

 NOTE:

When entering options in vector definition screens, you can type directly into the definition screen entry lines. You cannot, however, type directly onto the vector worksheet. You must use **CHG-KEYS F8** and **CHOICES F2** to pick one of the vector actions. To speed up this second process, start typing the first few letters of the next action you wish to use when all of the actions appear in the list and that action will be highlighted automatically.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 24, 1996
1 Custd 4 EDIT VECTOR NUMBER 2 STEPS
>Call Use
System
System
UNIX Sy
Exit
3 Edit
0!setup
1!C4M t
>2!C4T t
3!EWT T
4!db te
5!globa
6!Ashte
7!annou
8!chg l
9!Ashte

Step Action Description
1 TRANSCRIBE messages from box 300
2 QUIT
3
4
5
6
7
8
9
10
11
12
13
14

Enter the vector name.
HELP INSERT REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS

```

Figure 4-5. Sample Vector Worksheet

Inserting an Action Step into a CONVERSANT Vector

1. Move the cursor to the line on the vector worksheet where you want the new action to appear and press INSERT **[F2]**. There must already be an action on this line.

The system will prompt you to confirm the insertion; press CONT **[F3]** to proceed.



NOTE:

Inserting an action step to a line on the CONVERSANT vector worksheet that already contains an action inserts a new action and moves the original action down a line on the form. Do not attempt to insert a blank line where one exists already, as you may distort the worksheet.

2. Return your cursor to the new line and press CHG-KEYS **[F8]** and CHOICES **[F2]**.

A list of vector actions, shown in Figure 4-6, will appear.



NOTE:

Before presenting its list of actions, the system evaluates the CONVERSANT vector's size (cannot exceed 1K) and warns you if another action might exceed its storage capacity. If you encounter this warning, consider using the GOTO action to continue your application on a new vector worksheet. Then, either press CANCEL

[F6] to return to the CONVERSANT vector worksheet, or CONT [F3] to proceed.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - January 23, 1997
1 Custd 3 EDIT VECTOR NUMBER 2 STEPS
>Call Use
System Vector Name: _____ Vector Number: 2
System Description: _____
UNIX Sy
Exit Step Action Description
      1
4 Select Action
>ADA_CALC GET_DIGT REPORT
ANNOUNCE GET_SPCH SCHEDULE
CHAN_ASN GLOBAL SET
CHG_LANG GOTO SPCH_ADMN
CONVERSE HANG_ACT SPEAK_NUM
DATA_RTN LOOK_UP SWITCH
DYNAMIC MENU TRANSFER
DYN_ANNOU MSG_DROP TRANSCRIBE
EXECUTE OFF_HOOK
GET_DIALP QUIT
      14
Select the action and press ENTER.
HELP ENTER PREU-FRM NEXT-FRM CANCEL

```

Figure 4-6. Worksheet for Sample Vector and Select Action Menu

- Highlight the name of the action you want to add. Press [ENTER], and complete the action-definition form that appears.



NOTE:

See "CONVERSANT Vector Actions" on page 3-1 for more information about actions and action-definition forms.

- Press CLOSE [F3].
- Press CHG-KEYS, [F8] and SAVE [F3] when you have finished adding or deleting actions.



NOTE:

The system does not apply changes to call handling until you place new vectors in service at the Vector Configuration menu.

Removing an Action Step from a CONVERSANT Vector

- Highlight on the vector worksheet the action step you want to delete.
- Press REMOVE [F3].
- Press CONT [F3] to confirm.

4. Press CHG-KEYS **[F8]** and SAVE **[F3]** to save this modified CONVERSANT vector when you have finished adding or deleting actions.



NOTE:

The system does not apply changes to call handling until you place new vectors in service at the Vector Configuration menu.

Deleting a CONVERSANT Vector

1. Choose Delete Vector from the Vector Configuration menu and press **[ENTER]**.

A menu of CONVERSANT vectors like the one in Figure 4-4 will appear.

2. Highlight the name of the vector you want to delete, or enter the number that appears before the name.
3. Press MARK **[F2]**.

To remove more than one vector, return to step 2. To unmark a vector, highlight its name and press MARK **[F2]** again.

4. Press **[ENTER]**.
5. Press CONT **[F3]** to confirm.



NOTE:

After you delete a CONVERSANT vector in this fashion, you can no longer select it for editing. However, to stop a deleted vector from handling calls, you must also place new vectors in service at the Vector Configuration menu.

Copying a CONVERSANT Vector

1. Choose Copy Vector from the Vector Configuration menu and press **[ENTER]**.

The Copy Vector form, shown in Figure 4-7, will appear.

2. After Copy from Vector, enter the number of the vector you want to copy, or press CHOICES **[F2]** for a list.
3. After To Vector, enter an available vector number, or use the default value that appears. Optionally, on the line to the right, enter a name for your new vector.
4. Optionally, enter a description.
5. Press CLOSE **[F3]**.

The screenshot displays a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - September 09, 1996". It shows a menu-driven interface with three main sections:

- 1 Customer Assist Care Center**:>Call Vector Configuration
System Administration
System Monitor
UNIX System
Exit
- 2 Vector Configuration**:Create New Vector
Edit Vector
Delete Vector
>Copy Vector
Select Vector Template
Audit Vector Database
Place New Vectors in Service
- 3 Copy Vector**:

	Vector Num	Vector Name
Copy from Vector :		
To Vector :	21	
Description:		

At the bottom, there is a prompt "Enter the vector to copy from." and a row of buttons: HELP, CHOICES, CLOSE, ENTER, CANCEL, and REFRESH.

Figure 4-7. Copy Vector Form

Selecting a Vector Template

As an alternative to the Create New Vector option, you can choose one of the five vector templates supplied with the system to create partial CONVERSANT vectors that you can customize to perform common call handling tasks.

Each time you use a template, the system creates a new CONVERSANT vector for you. Because each vector (except the Setup template) has a unique number, it can operate independently from other CONVERSANT vectors with the same name. This allows you to use the same template to build new vectors for different applications.

Use this section to help you decide when to use a template as the foundation for an application.

By using the Speech Administration utility described later in this chapter, you can define speech phrases before you select a template, or you can define them while you edit the CONVERSANT vectors that these templates create.

➤ NOTE:

You do not need to record speech for phrases you define until you are ready to place your template vectors in service.

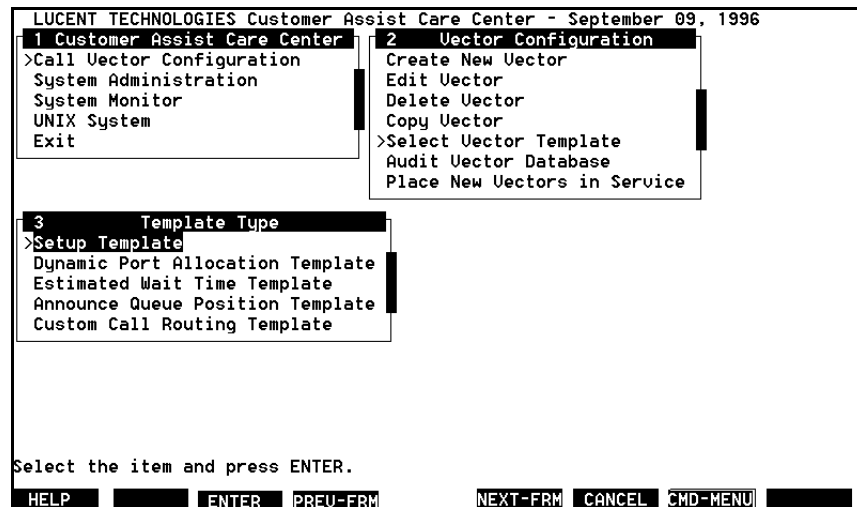


Figure 4-8. Template Type Menu

To Use a Template:

1. Choose Select Vector Template from the Vector Configuration menu and press **ENTER**.

A menu of templates, shown in Figure 4-8, will appear.

2. Highlight the name of the template you want, or type the first few letters of its name.
3. Press **ENTER**.

The system will create and display a single template vector. This primary vector delivers callers to other vectors as appropriate.

4. Consult the following template editing guidelines.

**Using the Setup Template to Assign
CONVERSANT Vectors to Channels**

This template overwrites the setup vector that routes all incoming calls to CONVERSANT vectors.

By default, your vector database includes a blank setup vector. You must configure this vector to take each dialed channel "off hook" and launch the CONVERSANT vector assigned. Although the setup vector uses the CHAN_ASN action to attach specific CONVERSANT vectors to channels, you can use actions such as DYNAMIC and SWITCH in the targeted vectors to respond dynamically to arguments they receive with calls.

**CAUTION:**

You must configure the setup vector before callers can use other CONVERSANT vectors, because the system uses the setup vector to respond to every call. When you create a new setup vector, you overwrite the original.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 09, 1996

1 Custo 3 EDIT VECTOR NUMBER 0 STEPS

>Call Use
System
System
UNIX Sy
Exit

Vector Name: setup Vector Number: 0
Description: system setup vector

Step	Action	Description
1	GLOBAL	global declarations
2	OFF_HOOK	answer the call
3	CHAN_ASN	assign channels to vectors
4	CHAN_ASN	assign channels to vectors
5	CHAN_ASN	assign channels to vectors
6	CHAN_ASN	assign channels to vectors
7	CHAN_ASN	assign channels to vectors
8	CHAN_ASN	assign channels to vectors
9	CHAN_ASN	assign channels to vectors
10	CHAN_ASN	assign channels to vectors
11	QUIT	if channel is not assigned.
12		
13		
14		

Enter the vector name.

HELP INSERT REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS

Figure 4-9. Setup Vector Worksheet

To assign CONVERSANT vectors to channels:

1. To overwrite the existing setup vector, choose the Setup Template from the Template Type menu shown in Figure 4-8 on page 4-13. To make changes to the setup vector without overwriting it, choose the Edit Vector option instead. The Setup Vector worksheet, shown in Figure 4-9, will appear using either method.

The setup vector in Figure 4-9 corresponds to a 96-channel Care Center configuration. (Each CHAN_ASN action can represent 12 channels.)

2. Move your cursor to the first CHAN_ASN action and press DEFINE [F4].

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 09, 1996
6 Choices VECTOR NUMBER 0 STEPS
>1|Main Menu 9|Morning ANN
2|MB Actions 10|Afternoon ANN
3|changeLanguage 11|Hang Act
4|Transfer 12|PassParameters
5|IUR apps 13|test vars
6|Speech Admin 14|GetSpeech
7|convEWTdatartn 15|quit
8|Scheduling 16|tran var test

>0|setup 5 CHAN_ASN assi 34
1|Main 6 CHAN_ASN assi 35
2|MB Ac 7 QUIT if c 36
3|chang 8
4|Trans 9
5|IUR a 10
6|Spec 11
7|convE 12
8|Sched 13
14

Vector Number: 0
N_ASN Action Step Number 3 for vector 0
ASN assigns vectors to channels
ent: assign channels to vectors
EL VECTOR NAME
1 Main Menu
1 Main Menu
1 Main Menu
1 Main Menu
7 convEWTdatartn
5 1 Main Menu
6 1 Main Menu
7 1 Main Menu
8 1 Main Menu
9 1 Main Menu
10 7 convEWTdatartn

Select the item and press ENTER.
ENTER CANCEL

```

Figure 4-10. Channel Assignment Definition Form and Vector List

The channel assignment definition form, shown in Figure 4-10 with a list of choices (see step 4), will appear. Optionally, enter a comment.

3. Move your cursor to an available line under the CHANNEL column, type the number of an active channel, and press **(ENTER)**.
4. Type the number of the CONVERSANT vector to associate with calls to this channel in the VECTOR column

or

Press CHOICES **(F2)** and a numbered list of existing CONVERSANT vectors will appear, as shown in Figure 4-10. Select your vector.

5. Press **(ENTER)**.
If a CONVERSANT vector with this number exists, its name will appear in the NAME column.
6. Press CLOSE **(F3)**, CHG-KEYS **(F8)**, and SAVE **(F3)**.
7. Repeat steps 3 through 6 for every active channel in Care Center. Use additional CHAN_ASN actions to assign more than 12 channels.

Using the Dynamic Port Allocation Template

This template's vector routes callers to CONVERSANT applications based on the value of any variable you specify.

The system will create a new vector each time you select this template. With this vector, called Dynamic Templ., you can execute any CONVERSANT application from any channel in Care Center.

Follow these steps to configure the dynamic port allocation vector correctly:

1. Choose Dynamic Port Allocation Template from the Template Type menu shown in Figure 4-8 on page 4-13.

Care Center will generate a vector called Dynamic Templ. The worksheet for Dynamic Templ. appears in Figure 4-11.

Step	Action	Description
1	DYNAMIC	Port allocation, block 1 (choose programs).
2	DYNAMIC	Port allocation, block 2 (choose programs).
3	DYNAMIC	Port allocation, block 3 (choose programs).
4	ANNOUNCE	value not found (choose phrase)
5	QUIT	end call.
6		
7		
8		
9		
10		
11		
12		
13		
14		

Figure 4-11. Dynamic Template Vector Worksheet

2. Move your cursor to the first DYNAMIC action and press DEFINE **[F4]**. The Dynamic Port Allocation Definition form will appear, as shown in Figure 4-12.
3. Move your cursor to the Variable field and press CHOICES **[F2]**.
4. Select a variable.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 09, 1996

1 Custo 4 EDIT VECTOR NUMBER 21 STEPS

>Call Use System Vector Name: Dynamic Templ. Vector Number: 21

3 DYNAMIC PORT ALLOCATION BLOCK 1 for vector 21

DYNAMIC ALLOCATION STARTS PROGRAMS FOR GIVEN VALUES

Comment: Port allocation, block 1 (choose pr

Variable: _____

VALUE	PROGRAM	ARG1	ARG2	ARG3

Please enter your comments.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 4-12. Dynamic Templ. Vector Worksheet with the DYNAMIC Action Definition Form

5. List on the DYNAMIC Action Definition form in Figure 4-12:

- Possible values
- Corresponding CONVERSANT applications (programs)
- Arguments to pass (such as a telephone number, account number, or customer number)



NOTE:

The variable you select must be assigned a value before the DYNAMIC action uses it to decide which CONVERSANT application to execute. You may use the CONVERSE, SET, GET_DIGT, or MENU actions earlier in the vector or the call to capture or assign values to variables. This is useful because it routes callers to the appropriate location based on their identity or selections made during the call.

6. Press CLOSE [F3].



NOTE:

You can use the other DYNAMIC actions in the same way to accommodate additional variable names, values, and CONVERSANT applications to target.

7. Move your cursor to the ANNOUNCE action and press DEFINE [F4].

The ANNOUNCE action, shown in Figure 4-13, will appear.

LUCENT TECHNOLOGIES Customer Assist Care Center - January 23, 1997

1 Cust 3 EDIT VECTOR NUMBER 55 STEPS

>Call Use
System Vector Name: _____ Vector Number: 55
System Description: _____
UNIX Sy

5 ANNOUNCE Action Step Number 2 for vector 55

ANNOUNCE Action step speaks a phrase to caller

Talkfile Number: 6104 US English
Allow Interrupt: yes

Phrase Tag: For technical assistance press 2.
Phrase Number:
Phrase Text:

HELP CHOICES CLOSE ENTER CANCEL REFRESH ADD-PHR

Figure 4-13. Dynamic Templ. Vector Worksheet with the ANNOUNCE Action Definition Form

8. After Talkfile Number field select the talkfile number corresponding to the language in which to speak this phrase.
9. After Phrase Tag, enter the name of the speech phrase you defined to notify callers that their entry does not match any valid choices

or

Press CHOICES **[F2]** to select from a list.



NOTE:

To create a new phrase tag for this action instead, press ADD-PHR **[F8]**. A phrase definition form will appear. Use this form to define your new phrase tag and press SAVE **[F3]**. Although you cannot record speech at this time, you can assign the phrase to your ANNOUNCE action immediately.

10. Press CLOSE **[F3]**, CHG-KEYS **[F8]**, and SAVE **[F3]** to return to the Vector Configuration menu.



NOTE:

Dynamic Templ. uses the QUIT action to end the CONVERSANT's involvement in the call and return call control to the DEFINITY vector. Replace this action if you do not want Dynamic Templ. to end the CONVERSANT's involvement in the call.

Using the Estimated Wait Time Template (Beginning with DEFINITY G3V4)

This template's vector tells each caller how long to wait for an agent, based on wait time estimates from the DEFINITY switch.

The system creates one new CONVERSANT vector each time you select this template.

Follow these steps to configure the Estimated Wait Time template correctly:

1. Select Estimated Wait Time Template from the Template Type menu.

Care Center will generate the vector shown in Figure 4-14.

The screenshot shows a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - August 23, 1996". On the left is a menu with options: "1 Custo", ">Call Use", "System", "System", "UNIX Sy", and "Exit". The main area is titled "EDIT VECTOR NUMBER 23 STEPS". It displays the following information:

- Vector Name: EWT Template
- Vector Number: 23
- Description: Calculate & speak delay minutes in queue

Step	Action	Description
1	<u>EWT</u>	calculates the delay from %data1 into %data2
2	<u>GOTO</u>	Step 8 if %data2 = 1
3	<u>GOTO</u>	Step 10 if %data2 > 20
4	<u>ANNOUNCE</u>	This is the leading announcement, normal wait.
5	<u>SPEAK_NUM</u>	number in %data2 as Number
6	<u>ANNOUNCE</u>	This is the trailer announcement.
7	<u>GOTO</u>	Step 11 unconditionally
8	<u>ANNOUNCE</u>	This is the short wait announcement.
9	<u>GOTO</u>	Step 11 unconditionally
10	<u>ANNOUNCE</u>	This is the long wait phrase.
11	<u>QUIT</u>	Return call to PBX.
12		
13		
14		

At the bottom, it says "Enter the vector name." followed by a row of buttons: **HELP**, **INSERT**, **REMOVE**, **DEFINE**, **ENTER**, **CANCEL**, **REFRESH**, and **CHG-KEYS**.

Figure 4-14. Vector Created by the Estimated Wait-Time Template

This vector can use the CONVERSE action with the variable *%data1* to acquire the expected wait time from a Converse step in a DEFINITY vector. Then, it can use the EWT action to convert this estimate and the ANNOUNCE and SPEAK_NUM actions to speak the new estimate to the caller. After each estimated wait time announcement, call control reverts to the DEFINITY vector.

➡ NOTE:

The template does not automatically include the CONVERSE action in the vector it creates for you. You must create another vector that uses CONVERSE to acquire this information and GOTO to jump to the EWT vector.

To configure the EWT vector correctly:

2. Move your cursor to the EWT action and press DEFINE [F4].

The EWT definition form will appear, as shown in Figure 4-15.

- a. In EWT Input enter the variable into which the EWT was collected from the DEFINITY via CONVERSE Step (%data1). Select a variable in which to place the result of the conversion in the field Calculated Output.
- b. Optionally, increase or decrease the wait time estimate from the switch by adjusting the Weighting Index. The default value of 100% leaves this estimate unchanged.
- c. Optionally, change Resolution from Minutes to Seconds.
- d. Optionally, change Rounding from Up to Down or Nearest.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 09, 1996

1 Custo 4 EDIT VECTOR NUMBER 19 STEPS

>Call Use
System
System
UNIX Sy
Exit

Vector Name: EWT Template Vector Number: 19
Description: Calculate & speak delay minutes in queue

Step	Action	Description
1	EWT	calculates the delay from %data1 into %data2
2	GOTO	Step 8 if %data2 = 1
3	GOTO	Step 10 if %data2 > 20

3 EWT ACTION STEP 1 for vector 19 wait.

ESTIMATED WAIT TIME IN QUEUE ACTION

EWT Input: %data1 Calculated Output: %data2
 Weighting Index: 100%
 Resolution: Minutes Rounding: Up
 Comment: calculates the wait in minutes.

13 _____
14 _____

Enter the variable that receives estimated wait time.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 4-15. EWT Template Vector Worksheet with EWT Action Definition Form

3. Press CLOSE [F3].
4. Move your cursor to the first ANNOUNCE action and press DEFINE [F4].
The ANNOUNCE Action Definition form will appear, as shown in Figure 4-16.
5. After Phrase Tag, enter the speech phrase you defined to precede the wait time estimate.

or

Press CHOICES [F2] to select from a list.

For example, you might record “An agent will be available in approximately...”



NOTE:

To create a new phrase tag for this action instead, press ADD-PHR [F8]. A phrase definition form will appear. Use this form to define your new phrase tag and press SAVE [F3]. Although you cannot record speech at this time, you can assign the phrase to your ANNOUNCE action immediately.

6. Press CLOSE [F3].

LUCENT TECHNOLOGIES Customer Assist Care Center - January 15, 1997

1 Custo 4 EDIT VECTOR NUMBER 25 STEPS

>Call Use Vector Name: EWT Template Vector Number: 25
 System Description: Calculate & speak delay minutes in queue
 System
 UNIX Sy

3 ANNOUNCE Action Step Number 4 for vector 25

ANNOUNCE Action step speaks a phrase to caller

Talkfile Number: 6104 US English
 Allow Interrupt: yes

Phrase Tag: This is the leading announcement, normal wait.
 Phrase Number:
 Phrase Text:

Enter the talkfile.

HELP CHOICES CLOSE ENTER CANCEL REFRESH ADD-PHR

Figure 4-16. EWT Template Vector Worksheet with ANNOUNCE Action Definition Form

7. Move your cursor to the SPEAK_NUM action and press DEFINE [F4].

In the Number field select the variable from the list corresponding to the expected wait time calculated output, using CHOICES [F2]. Then in the Speak as Number/Character string field enter Number, using CHOICES [F2] to cause the action to speak the wait time as a number.

LUCENT TECHNOLOGIES Customer Assist Care Center - November 07, 1996

1 Custo 4 EDIT VECTOR NUMBER 34 STEPS

>Call Use
System Vector Name: EWT Template Vector Number: 34
System Description: Calculate & speak delay minutes in queue
UNIX Sy
Exit

Step	Action	Description
1	EWT	calculates the delay from %data1 into %data2
2	GOTO	Step 8 if %data2 = 1
3	GOTO	Step 10 if %data2 > 20

3 SPEAK_NUMBER Action Step Number 5 for vector 34 normal wait.

SPEAK NUMBER Action step speaks number or string to caller

Number: %data2 t.

Speak as Number/Character string: Number

Note : Speaks numbers over 9 digits as characters.

14

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 4-17. SPEAK_NUMBER Action Form

8. Move to the second ANNOUNCE action and press DEFINE [F4].
9. After Phrase Tag, enter the speech phrase you defined to follow the wait estimate

or

Press CHOICES [F2] to select from a list.

For example, you might record only "...minutes" or "seconds," depending on the resolution you chose in Step 2.

⇒ NOTE:

To create a new phrase tag for this action instead, press ADD-PHR [F8]. A phrase definition form will appear.

10. Press CLOSE [F3].
11. Move to the third ANNOUNCE action and press DEFINE [F4].
12. After Phrase Tag, enter the name of the speech phrase you defined to notify callers that they should expect a very brief wait,

or

Press CHOICES [F2] to select from a list.

⇒ NOTE:

To create a new phrase tag for this action instead, press ADD-PHR [F8]. A phrase definition form will appear.

13. Press CLOSE [F3].
14. Move to the fourth ANNOUNCE action and press DEFINE [F4].
15. After Phrase Tag, enter the name of the speech phrase you defined to notify callers that they should expect an especially long wait,

or

Press CHOICES [F2] to select from a list.



NOTE:

To create a new phrase tag for this action instead, press ADD-PHR [F8]. A phrase definition form will appear.

16. Press CLOSE [F3], CHG-KEYS [F8], and SAVE [F3] to return to the Vector Configuration menu.

Using the Anticipated Delay Announcement Template (before DEFINITY G3V4)

This template's vector approximates how long a caller can expect to wait for an agent, and it speaks this information to the caller.

The system creates a new CONVERSANT vector each time you select this template. Called ADA template, it can use

- Queue-position information, acquired from the switch via the Converse step
- Your estimates of call duration and staff size

to calculate how long a caller will wait in queue. The worksheet for ADA Template is shown in Figure 4-18.



NOTE:

The template does not automatically include the CONVERSE action in the vector it creates for you. You must create another vector that uses CONVERSE to acquire this information and GOTO to jump to ADA template.

Follow these steps to configure the anticipated delay announcement template correctly:

1. Select the Anticipated Delay Announcement Template from the Template Type menu.

Care Center will generate the vector shown in Figure 4-18.

If ADA Template determines that agents are staffed and that the anticipated delay to the caller is less than 20 minutes, it communicates the anticipated delay to the caller and returns call control to the DEFINITY vector.

To configure this CONVERSANT vector correctly:

```

LUCENT TECHNOLOGIES Customer Assist Care Center      - October 30, 1995
1 4 EDIT VECTOR NUMBER 44 STEPS
>Call Use
System
System
UNIX Sy
Exit

Vector Name: ADA Template      Vector Number: 44
Description: Calculate & speak delay minutes in queue

Step  Action      Description
1  ADA_CALC      calculate the delay into %data2
2  GOTO          Step 9 if %data2 = 1
3  GOTO          Step 11 if %data2 > 20
4  GOTO          Step 13 if %data2 = -1
5  ANNOUNCE      This is the leading announcement, normal wait.
6  SPEAK_NUM      in %data2 as Number
7  ANNOUNCE      This is the trailer announcement.
8  GOTO          Step 14 unconditionally
9  ANNOUNCE      This is the short wait announcement.
10 GOTO          Step 14 unconditionally
11 ANNOUNCE      This is the long wait phrase.
12 GOTO          Step 14 unconditionally
13 ANNOUNCE      This is the no agents avail phrase.
14 QUIT          Return call to PBX.

HELP  INSERT  REMOVE  DEFINE  ENTER  CANCEL  REFRESH  CHG-KEYS

```

Figure 4-18. ADA Template Vector Worksheet

2. Move your cursor to the ADA_CALC action and press DEFINE [F4].

The ADA_CALC Definition form will appear, as shown in Figure 4-19.

- a. After Avg. Call Length, enter an estimate, in seconds, of how long each caller will be connected to an agent.
- b. Move your cursor to the grid titled Number of Agents Staffed.
- c. For each day of the week (found above the cursor) and each hour of the day (found to the left of the cursor) enter how many agents will be on duty during these hours. (Blank spaces correspond to 0 agents.)

Use PREVPAGE [F4], NEXTPAGE [F5], and the up and down arrow keys to move around this form.

Do not press CANCEL [F6] unless you want to abandon your entries.

LUCENT TECHNOLOGIES Customer Assist Care Center - January 15, 1997									
1 Cust		4 EDIT VECTOR NUMBER 26 STEPS							
>Call Use	System	Vector Name: ADA Template		Vector Number: 26					
System	UNIX Sy	Description: Calculate & speak delay minutes in queue							
Exit	Step	Action	Description						
3	ADA_CALC Action Step Number 1 for vector 26		a2						
ADA_CALC CALCULATES THE ANTICIPATED DELAY IN QUEUE									
Avg. Call Length: Queue Position : %data1									
Result : %data2									
Comment: calculate the delay into %data2									
Number of Agents Staffed									
	SUN	MON	TUE	WED	THU	FRI	SAT		
6 AM									
7 AM									
8 AM									
9 AM									
10 AM									
11 AM									
Enter the duration in seconds, followed by pressing the Return key.									
HELP CHOICES CLOSE PREUPAGE NEXTPAGE CANCEL REFRESH									

Figure 4-19. ADA Template Vector Worksheet with ADA_CALC Action Definition Form

3. Press CLOSE [F3].
4. Move your cursor to the first ANNOUNCE action and press DEFINE [F4]. The ANNOUNCE Action Definition form will appear, as shown in Figure 4-20.
5. After Phrase Tag, enter the speech phrase you defined to precede the anticipated delay, which the vector speaks as a discrete number

or

Press CHOICES [F2] to select from a list.

For example, you might record "An agent will be available in approximately..."

➡ NOTE:

To create a new phrase tag for this action instead, press ADD-PHR [F8]. A phrase definition form will appear. Use this form to define your new phrase tag and press SAVE [F3]. Although you cannot record speech at this time, you can assign the phrase to your ANNOUNCE action immediately.

6. Press CLOSE [F3].
7. Move your cursor to the SPEAK_NUM action and press DEFINE [F4].

In the Number field select the variable from the list corresponding to the anticipated delay calculated output, using CHOICES [F2]. Then in the Speak as Number/Character string field enter Number, using CHOICES [F2] to cause the action to speak the anticipated delay as a number.

Figure 4-20. ADA Template Vector Worksheet with the ANNOUNCE Action Definition Form

8. Move to the second ANNOUNCE action and press DEFINE [F4]. An action-definition form will appear.
9. After Phrase Tag, enter the speech phrase you defined to follow the anticipated delay

or

Press CHOICES [F2] to select from a list.

For example, you might record only "...minutes."



NOTE:

To create a new phrase tag for this action instead, press ADD-PHR [F8]. A phrase definition form will appear.

10. Press CLOSE [F3].
11. Move your cursor to the next ANNOUNCE action and press DEFINE [F4]. An action-definition form will appear.

12. After Phrase Tag, enter the name of the speech phrase you defined to notify callers that they should expect a delay of one minute or less

or

Press CHOICES **[F2]** to select from a list.



NOTE:

To create a new phrase tag for this action instead, press ADD-PHR **[F8]**. A phrase definition form will appear.

13. Press CLOSE **[F3]**.
14. Move your cursor to the next ANNOUNCE action and press DEFINE **[F4]**. An action-definition form like the one in Figure 4-20 will appear.
15. After Phrase Tag, enter the name of the speech phrase you defined to notify callers that they should expect a delay of 20 minutes or more

or

Press CHOICES **[F2]** to select from a list.



NOTE:

To create a new phrase tag for this action instead, press ADD-PHR **[F8]**. A phrase definition form will appear.

16. Press CLOSE **[F3]**.
17. Move your cursor to the last ANNOUNCE action and press DEFINE **[F4]**. An action-definition form will appear.
18. After Phase Tag, enter the name of the speech phrase you defined to notify callers that no agents currently staffed to serve them

or

Press CHOICES **[F2]** to select from a list.



NOTE:

To create a new phrase tag for this action instead, press ADD-PHR **[F8]**. A phrase definition form will appear.

19. Press CLOSE **[F3]**, CHG-KEYS **[F8]**, and SAVE **[F3]** to return to the Vector Configuration menu.

Using the Announce Queue Position Template

This template creates a vector to tell callers their relative position in queue.

The system creates a new CONVERSANT vector each time you select this template. From a DEFINITY vector, launch this CONVERSANT vector to tell callers how many calls precede theirs in queue.

Follow these steps to configure the Announce Queue Position template correctly:

1. Select Announce Queue Position Template from the Template Type menu.

Care Center will generate one vector, Queu Pos Templ. This vector's worksheet, which appears in Figure 4-21, uses the CONVERSE action with the variable *%data1* to acquire the caller's queue position from a DEFINITY vector. It then announces the caller's queue position to the caller and returns call control to the DEFINITY vector.

The screenshot shows a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - September 09, 1996". The main menu on the left includes options like "1 Custo", ">Call Ue", "System", "System", "UNIX Sy", and "Exit". The current screen is titled "EDIT VECTOR NUMBER 20 STEPS". It displays the vector name "Queu Pos Templ" and vector number "20". The description is "Get queue pos from PBX & spk. announce". Below this is a table with columns "Step", "Action", and "Description".

Step	Action	Description
1	CONVERSE	collect 3 digits into %data1
2	ANNOUNCE	Beginning part of queue pos. announce.
3	SPEAK_NUM	in %data1 as Number
4	ANNOUNCE	Trailing part of queue pos announce.
5	QUIT	Pass call back to PBX.
6		
7		
8		
9		
10		
11		
12		
13		
14		

At the bottom, there is a prompt "Enter the vector name." and a row of buttons: HELP, INSERT, REMOVE, DEFINE, ENTER, CANCEL, REFRESH, and CHG-KEYS.

Figure 4-21. Queu Pos Templ Vector Worksheet

2. To configure this vector, move your cursor to the CONVERSE action on the worksheet and press DEFINE [F4].
3. Enter the Number of Digits to Collect, a variable in the Load Digits into Variable field, and a variable in the Place number of digits collected into field.
4. Enter a comment if you wish.

LUCENT TECHNOLOGIES Customer Assist Care Center - February 07, 1997

1 Custo 4 EDIT VECTOR NUMBER 10 STEPS

>Call Use Vector Name: Queu Pos Temp1 Vector Number: 10
 System Description: Get queue pos from PBX & spk. announce
 System
 UNIX Sy
 Exit

Step	Action	Description
1	CONVERSE	collect 3 digits into %data1
2	ANNOUNCE	Beginning part of queue pos. announce.
3	SPEAK NUM	in %data1 as Number

3 CONVERSE ACTION, STEP 1 for vector 10 announce.

Converse Step gathers TouchTones

Number of Digits to Collect: 3

Load Digits into Variable: %data1

Place number of digits collected into: %num_dig_got

Comment: Get digits from switch.

Enter the number followed by the Return or ENTER key.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 4-22. Queu Pos Temp1 Worksheet with CONVERSE Action Definition Form

- Next, move your cursor to the first ANNOUNCE action on the worksheet and press DEFINE [F4].

The ANNOUNCE action-definition form in Figure 4-23 will appear.

LUCENT TECHNOLOGIES Customer Assist Care Center - January 15, 1997

1 Custo 4 EDIT VECTOR NUMBER 27 STEPS

>Call Use Vector Name: Queu Pos Temp1 Vector Number: 27
 System Description: Get queue pos from PBX & spk. announce
 System
 UNIX Sy

3 ANNOUNCE Action Step Number 2 for vector 27

ANNOUNCE Action step speaks a phrase to caller

Talkfile Number: 6104 US English
 Allow Interrupt: yes

Phrase Tag: Beginning part of queue pos. announce.
 Phrase Number:
 Phrase Text:

Enter the talkfile.

HELP CHOICES CLOSE ENTER CANCEL REFRESH ADD-PHR

Figure 4-23. Queu Pos Temp1 Worksheet with ANNOUNCE Action Definition Form

6. After Phrase Tag, enter the name of the speech phrase you defined to precede the queue position, which the vector speaks as a discrete number

or

Press CHOICES [F2] to select from a list.

For example, you might record "Currently, there are..."



NOTE:

To create a new phrase tag for this action instead, press ADD-PHR [F8]. A phrase definition form will appear. Use this form to define your new phrase tag and press SAVE [F3]. Although you cannot record speech at this time, you can assign the phrase to your ANNOUNCE action immediately.

7. Press CLOSE [F3].
8. Move your cursor to the SPEAK_NUM action and press DEFINE [F4].
In the Number field select the variable from the list corresponding to the queue position, using CHOICES [F2]. Then in the Speak as Number/Character string field enter Number, using CHOICES [F2] to cause the action to speak the queue position as a number. See Figure 4-17.

LUCENT TECHNOLOGIES Customer Assist Care Center - February 11, 1997

1 Custo 4 EDIT VECTOR NUMBER 13 STEPS

>Call Use
System
System
UNIX Sy
Exit

Vector Name: Queu Pos Templ Vector Number: 13
Description: Get queue pos from PBX & spk. announce

Step	Action	Description
1	CONVERSE	collect 3 digits into %data1
2	ANNOUNCE	Beginning part of queue pos. announce.
3	SPEAK_NUM	in %data1 as Number

3 SPEAK_NUMBER Action Step Number 3 for vector 13 e.

SPEAK NUMBER Action step speaks number or string to caller

Number: %data1

Speak as Number/Character string: Number

Note : Speaks numbers over 9 digits as characters.

14

Enter the number or variable, follow by the Return or ENTER key.

HELP CHOICES CLOSE CANCEL REFRESH

Figure 4-24. SPEAK_NUM Action Detail Form

9. Move to the second ANNOUNCE action and press DEFINE [F4]. An action-definition form will appear.

10. After Phase Tag, enter the name of the speech phrase you defined to follow the queue position

or

Press CHOICES [F2] to select from a list.

For example, you might record only "...people waiting to speak with our agents."



NOTE:

To create a new phrase tag for this action instead, press ADD-PHR [F8]. A phrase definition form will appear.

11. Press CLOSE [F3], CHG-KEYS [F8], and SAVE [F3] to return to the Vector Configuration menu.

Using the Custom Call Routing Template

This template's vector uses information it receives from a DEFINITY vector to route incoming calls.

The system creates a new CONVERSANT vector each time you select this template. From a DEFINITY vector, launch this CONVERSANT vector to route callers intelligently.

Follow these steps to configure the routing template vector correctly:

1. Select Custom Call Routing Template from the Template Type menu.

Care Center will generate the vector shown in Figure 4-25. This routing template uses the CONVERSE action with the variable *%ci_value* to acquire information such as the caller's phone number (ANI) from the DEFINITY vector.

LUCENT TECHNOLOGIES Customer Assist Care Center - August 28, 1996

1 Cust 4 EDIT VECTOR NUMBER 31 STEPS

>Call Use
System
System
UNIX Sy
Exit

Vector Name: Routing Templ. Vector Number: 31
Description: Gather ANI from PBX & route call.

Step	Action	Description
1	CONVERSE	collect 10 digits into %ci_value
2	LOOK_UP	%ci_value in table (choose table)
3	GOTO	Step 6 if %matched = 1
4	GOTO	Step 8 if %matched = 0
5	QUIT	else, quit on error.
6	ANNOUNCE	Play normal routing message (choose).
7	DATA_RTN	to PBX with FAC (insert code here)
8	ANNOUNCE	Play no match message (choose).
9	DATA_RTN	to PBX with FAC (insert code here)
10		
11		
12		
13		
14		

Enter the vector name.

HELP INSERT REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS

Figure 4-25. Routing Templ. Worksheet

2. Move your cursor to the CONVERSE action and press DEFINE [F4]. The action-definition form in Figure 4-26 will appear.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 09, 1996

1 Cust 4 EDIT VECTOR NUMBER 21 STEPS

>Call Use
System
System
UNIX Sy
Exit

Vector Name: Routing Templ. Vector Number: 21
Description: Gather ANI from PBX & route call.

Step	Action	Description
1	CONVERSE	collect 10 digits into %ci_value
2	LOOK_UP	%ci_value in table (choose table)
3	GOTO	Step 6 if %matched = 1

3 CONVERSE ACTION, STEP 1 for vector 21

Converse Step gathers TouchTones (choose).

Number of Digits to Collect: 10 e here)

Load Digits into Variable: %ci_value se).

Place number of digits collected into: %num_dig_got e here)

Comment: collect ANI from PBX.

Enter the number followed by the Return or ENTER key.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 4-26. Routing Templ. Vector Worksheet with CONVERSE Action Definition Form

3. After Number of Digits to Collect, enter the maximum number of digits to accept from the DEFINITY vector.

For many routing applications, you will accept a 10-digit telephone number from the PBX.

4. Press CLOSE [F3].
5. Move your cursor to the LOOK_UP action and press DEFINE [F4]. The LOOK_UP action form, shown in Figure 4-27, will appear.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 09, 1996
1 Custo 4 EDIT VECTOR NUMBER 21 STEPS
>Call Use
System Vector Name: Routing Templ. Vector Number: 21
System Description: Gather ANI from PBX & route call.
UNIX Sy
Exit Step Action Description
3 LOOK_UP Table Action, Step Number 2 for vector 21

LOOK_UP Action looks up values in a database table.

Input Fields
Routing table:
Look-up field: %ci_value
Return Fields
Number of Matches found: %matched
Data field 1: %data1
Data field 2: %data2

Comment: look up value and return data.
Note: The LOOK_UP action requires that the table be populated.

Enter the routing table name followed by the Return or ENTER key.
HELP CHOICES CLOSE ENTER CANCEL REFRESH
  
```

Figure 4-27. Routing Templ. Vector Worksheet with LOOK_UP Action Definition Form



NOTE:

This LOOK_UP action compares the value of the variable *%ci_value* to the values in the Look-up field in the records of the Routing table which you specify. If Care Center finds one such record where the *%ci_value* matches this Look-up field value, the CONVERSANT vector continues to the first ANNOUNCE action in the vector.

6. Press CHOICES [F2].

After Routing table, enter the name of the database table you created for Custom Call Routing.

In this example, the first column in this table must contain possible values for the variable *%ci_value*.

Optionally, you may associate a third column of information with *%ci_value*. The LOOK_UP action in this CONVERSANT vector uses the variables *%data1* and *%data2* to acquire information in the second and third columns, respectively.

For more information about routing tables, see Custom Call Routing Administration later in this chapter.

7. Press CLOSE [F3].
8. Move your cursor to the first ANNOUNCE action and press DEFINE [F4]. The ANNOUNCE action form in Figure 4-28 will appear.

LUCENT TECHNOLOGIES Customer Assist Care Center - January 15, 1997

1 Custo 4 EDIT VECTOR NUMBER 28 STEPS

>Call Use
System Vector Name: Routing Templ. Vector Number: 28
System Description: Gather ANI from PBX & route call.
UNIX Sy

3 ANNOUNCE Action Step Number 6 for vector 28

ANNOUNCE Action step speaks a phrase to caller

Talkfile Number: 6104 US English
Allow Interrupt: yes

Phrase Tag: Play normal routing message (choose).
Phrase Number:
Phrase Text:

Enter the talkfile.

HELP CHOICES CLOSE ENTER CANCEL REFRESH ADD-PHR

Figure 4-28. Routing Templ. Vector Worksheet with ANNOUNCE Action Definition Form

9. After Phase Tag, enter the name of the speech phrase you defined to precede the transfer

or

Press CHOICES [F2] to select from a list.

For example, you might record "An agent will be with you shortly."



NOTE:

To create a new phrase tag for this action instead, press ADD-PHR [F8]. A phrase definition form will appear.

10. Press CLOSE [F3].
11. Move your cursor to the first DATA_RTN action and press DEFINE [F4]. The DATA_RTN action form shown in Figure 4-29 will appear.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 09, 1996
1 Custo 4 EDIT VECTOR NUMBER 21 STEPS
>Call Use
System Vector Name: Routing Templ. Vector Number: 21
System Description: Gather ANI from PBX & route call.
3 Data Return Action, Step Number 7 for vector 21

DATA_RTN Action returns information to switch. i_value
Feature Access Code: e table)

Data Return Segment 1: %data1
Data Return Segment 2: # ge (choose).
Data Return Segment 3: ode here)
Data Return Segment 4: oose).
Data Return Segment 5: ode here)
Data Return Segment 6:
Data Return Segment 7:
Data Return Segment 8:

Comment: Return database field to PBX.

Enter the FAC followed by the Return or ENTER key.
HELP CHOICES CLOSE ENTER CANCEL REFRESH

```

Figure 4-29. Routing Templ. Vector Worksheet with DATA_RTN Action Definition Form

12. Enter the feature access code (FAC) you want to send to the switch before the value in `%data1`. Your entry must be the same as the Converse Data Return FAC already specified on the DEFINITY switch for Data Return.
13. On the lines marked Data Return Segments, list any additional values (or variables containing values) you want to return to the DEFINITY vector, up to a combined limit of 24 characters. Every character in values you list on these lines counts toward the limit, including #, which you can use as a delimiter.



NOTE:

When using variables to represent values, keep in mind that the number of characters in the value, not the number of characters in the variable, count toward the limit.

14. Press CLOSE [F3].
15. Move your cursor to the next ANNOUNCE action and press DEFINE [F4]. An action-definition form will appear.

16. After Phase Tag, enter the name of the speech phrase you defined to notify callers that they will be transferred to an agent

or

Press CHOICES **[F2]** to select from a list.



NOTE:

To create a new phrase tag for this action instead, press ADD-PHR **[F8]**. A phrase definition form will appear. Use this form to define your new phrase tag and press SAVE **[F3]**. Although you cannot record speech at this time, you can assign the phrase to your ANNOUNCE action immediately.

17. Press CLOSE **[F3]**.
18. Move your cursor to the second DATA_RTN action and press DEFINE **[F4]**. An action-definition form like the one in Figure 4-29 on page 4-35 will appear.
19. Enter the FAC you want to send to the PBX before the extension number of an agent. Your entry must be the same as the Converse Data Return FAC already specified on the DEFINITY switch for Data Return.
20. To change the agent extension number that this vector will return to the DEFINITY vector (default = 0), move your cursor to field labeled Data Return Segment 1, and replace the default extension number with the desired number.
21. Press CLOSE **[F3]**, CHG-KEYS **[F8]**, and SAVE **[F3]** to return to the Vector Configuration menu.

Auditing the Vector Database

Choose this option to check vectors in your development database for common errors. Select this option before you place new vectors in service.

1. Select Audit Vector Database from the Vector Configuration menu. Press **[ENTER]**.

The results of the audit will appear on the screen. Warnings include:

- Vector xx, Is an Orphan: The vector is not assigned to any channel and is not referenced by any other vector.
- Vector xx, Not properly ended: The vector does not end with either a QUIT action or any other action that surrenders call control. Refer to "CONVERSANT Vector Actions" on page 3-1 for more information about actions and their properties.

- Vector xx, Converse Action Ends with Transfer: The vector contains a CONVERSE action followed by a TRANSFER action.

 NOTE:

The DEFINITY switch does not allow actions that flash the switch following a CONVERSE action. Instead, the switch is either expecting Care Center to return control to the DEFINITY vector via a QUIT action or is expecting digits to be returned via the Data Return feature.

- Vector xx, Goto to Nonexistent Vector: The vector contains a SWITCH, GOTO, or CHAN_ASN action that refers to a missing vector.
- Vector xx is incomplete (see YY action): The action is defined but not configured. Check that the step containing the action has been completely filled in. For a key of 2-letter action codes, see “Vector Map Report” on page 4-99.
- Channel xx is not assigned to ccc or is not in service: Channels specified in CHAN_ASN are not assigned to ccc or contain a channel that is not currently in service.
- Vector xx has undefined variable: References orphaned variables that are used in vectors but not defined.
- Phrase xx is not in phrase database: References orphaned phrase tags that are used in announcements or menus but not defined.
- Mailbox xx is no longer defined: References orphaned mailboxes that are used in vectors but no longer exist.
- Routing table xx is no longer defined: References routing tables that are used in vectors but no longer exist.
- GOTO step xx - step doesn't exist: References GOTO actions that jump to steps that don't exist.
- Phrase xx has not been recorded: References phrases that have valid phrase tags, but aren't recorded.
- Vector xx has uninstalled language: References vectors that require specific language vector talkfiles that are missing and/or not installed on the CONVERSANT.

- GOTO action contains an endless loop: Checks CONVERSANT vectors for GOTO step actions that call themselves.



CAUTION:

Passing this audit does not guarantee that a vector will operate as expected. This audit is not a substitute for careful vector planning and testing.



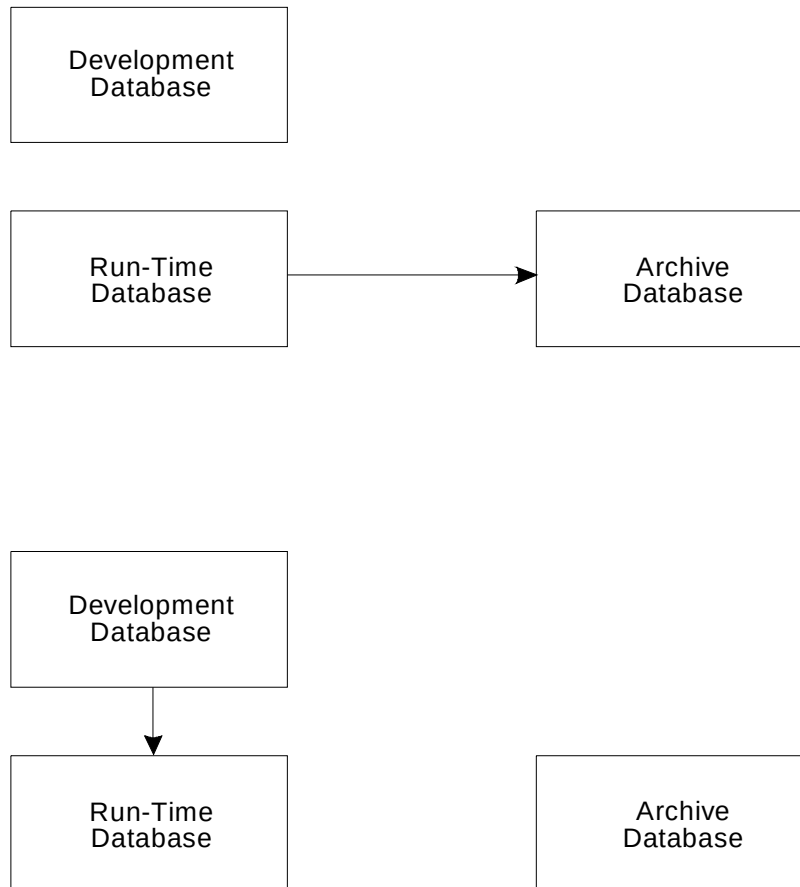
NOTE:

Conversely, the appearance of a warning does not necessarily indicate an error condition that will disrupt the handling of calls.

Placing New CONVERSANT Vectors in Service

Care Center maintains CONVERSANT vectors in three databases:

- Runtime database of active vectors
- Development database of duplicate runtime vectors that you can modify without affecting the way the system handles calls
- Archive database of previous runtime vectors



Placing New Vectors in Service

Figure 4-30. Three CONVERSANT Vector Databases

When you place new vectors in service, Care Center first compares the development database with the runtime database.

If they match exactly, the system indicates that no change has been made to the development database since it was last placed in service. Press CANCEL **[F6]** to return to the Vector Configuration menu.

If the two databases do not match, the system displays the name and number of each CONVERSANT vector that has been added or changed. Press CONT **[F3]** to place these vectors in service or CANCEL **[F6]** to return to the Vector Configuration menu.

As shown in Figure 4-30, the system uses a 2-step process to place new vectors in service.

1. It copies the database of current runtime vectors to an archive database.
2. It overwrites the runtime database with the development database.

To restore the previous runtime database after you replace it, choose **Restore Previous Runtime Database** from the **Restore Vector Database** menu described later in this chapter. From this menu, you can also restore CONVERSANT vectors from diskettes.

 NOTE:

Make sure that you “Place New Vectors in Service” after you make any changes to your vectors. Otherwise, your vector changes will not go into effect.

System Administration

This menu, shown in Figure 4-31, allows you to

- Create, modify, and delete speech phrases
- Add, edit, and delete variables
- Schedule and generate reports
- Save and retrieve databases of CONVERSANT vectors
- Administer the optional Callback Messaging and Custom Call Routing packages

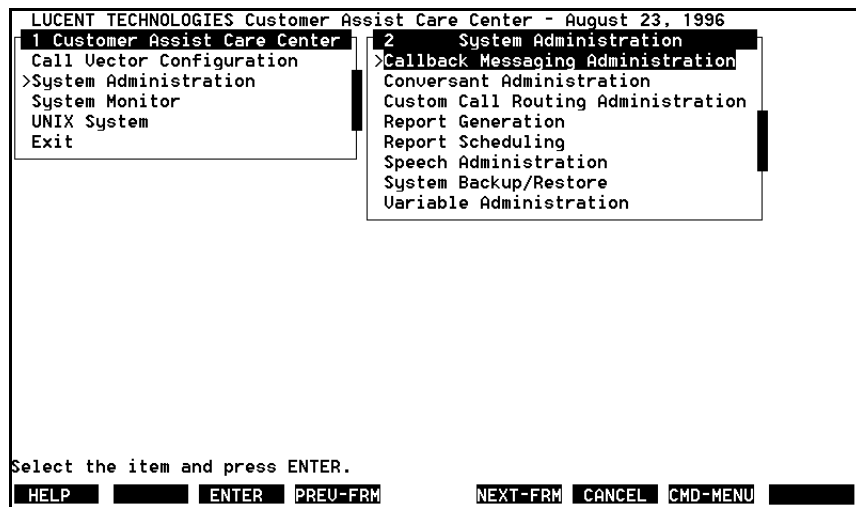


Figure 4-31. Care Center System Administration Menu

Specific options include:

- Callback Messaging Administration
- CONVERSANT Administration
- Custom Call Routing Administration
- Report Generation
- Report Scheduling
- Speech Administration
- System Backup/Restore
- Variable Administration

Speech Administration

To record and document speech, choose from the following options shown in the Speech Administration menu in Figure 4-32:

- Vector Phrase Administration
- Mailbox Phrase Administration
- Mailbox Standard Speech Administration
- Standard Speech Phrase Administration
- Password Administration
- Generate Phrase List
- Change Base Language

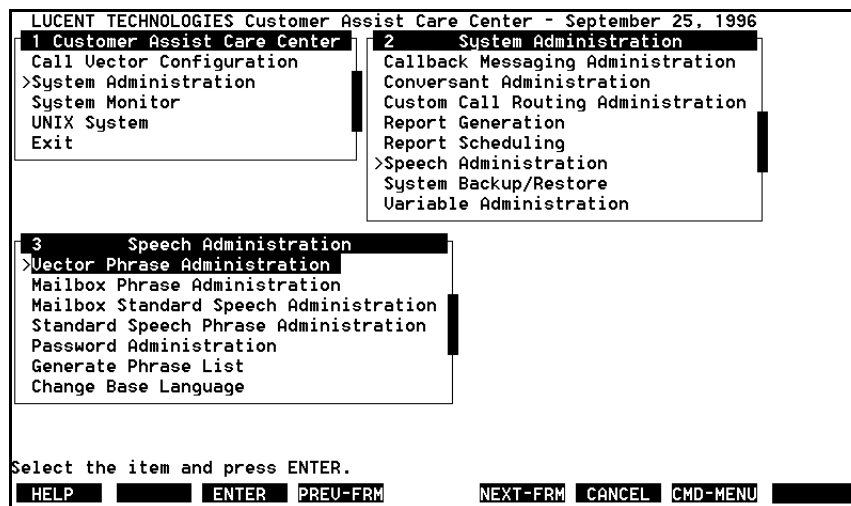


Figure 4-32. Speech Administration Menu

Administration of Phrases for Vectors, Mailboxes, and Standard Speech

Care Center stores speech phrases for CONVERSANT vectors, message-drop mailboxes, mailbox standard speech, and standard speech in separate talkfiles. To add or edit an existing phrase or to remove a phrase from the database of phrases, first choose one of the following talkfiles from the Speech Administration menu:

- Vector Phrase Administration (talkfile 6104 for U.S. English)
- Mailbox Phrase Administration (talkfile 6105 for U.S. English)

- Mailbox Standard Speech Administration (talkfile 6102 for U.S. English)
- Standard Speech Phrase Administration (talkfile 6100 for U.S. English)



NOTE:

Each language has a set of these talkfiles.



NOTE:

The Vector Phrases, Mailbox Phrases, Mailbox Standard Speech and Standard Speech use different talkfiles for different languages. For other languages' talkfile numbers see "Maximum Values" on page C-1.



TIP:

You can record speech for announcements by either recording directly in Speech Administration or by building a vector with the SPCH_ADMN action in it. When you call a certain extension, just configure your setup vector to point that extension to the SPCH_ADMN vector. That way you can access your speech at any time from any remote touch-tone phone. You don't have to go into Care Center at the console. You can do the same for Message Transcription as well using the TRANSCRIBE action. For example, a newspaper company could have the vectors set up so that their reporters and editors could call in from remote locations and update phrases in their bulletin board with the latest news and information.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 25, 1996
1 Customer Assist Care Center
  Call Vector Configuration
  >System Administration
  System Monitor
  UNIX System
  Exit
2 System Administration
  Callback Messaging Administration
  Conversant Administration
  Custom Call Routing Administration
  Report Generation
  Report Scheduling
  >Speech Administration
  System Backup/Restore
  Variable Administration
3 Speech
  >Vector Phrase A
  Mailbox Phrase
  Mailbox Standar
  Standard Speech
  Password Admini
  Generate Phrase
  Change Base Lan
4 Select Phrase
  >ADD NEW PHRASE
  REMOVE PHRASE
  COPY PHRASE
  6104!1010!This is Ashraf's test vector...
  6104!102!Vector Number
  6104!103!Press 1 for Announce, 2 for Msg Drp, 3 for....
  6104!104!That was an invalid entry.. Please try again..
  6104!105!That was an invalid entry
  6104!106!Enter the mailbox number
  6104!107!Enter the vector number to go to

Select the item and press ENTER.
HELP ENTER CANCEL CMD-MENU
  
```

Figure 4-33. Select Phrase Menu

Options, shown in Figure 4-33, include:

- Add New Phrase
- Remove Phrase
- Copy Phrase
- The phrase number of each phrase you can edit (by highlighting phrase number and pressing **ENTER**).

To review and record speech phrases over the telephone without sitting at the CONVERSANT terminal, use the SPCH_ADMN action in a CONVERSANT vector.

 NOTE:

You cannot add, copy, or delete phrase tags for Standard Speech and Mailbox Standard Speech. To change standard-speech phrase tags or rerecord the phrases in another voice, follow instructions for editing a phrase in “Editing a Phrase” on page 4-51. When rerecording standard speech, be sure to imitate the inflections that were used in the original phrases. Each phrase must be at least 1 second long. If you are using a telephone, be mindful of potential quality issues that may arise when re-recording the Standard Speech provided with Care Center. The Care Center Standard Speech was professionally recorded in a soundproof studio, which provides very high quality. That recording quality may be difficult to match if recording these phrases using a telephone.

The various options and their relationships for recording and playing speech phrases are shown in Figure 4-34.

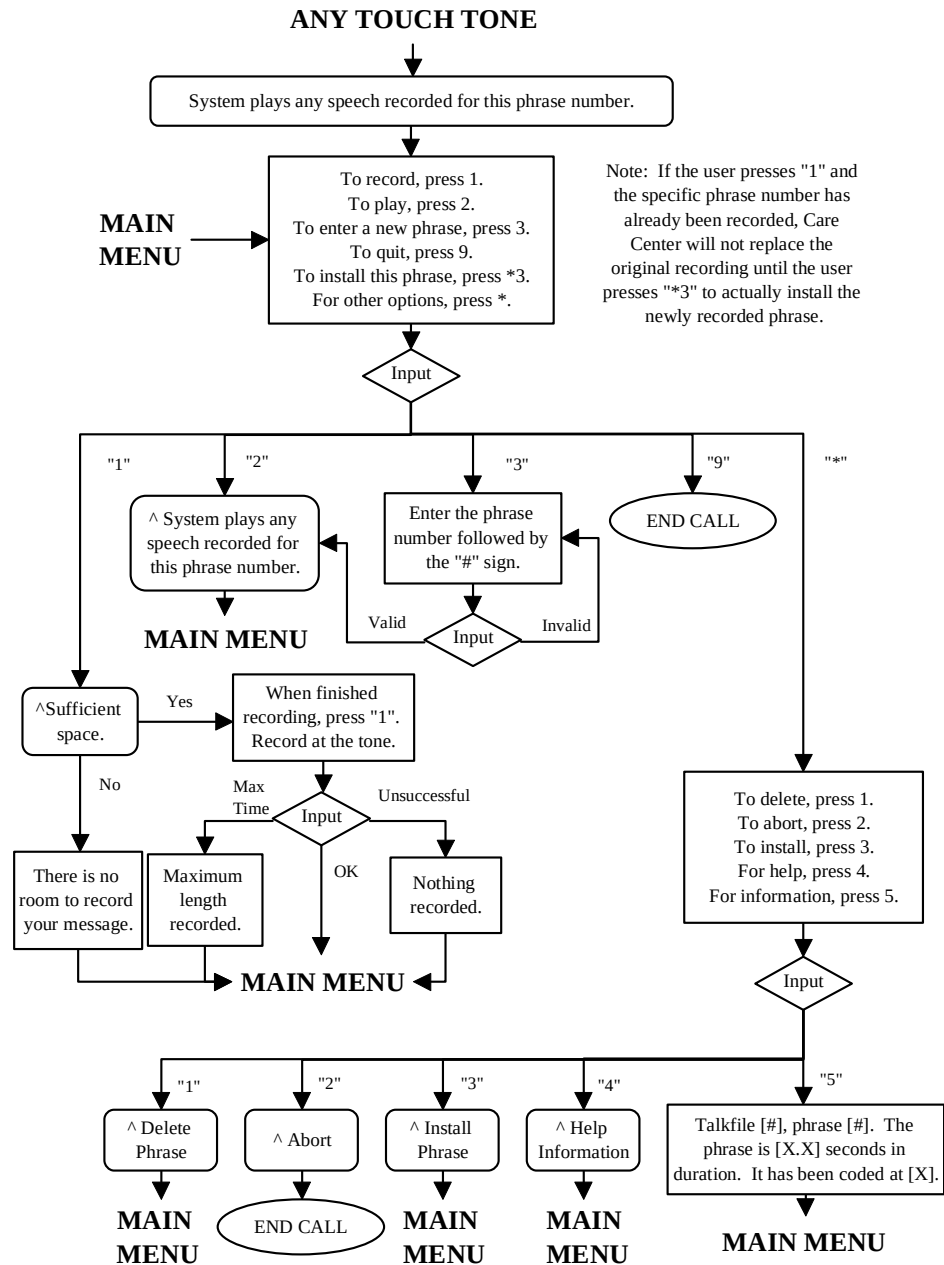


Figure 4-34. Option Tree for Recording, Playing, and Editing Speech

Adding a New Phrase



TIP:

After adding new phrases, generate the complete Phrase List before recording all of your speech. This way you can either view the phrases on the screen while recording or look at a printed copy.



NOTE:

The best way to create your applications is to record all of your speech before you create your vectors. When you use the ANNOUNCE, MENU, GET_SPCH and GET_DIALP actions, if you don't have a specific phrase recorded yet, you can press ADD-PHR to add a new phrase right from that dialog box. Even with the best of planning, you may find that you need additional phrases as you create and edit your vectors. Rather than going to Speech Administration to add the phrases, you can use the ADD-PHR key to add the phrases on the fly.

1. Choose Add New Phrase from the Select Phrase menu and press **ENTER**.

A phrase worksheet will appear, as shown in Figure 4-35. The system automatically assigns a phrase number. To replace the system-assigned phrase number, type a new one. Valid phrase numbers are from 10 to 65535.
2. At the Talkfile Number field, use CHOICES **F2** to select the Talkfile number for the language in which you wish to record the phrase.
3. Move with the directional keys to the heading Phrase Tag and enter a unique name.
4. Optionally, enter the exact words to be recited in the Phrase Text field.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 25, 1996
1 Customer      5      Add New Phrase to Talkfile 6104
Call Vector
>System Admi   Add a New Phrase          Recorded:
System Moni    Talkfile Number: 6104
UNIX System    Phrase Number: 147
Exit

Phrase Tag: _____
Phrase Text: _____

3 Sp
>Vector Phra
Mailbox Phr
Mailbox Sta
Standard Sp
Password Admini 6104|103|Press 1 for Announce, 2 for Msg Drp, 3 for....
Generate Phrase 6104|104|That was an invalid entry.. Please try again..
Change Base Lan 6104|105|That was an invalid entry
6104|106|Enter the mailbox number
6104|107|Enter the vector number to go to

Valid phrase numbers are 10-65535 that are not in use.
HELP CHOICES SAVE RECORD ENTER CANCEL REFRESH

```

Figure 4-35. Add New Phrase Form

5. Press RECORD **[F4]** to save and record this phrase.

A phrase recording form, shown in Figure 4-36, will appear.

⇒ NOTE:

When recording speech in SPCH_ADMN, you can advance faster than the prompts if you know what the next phrase will be. Press **[3]** to record the next phrase, enter the phrase number followed by the pound sign, and then start recording. For example, you have created a number of phrases and wish to record them. Generate and print the phrase listing. With this in front of you, select the phrase that you wish to record. When recording, refer to the phrase listing that you have printed. After recording that phrase, press **[3]** to select another phrase to record. Enter the next phrase number that you wish to record followed by the pound sign, **[#]**. You can interrupt the SPCH_ADMN announcements and record your phrase faster by pressing a touch tone. At the beep, record the next phrase. Continue these steps until all the phrases have been recorded.

6. Press CHOICES **[F2]** until the coding rate you want appears.

⇒ NOTE:

Pulse code modulation at 64 kbps (PCM64) offers the highest recording fidelity but demands the most hard disk storage. The default is ADPCM32. Other options include ADPCM16 and CELP16. CELP16 is the newest encoding algorithm from Lucent that provides very high quality with relatively small resulting speech file sizes. This requires an SSP card from Lucent Technologies.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 09, 1996
1 Customer 5 Add New Phrase to Talkfile 6104
Call Vector
>System Admi Add a New Phrase Recorded:
System Moni Talkfile Number: 6104
UNIX System Phrase Number: 1016
Exit Phrase Tag: Greeting
6 Record Phrase Number 1016 in talkfile Number 6104
Coding Rate: ADPCM32
Phrase Number: 1016
Talkfile Number: 6104
Phrase Tag: Greeting
Phrase Text: Welcome to the Customer Assist Care Center.
Enter the coding rate followed by the Return or ENTER key.
HELP CHOICES CLOSE DIAL ENTER CANCEL REFRESH

```

Figure 4-36. Phrase Recording Form

NOTE:

The following steps are optional and should be used only if you want to record the phrase at this time.

7. Press DIAL [F4].

The Dial Number form, shown in Figure 4-37, appears.

- a. After Telephone Number to Dial, enter the telephone number or extension, up to 16 digits, that the system must dial to reach your touch-tone telephone. Enter commas (,) or hyphens (-) to pause while dialing. Each comma corresponds to a ½-second delay, and each hyphen corresponds to a 2-second delay.

NOTE:

Commas and hyphens are not recognized when dialing over line-side (T1/E1) lines.



TIP:

If the Care Center packages are being configured remotely from a computer terminal outside of your call center, having the CONVERSANT call for recording speech may not work in instances where the outgoing call takes more than 16 digits. For example, if the number dialed is long distance (9 + area code + 7 digits) plus an accounting code of 6 digits (a total of 17 digits), then this feature will not work correctly. Remember that the telephone number or extension to dial can be up to 16 digits.

- b. After Dialing out on channel, enter the number of the CONVERSANT channel to use while recording.

The screenshot displays a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - September 09, 1996". The interface is divided into several sections. At the top, a header bar shows "7 Dial Number" and "file 6104". Below this, a form contains the following fields: "Telephone Number to Dial: 24141", "Dialing out on channel: 32", and "ed:". To the left of the main form is an "Exit" button. Below the header bar, another section is titled "6 Record Phrase Number 1016 in talkfile Number 6104". This section contains fields for "Coding Rate: ADPCM32", "Phrase Number: 1016", "Talkfile Number: 6104", "Phrase Tag: Greeting", and "Phrase Text: Welcome to the Customer Assist Care Center.". To the right of this section are buttons labeled "ter.", "transcribe", and "U". At the bottom of the window, a prompt reads "Enter the telephone number followed by the Return or ENTER key." Below this prompt are several buttons: "HELP", "LAUNCH", "ENTER", "CANCEL", and "REFRESH".

Figure 4-37. Dial Number Form

You can use any active, or in service, channel on the CONVERSANT system except those that ACD uses for standard announcements. Avoid using channels that are hard-allocated to other applications.

8. Press LAUNCH [E3] to place a call to your extension number.
9. Answer the call and press any touch-tone key.

By pressing a key, you signal the system to begin playing the phrase if it was recorded. The system then offers the option to replay, record, or rerecord, which allows you to record an existing phrase again, or to enter the phrase number of a new phrase to record. This last option permits you to record a number of phrases during the same call. Refer to your phrase listing for the phrase numbers to record and the associated speech.



NOTE:

Each phrase you record must be at least 1 second in duration.



NOTE:

If during the launch an error described as "Error -500 Message queue is busy" occurs, this is typically due to some other application on the CONVERSANT doing a lot of soft seizures on channels. This situation typically rectifies itself. Refer to "System Administration" on page 6-16.

10. Press [*] [3] to install phrases you record.

⇒ NOTE:

The Speech Administration script will be in the language that is currently the default. If this is not desired, you can change the base language in the Speech Administration menu. Otherwise, use the CHG_LANG action to change the desired language before the SPCH_ADM action.

Copying a Phrase

1. Choose Copy Phrase from the Select Phrase menu and press **ENTER**.

The Copy Phrase form, shown in Figure 4-38, will appear.

2. After From, enter the phrase tag you want to copy or press CHOICES **F2** for a list. After you press **ENTER F5**, its phrase number will appear.
3. After To, enter an available phrase tag.
4. Optionally, change the phrase number from the default to an unused phrase number.
5. Press **SAVE F3**.

⇒ NOTE:

Copying a phrase copies both the identity of the phrase as well as the actual recorded speech.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 25, 1996

Copy Phrase from Talkfile 6104

Phrase Tag	Phrase Number
From :	
To :	147

System Backup/Restore
Variable Administration

3 Speech

ADD NEW PHRASE
REMOVE PHRASE
COPY PHRASE

6104:1010:This is Ashraf's test vector....
6104:102:Vector Number
6104:103:Press 1 for Announce, 2 for Msg Drp, 3 for....
6104:104:That was an invalid entry.. Please try again..
6104:105:That was an invalid entry
6104:106:Enter the mailbox number
6104:107:Enter the vector number to go to

Enter the phrase to copy from.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 4-38. Copy Phrase Form

Editing a Phrase

1. At the Select Phrase menu, highlight the phrase you want to edit and press **ENTER**. The Phrase worksheet will appear.
2. Move with the directional keys to the item of information you want to change.
(Note that phrase and talkfile numbers cannot be edited.)
3. Make changes either to the phrase tag or phrase text.
4. Press **CLOSE** **F3** to save your changes

or

Press **RECORD** **F4** to save your changes and rerecord the speech associated with the phrase.

A phrase recording screen appears. Follow steps 5-9 under the heading "Adding a New Phrase".



NOTE:

Standard Speech contains phrases used primarily to speak numbers, times, estimated wait messages, etc. to callers. Mailbox Standard Speech contains standard phrases used in Message Drop for confirmation and for scheduling callbacks. Standard Speech phrases and Mailbox Standard Speech phrases may be rerecorded by your speech talent so that every phrase your callers hear is in a consistent voice. See "Administration of Phrases for Vectors, Mailboxes, and Standard Speech" on page 4-42 for more information on recording these again.

Removing a Phrase

Choose this option to remove phrases for vectors or mailboxes. You cannot remove standard speech phrases or mailbox standard speech phrases.



CAUTION:

Before removing a phrase, first remove all references to the phrase from your CONVERSANT vectors. If they are not removed, the vector will fail an integrity check during the Vector AUDIT or when vectors are placed in service.

1. Choose Remove Phrase from the Select Phrase menu in Figure 4-33 on page 4-43.
A menu of phrases will appear.
2. Move with the directional keys to highlight the name of the phrase you want to delete.

**CAUTION:**

You cannot recover a deleted phrase.

3. Press MARK **[F2]**.
4. To remove more than one phrase, return to step 2. To unmark a vector, highlight its name and press MARK **[F2]** again.
5. Press **[ENTER]**.
6. Press CANCEL **[F6]** to return to the previous menu.

Password Administration

To configure the system to prompt you for a password before recording speech:

1. Select Password Administration from the Speech Administration menu and press **[ENTER]**.

The Password for Speech Administration form, shown in Figure 4-39, will appear.

2. Enter a series of up to 16 touch-tone digits that callers must enter exactly to access the system's speech recording utility.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 25, 1996

1 Customer Assist Care Center
  Call Vector Configuration
  >System Administration
  System Monitor
  UNIX System
  Exit

2 System Administration
  Callback Messaging Administration
  Conversant Administration
  Custom Call Routing Administration
  Report Generation
  Report Scheduling
  >Speech Administration
  System Backup/Restore
  Variable Administration

3 Speech Administration
  Vector Phrase Administration
  Mailbox Phrase Administration
  Mailbox Standard Speech Administration
  Standard Speech Phrase Administration
  >Password Administration
  Generate Phrase List
  Change Base Language

4 Password for Speech Administration
  Password for Speech Administration: _____

Enter the password (1-16 digits) or leave blank if password is not used
HELP SAVE CANCEL REFRESH
  
```

Figure 4-39. Password for Speech Administration Form

**NOTE:**

To prevent the unauthorized recording of speech phrases, specify a password for Speech Administration and change it periodically.

Generate Phrase List

The phrase list provides a script for recording speech phrases.

1. Select Generate Phrase List from the Speech Administration menu to generate the phrase list report. Optionally, press PRINT **[F3]** for a printed copy.
2. The phrase list report appears, as in Figure 4-40.

The screenshot shows a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - September 25, 1996". On the left is a menu with options: 1 Customer, Call Vector, >System Admi, System Moni, UNIX System, and Exit. The "1 Customer" option is selected, leading to a sub-menu where "3 Sp" is selected. This leads to the "PHRASE LIST" screen. The screen displays the following information: "Customer Assist Care Center", "PHRASE LISTING", "MACHINE NAME: frolo", and "RUN Wed Sep 25 11:16:14 EDT 1996". Below this is a detailed report for a phrase with the following fields: Talkfile (6104), Phrase number (1000), Recorded (Y), Coding (ADPCM32), Seconds (5.6), Bytes (22396), and Blocks (2). The Phrase tag is "Rock Coast -Main Greeting". The Text field contains the phrase: "Thank you for calling Rock Coast Software. A representative will be with you shortly. Thank you for your patience." At the bottom, there is a prompt "Press the CANCEL function key to cancel." and a row of function keys: PRINT, PREUPAGE, NEXTPAGE, and CANCEL.

```
LUCENT TECHNOLOGIES Customer Assist Care Center - September 25, 1996
1 Customer 4 PHRASE LIST
Call Vector
>System Admi
System Moni
UNIX System
Exit

Customer Assist Care Center
PHRASE LISTING
MACHINE NAME: frolo

RUN Wed Sep 25 11:16:14 EDT 1996

3 Sp
Vector Phr
Mailbox Phr
Mailbox Sta
Standard Sp
Password Ad
>Generate Ph
Change Base

-----
Talkfile : 6104      Phrase number : 1000
Recorded  : Y        Coding : ADPCM32
Seconds   : 5.6      Bytes : 22396   Blocks : 2
Phrase tag : Rock Coast -Main Greeting
Text      : Thank you for calling Rock Coast Software. A repr
            esentative will be with you shortly. Thank you fo
            r your patience.
-----

Press the CANCEL function key to cancel.
PRINT PREUPAGE NEXTPAGE CANCEL
```

Figure 4-40. Phrase List

➤ NOTE:

Generate a complete Phrase List before recording all of your speech. This way you can either speak from it on screen or from a printed copy. This speeds up the process of recording your speech prompts because you don't need to exit out of speech administration multiple times. Instead, work from the Phrase List to record all phrases at once.

Changing the Base Language

This option allows the system administrator to change the base language that is used on the system. The base language is the default language used in scripts until it is changed in vectors using the CHG_LANG action.

1. Select Change Base Language from the Speech Administration menu.
Press **(ENTER)**.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 24, 1996

1 Customer Assist Care Center Call Vector Configuration >System Administration System Monitor UNIX System Exit	2 System Administration Callback Messaging Administration Conversant Administration Custom Call Routing Administration Report Generation Report Scheduling >Speech Administration System Backup/Restore Variable Administration
3 Speech Administration Vector Phrase Administration Mailbox Phrase Administration Mailbox Standard Speech Administration Standard Speech Phrase Administration Password Administration Generate Phrase List >Change Base Language	4 Change Base Language Base Language: 10 UK English Female

Enter the base language.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 4-41. Change Base Language Form

2. Press CHOICES **[F2]** and select one of the installed languages as the base language.

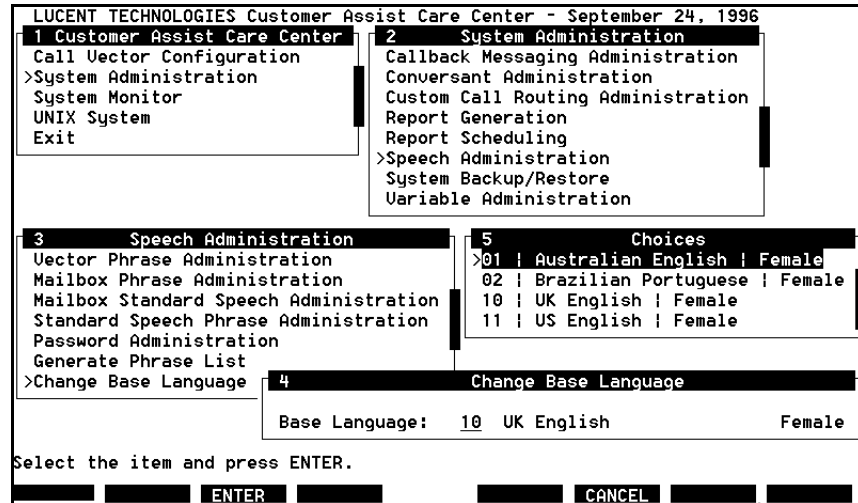


Figure 4-42. Base Language Choices

3. Press SAVE **[F3]** to save the configuration.

Variable Administration

To add or edit a variable name or remove a variable from the list of choices, choose from the following options (shown in the Variable Administration menu in Figure 4-43):

- ADD NEW VARIABLE
- REMOVE VARIABLE
- The name of each variable you can edit (by highlighting the variable name and pressing **[ENTER]**).

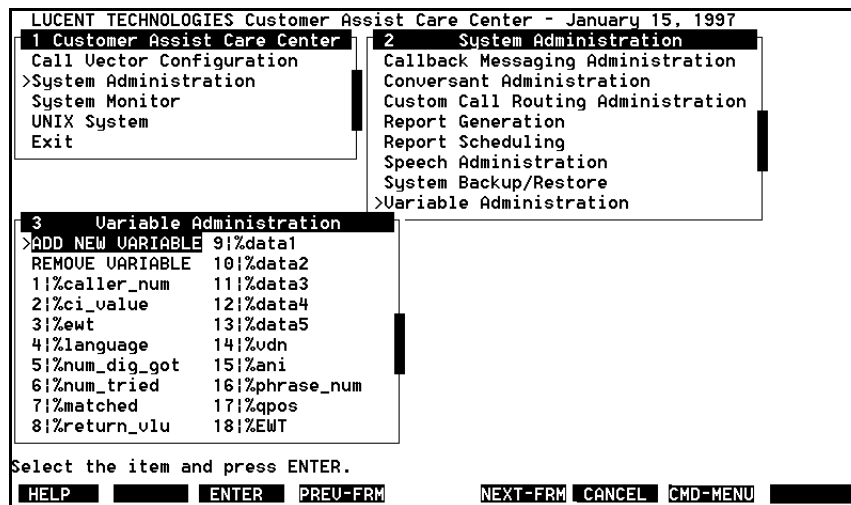


Figure 4-43. Variable Administration Menu

Adding a Variable

Use this option to add a variable name to the list. Care Center can accommodate 42 variables. It has 13 pre-set variables, and you can add 29 custom variables with names up to 11 characters in length.

1. Choose ADD NEW VARIABLE from the Variable Administration menu.
2. In the form that appears, enter a unique name for your variable and press SAVE [F3].

Removing a Variable

Use this option to delete from the system those variables you no longer need.

CAUTION:

The first 13 variables may not be deleted because they are used in actions or templates. Before removing a variable, be sure to remove or rename every occurrence of that variable's name in your vectors; otherwise, the system will provide a warning prior to placing vectors in service. Use the Vector Detail report to determine which variables your vectors use.

1. Choose REMOVE VARIABLE from the Variable Administration menu and press [ENTER]. A list of user-defined variables will appear.
2. Use the directional keys to highlight the name of the variable you want to delete, or type its number. Press MARK [F2].

3. To remove more than one variable, return to step 2. To unmark a variable, highlight its name and press MARK **F2** again.
4. Press **ENTER**.

Editing a Variable

Use this option to change a variable's name.



CAUTION:

The first 13 variables may not be edited because they are used in actions or templates. After changing a variable's name, be sure to replace occurrences of the old variable name in your vectors with the new variable name; otherwise, the system will provide a warning prior to placing vectors in service. Use the Vector Detail report to determine which variables your vectors use.

1. At the Variable Administration menu, highlight the variable name you want to edit and press **ENTER**.
2. Type a new name.
3. Press SAVE **F3** to save your changes.

Callback Messaging Administration

This menu, shown in Figure 4-44, provides options for creating and administering mailboxes, establishing parameters for accepting messages from callers, and managing the way Care Center notifies agents of new messages. The options fall under three general categories:

- Mailbox Administration
- Mailbox Global Settings
- Agent Callback Hours

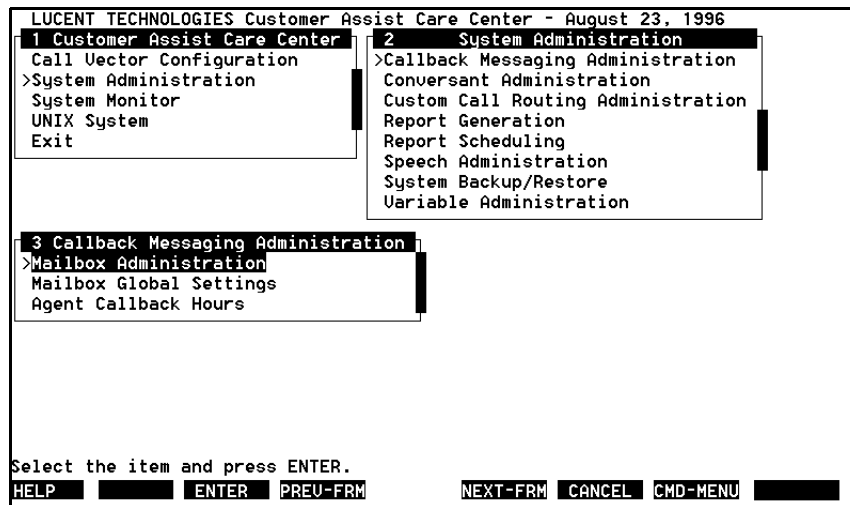


Figure 4-44. Callback Messaging Administration Menu

Mailbox Administration

To add or edit a mailbox you have already created, to copy an existing mailbox, or to remove a mailbox from the database, choose from the following options (shown in the Mailbox Administration menu in Figure 4-45):

- CREATE NEW MAILBOX
- REMOVE MAILBOX
- COPY MAILBOX
- The number of each mailbox you can edit (by highlighting mailbox number and pressing **ENTER**).

```

LUCENT TECHNOLOGIES Customer Assist Care Center - August 28, 1996
1 Customer Assist Care Center
>Call Vector Configuration
>System Administration
  System Monitor
  UNIX System
  Exit

2 System Administration
>Callback Messaging Administration
  Conversant Administration
  Custom Call Routing Administration
  Report Generation
  Report Scheduling
  Speech Administration
  System Backup/Restore
  Variable Administration

3 Callback Messaging Administration
>Mailbox Administration
  Mailbox Global Settings
  Agent Callback Hours

4 Select Mailbox
>CREATE NEW MAILBOX
  REMOVE MAILBOX
  COPY MAILBOX
  101!HangUp Test 1
  102!HangUp Test 2
  168!Highway 168
  169!Highway 169
  2112!Dale Test 1
  2113!Ash Test 1
  5150!Dale Test 2
  9001!Ashtest 1
  9002!Ashtest 1 COPY
  9010!ash 1
  9990!ashtest new admMbox
  9992!ashtest 2

Select the item and press ENTER.
[HELP] [ENTER] [PREV-FRM] [NEXT-FRM] [CANCEL] [CMD-MENU]

```

Figure 4-45. Mailbox Administration (Select Mailbox) Menu

Creating a New Mailbox

Use this option to create a mailbox and choose phrases to prompt callers for input. Since a single mailbox can store many messages, add new mailboxes only to prompt callers for different items of information, to distinguish their responses from those in other mailboxes, or to send messages to different groups of agents.

1. Choose CREATE NEW MAILBOX from the Select Mailbox menu.
2. Each time you create a mailbox, specify the following in the Create New Mailbox form, shown in Figure 4-46:
 - Mailbox name: Enter any name up to 24 characters long.
 - Mailbox ID: A unique number to use with the MSG_DROP and TRANSCRIBE actions to deliver callers to this mailbox. Care Center uses this number only as an identifier for the mailbox you define, not as a telephone extension.
 - Mailbox password: A number that agents can be required to enter before they can transcribe the contents of this mailbox. Leave this space blank to disable the optional password access.
 - Mailbox priority: A number between 0 and 5, where 5 represents the highest priority. The system uses this value to decide from which mailbox to deliver messages to an agent first. Eligible messages in different mailboxes are given the same priority if they share the same mailbox priority code.

**TIP:**

As long as there are messages in a mailbox with a higher priority, those messages will be delivered before all other messages in mailboxes with lower priority. Therefore, calls should only be directed to priority mailboxes if they should receive precedence over other messages.

- Talkfile: Use CHOICES [F2] to choose the language of the Mailbox Phrase talkfile that contains the prompt phrases.
- Transcriber welcome phrase: Enter the name of the phrase played to identify this mailbox for transcribers.
- Agent access number: The extension or VDN to dial to deliver a message to an agent. If the mailbox does not require callback services, leave this field blank.
- Treat as outside number: Choose yes or no to decide whether or not to treat the agent access number as an outside number.

LUCCENT TECHNOLOGIES Customer Assist Care Center - December 23, 1996

5 Create New Mailbox

Mailbox name: _____ Mailbox ID: _____
 Mailbox password: _____ Mailbox priority: 0
 Talkfile: 6105 US English

CALLBACK
 Transcriber welcome phrase: _____

Agent access number: _____ Treat as outside number? No
 Outside line access code: 9 Country code: _____
 Time to wait for answer: 20 Message retry interval: 1
 Use Dial Pulse Recognition: No Use Speech Recognition: No

NOTIFICATION AND ALARMS
 Message Waiting Lamp extension: _____
 Alarm if
 Message age exceeds Minutes: _____ Hours: _____ Days: _____
 Max number of messages exceeds: _____
 Forward messages into mailbox: _____

Enter the mailbox name.

HELP INSERT REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS

Figure 4-46. Create New Mailbox Form

- Outside line access code: The touch tones that the CONVERSANT must dial for a public-network dial tone (for example, "9").

⇒ NOTE:

In the U.S., Care Center automatically sends the number "1" before long-distance numbers it dials through the switch,

even if the DEFINITY switch is already configured to dial “1” before long-distance numbers. Standard safeguards stop the DEFINITY from accidentally dialing “1” twice.

- **Country code:** The number entered here is the country code that should precede phone numbers during caller callbacks. If a country code is used in a mailbox, this signifies that the mailbox will ONLY be launching outbound callbacks to one country. If callers from different countries will be leaving messages in one mailbox, then the Country Code field should not be filled out since callbacks will be made to multiple countries. If callers from different countries will be leaving messages, another option is to create a different mailbox for each country and then indicate that country's country code in that mailbox's Country Code field.

 NOTE:

Information captured in Portion (discussed under “Data Configuration form” on page 4-64) will override the Country code setting here. Information entered in Country code will overwrite information in the Dial Plan.

- **Time to wait for answer:** The length of time in seconds that the callback service waits after dialing the Agent Access Number for an agent to answer (assuming the DEFINITY G3 does not immediately return busy.) This setting can be up to 9999 seconds. Set this number to a maximum number of seconds that exceeds average queue time of the destination split if you want messages to be queued for an available agent. By default, the Callback Messaging package retrieves a call from a VDN or hunt group after either a busy signal or after four ring cycles.

 NOTE:

Because messages delivered in intelligent mode look for speech energy to begin transcription, if directing messages to a VDN or hunt group extension to queue for an available agent, you must administer call treatment to play ringing or silence to the queued message.

Alternatively, you can set the Force Press 1 for agent callback pickup (found on the Global Settings form) to “Yes,” in which case the message callback waits for a touch-tone input to begin transcription. In this case, music and announcement treatment in queue do not affect message delivery.

- **Message retry interval:** Enter the interval (in minutes) to wait, after first contacting an agent with a message and making each subsequent attempt. By setting a message retry time, you prevent the system from continuously presenting the same message to agents. Care Center begins each attempt by dialing a VDN that

points to a DEFINITY vector that assesses agent availability. Refer to the *Lucent DEFINITY ECS R5 Call Vectoring/EAS Guide*, 555-230-521.

A message becomes eligible for retries as long as it is in ready state (in other words, not saved, not deleted, or not currently in transcription). A message becomes ineligible after the system actually saves or deletes it. For example, if an agent chooses to “launch and delete” a message but disconnects before reaching the caller who left the original message, the system will try to contact an agent as frequently as the message retry interval allows.

⇒ NOTE:

If a schedule segment is used by either the caller or agent or both, the Message retry interval will overwrite the scheduled time for callback. The retry interval will be the time heard by the agent in transcription. To preserve the requested callback time for subsequent transcribers, agents should consider using the Prepend option to record the requested callback time and any information about the callback attempt.

- **Use Speech Recognition:** Enter Yes to use Speech Recognition to collect input in Data and Schedule Segments. Note that Speech Recognition is only available for dropping messages, not for transcription.

⇒ NOTE:

Speech Recognition and Dial Pulse Recognition can be used concurrently.

- **Use Dial Pulse Recognition:** Enter Yes to use Dial Pulse Recognition to collect input in Data and Schedule Segments. Note that the Dial Pulse Recognition is only available for dropping messages, not for transcription.

⇒ NOTE:

Speech Recognition and Dial Pulse Recognition can be used concurrently.

- **Message Waiting Lamp extension:** The telephone extension of the agent to notify of new messages. Care Center will light the message waiting lamp on the Lucent Technologies telephone associated with this extension. Leave this space blank to disable the message waiting lamp feature.

⇒ NOTE:

If defined, message waiting lamp extensions are lit whenever a mailbox contains a “ready” message. Ready messages

include messages set for immediate callback, and scheduled for later callback.

 NOTE:

Whenever a message is left in a mailbox, Care Center immediately lights the corresponding message waiting lamp, if defined. Whenever all messages are deleted out of a mailbox, Care Center immediately extinguishes the corresponding message waiting lamp, if defined. Care Center also does a “master check” every 30 minutes to make sure that all mailboxes have their corresponding message waiting lamps either on or off by resending the FAC to actually turn the light on or off.

- **NOTIFICATION AND ALARMS:** To activate this option, you may define parameters for the following:
 - **Message Age Exceeds:** The maximum number of days, hours, or minutes messages can be in a mailbox. After that time, they are sent to an overflow mailbox. You can define each time element separately or together. For example, you can enter: 2 days 10 hrs 00 mins, 0 days 18 hrs 20 mins, or 0 days, 0 hours, 30 mins. If no time is designated, the alarm is turned off. Enter the numbers in the range of 0-99
 - **Max Number of Messages Exceeds:** When the number of messages (a number up to 5 digits) exceeds the maximum number allowed, the system will forward the oldest messages to an overflow mailbox.
 - **Forward Messages into Mailbox:** The system will automatically forward aged messages and overflow messages into this mailbox when the age or maximum number threshold is exceeded. An alarm warning message, stating the alarm condition, is appended to the forwarded messages. These messages are not administrable.

To create an alarm mailbox, follow the same steps as for creating a new mailbox. You may assign a mailbox password a message waiting lamp extension, or callback destination. Enter the Mailbox ID number of the alarm mailbox.

3. Press the PAGEDOWN key to move to the Pieces Grid form shown in Figure 4-47. From this form, you can set up your message segments or “prompts” for information from the caller. Up to 15 segments of information can be defined for one message.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 09, 1996

5 Create New Mailbox

Message closing phrase:
Goodbye.

Segment	Type	Identity Tag
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

6 Choices

>Data
Inform
Record
Sched

Select the item and press ENTER.

ENTER CANCEL

Figure 4-47. Pieces Grid Form

- Message closing phrase: Select a valid message closing phrase, from the CHOICES menu. Use the arrow keys to make a choice and press **ENTER**.

For more information about recording phrases for Callback Messaging, see "Administration of Phrases for Vectors, Mailboxes, and Standard Speech" on page 4-42.

- Type: Select a type of response: Data, Inform, Record, or Schedule for each message segment.
 - Data-type response allows you to collect touch-tone, speech recognition, or dial pulse information from the caller, such as an account number, ID, or callback telephone numbers.
 - Inform-type response provides information to the caller without asking for input.
 - Record-type response allows you to prompt the caller to speak information—such as name, address, or reason for call and to record the caller's speech.
 - Schedule-type response prompts the caller for a requested callback time, if appropriate.

Data Configuration form. When a data-type response is selected, a Data Configuration form appears. All options can be entered or selected with CHOICES **F2**.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - January 26, 1997
5 Create New Mailbox
> Message closing phrase:
7 Data configuration for mailbox 001, segment 1

MESSAGE DROP OPTIONS:
Phrase tag:
Response limits: Minimum: 0 Maximum: 24
Have caller confirm? No
Segment required to save message? No

TRANSCRIPTION OPTIONS:
Play back to transcriber? Yes
Display field? None
Treat as phone field? No Portion: Whole
Enable automatic launch? No Message treatment: None

INPUT OPTIONS:
Passed parameter? No Argument:

Select the phrase tag that the caller will hear.
HELP CHOICES CLOSE CANCEL REFRESH

```

Figure 4-48. Data Configuration Form

- **Phrase tag:** Select a valid phrase that will be spoken for this segment using CHOICES [F2]. For example, "Enter your 12-digit account number." Use the directional keys to make a choice and press [ENTER].

NOTE:

Select a voice prompt even if you are using a passed parameter (see Passed Parameter page 4-69).

For more information about recording phrases for Callback Messaging, see "System Administration" on page 4-41.

- **Response limits:** Enter the minimum and maximum number of digits a caller can enter. A maximum of 24 digits can be defined for any data-type segment. However, if the data-type segment is treated as a display field (see following description), the DEFINITY vector can only accept up to 16 digits in a single collect step, therefore 16 digits should be the maximum allowed for this particular type of data-type response field. The maximum number of digits for data segments that are treated as phone fields (see following description), depends on the dialing plan.

The system allows the caller a configurable number of tries to input the correct number of digits. The default is three tries. (For information on the setup see "Mailbox Global Settings" on page 4-75.) On the third try, the system will either skip to the next question or not save the message. This depends on how you define the Segment required to save message parameter, as

described below. For example, if the Segment required to save message field is set to Yes and if the caller does not enter correct information within the allotted number of tries, the message is not saved and the MSG_DROP action step continues and/or vector processing continues.

⇒ NOTE:

Callers cannot delay more than 5 seconds before entering the first digit of their touch-tone response, and they cannot delay more than 5 seconds between digits

⇒ NOTE:

If you are using Speech Recognition in the data segment, the Speech Recognition grammar for collecting user input depends on the minimum and maximum length of possible input for the segment. Care Center will use the most restrictive grammar possible to improve the accuracy of the recognition.

⇒ NOTE:

If using Dial Pulse Recognition in the data segment, Care Center will use the most restrictive grammar possible to improve the accuracy of the recognition.

- Have caller confirm: If you want callers to confirm their input, or passed parameter (see definition below), select Yes.
- Segment required to save message: If the segment is required to save the message, select Yes. Care Center will not save a message, unless the caller successfully completes all segments required to save the message. The system will prompt the caller for a valid response as many times as configured before skipping to the next question or not saving the message. (For information on the setup, see "Mailbox Global Settings" on page 4-75.)

If Care Center is using speech recognition or dial pulse recognition and the caller's input for a specific data segment could not be understood, Care Center will change its input method to recording speech and inform the caller of such action. Also, if the caller fails in the input attempt and if the input was then recorded, Care Center only records for that segment. For example, if in segment one, Care Center asks for the area code and the caller's speech input was not understood, Care Center will ask the caller to record the spoken area code. In the next segment when Care Center asks for the subscriber phone number, it will try to collect it using speech recognition. Only if Care Center fails to gather speech or dial pulse input will it record this segment as well.

- Play back to transcriber: Select Yes to have the caller's response played back to the agent during transcription.

- **Display field:** When this option is enabled by selecting `Internal`, the touch-tone information stored in this segment is sent to a collect step in a DEFINITY vector and routed to an agent's phone extension during callback. This information can be viewed on the agent's telephone display by pressing the `CALLER INFO` button on the display telephone before answering a call.

If this option is enabled by selecting `External`, the information is sent while the callback is being launched to the caller who left the message. When Care Center detects an auto attendant on the main switch at the location of the caller that left the message, Care Center sends this data segment *externally* to that switch. The segment is sent as touch tones so that switch can connect the agent directly to the caller that left the message.

For example, the caller leaves their main switch phone number in one data segment and also leaves their extension number. Upon callback, Care Center will dial the caller's main switch number, and when that switch answers, Care Center will then send the second segment, the extension number, *externally* to that caller's switch to connect the agent directly to the caller.

 NOTE:

You can set only one data segment's display field as `Internal` in a 15-part voice form. Likewise, you can set only one data segment's display field as `External` in a 15-part voice form.

- **Treat as phone field:** When this option is enabled by selecting `Yes`, the system uses the number to launch an automatic callback when the agent selects a launch option in transcription or when the `Enable automatic launch` option is selected.
- **Portion:** This indicates the portion of the caller's phone number that is collected. Options include:
 - `Internal` - This indicates the value is an internal phone number as viewed by the switch. It will dial the number as is without any other number before or after it.
 - `Subscriber` - This indicates the value is a local phone number.
 - `Area code` - This indicates the value is an area code or city code.
 - `Country code` - This indicates the value is a country code. The value will overwrite the value in the `Country code` field for this mailbox for this one specific message.
 - `Whole` - This indicates the value is a local number with or without a city/area code. This option can be used only if the dial plan is built with fixed length phone numbers. Country code cannot be collected in this field.

 NOTE:

After all of these portions, or return phone number segments have been entered, Care Center concatenates (combines) these in a coherent fashion to allow agents to launch an outbound callback to the caller leaving the message.

Combinations of Portion allowed include the following:

- Internal (alone)
- Subscriber (alone)
- Whole (alone)
- Area Code and Subscriber
- Country Code, Area Code and Subscriber
- Country Code and Subscriber
- Country Code and Whole

Any other combinations are not allowed.

 NOTE:

In countries with fixed length phone numbers, the Whole Portion option should be used. Fixed length format allows the Dial Plan to locate the area code out of the phone number. If the country has variable length format, the phone number has to be collected in separate segments using Subscriber, Area code, and possibly Country code Portions. The Country code portion is only needed if messages in a mailbox contain phone numbers for different countries.

- Enable automatic launch: Select Yes to have the system launch an automatic callback upon reaching this segment if the data segment is a phone field.

 CAUTION:

This feature will not work when an agent is conversed from the DEFINITY into Care Center. For example, if an agent dialed a VDN that conversed the agent to a CONVERSANT vector with a TRANSCRIBE action to transcribe messages, this feature would not be able to automatically launch an outbound call.



TIP:

Care Center can deliver messages to remote agents as well as internal agents. Any agent can also dial into a mailbox and transcribe messages directly. In either case, the agent launches the callback as “launch and save” or “launch and delete.” The message will, therefore, be saved or deleted when the CONVERSANT call conference time (the time in seconds

that the CONVERSANT will be conferenced with the agent during the callback) expires. If the CONVERSANT call conference time did not expire because the call ended prematurely or if the agent did not connect with the caller, the message status stays READY unless the agent presses *99 to classify the callback as a success or a failure.



CAUTION:

Whenever a remote agent launches a callback and is connected to a caller, the CONVERSANT must always be conferenced on the call. This is done by setting the CONVERSANT call conference time as high as possible, such as one hour. If the CONVERSANT call conference time expires, both the caller and the remote agent will be dropped off the call.

- **Message treatment:** This option allows you to define the default to Save or Delete the message if the conference time expires in the Enable automatic launch mode. If auto launch is not enabled, Message treatment should be set to None.
- **Passed parameter:** A caller's input can be treated as a passed parameter to be imported into a message. For example, you can use auto-import fields, if available, for ANI, VDN, or account numbers. Up to three arguments can be passed into a callback messaging message. Only one of these three arguments can be passed into any one data segment. Therefore, if three arguments were to pass into a message, then three data segments would be required.

The phrase tag is not spoken when a passed parameter is used, unless the passed parameter field is null.

Select Yes to accept the value as a passed parameter.



NOTE:

Once confirmation phrases are defined for parameters A, B, and C, the system will use these phrases every time these parameters are passed. Therefore, you should select standard phrases that can be used across mailboxes. For example, you can assign the confirmation phrase for ANI to parameter A and use the phrase in all mailboxes defined to pass this parameter.

- **Argument:** Optionally, press CHOICES **[F2]** to select **A** for the first argument, **B** for the second argument or **C** for the third argument. The argument letters defined here should match the argument letters defined in the MSG_DROP action-definition form in order for the mailbox to use the value. If you previously selected to have the caller confirm the message, the caller is prompted to verify the passed value (see "MSG_DROP Action" on page 3-33.)

- Select CLOSE [F3] to add the segment and return to the mailbox form.

Information Configuration Form. The Information Configuration Form allows you to select an informational phrase to play for the caller.

⇒ **NOTE:**

Use CHOICES [F2] to select a phrase for an announcement.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 09, 1996

5 Create New Mailbox

Message closing phrase:
Goodbye.

Segment	Type	Identity Tag
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

7 Information Configuration for mailbox 1001, segment 1

MESSAGE DROP OPTIONS:
Phrase tag: _____

Select the phrase tag that the caller will hear.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 4-49. Information Configuration Form

Schedule Configuration form. When a schedule-type response is selected, a Schedule Configuration form appears with options (see Figure 4-50). All options can be entered or selected with CHOICES [F2].

- **Phrase tag:** Select a valid phrase that will be spoken for this segment using CHOICES [F2]. For example, "To receive a callback immediately, Press 1. To receive a callback later today, Press 2." Use the directional keys to make the selection and press [ENTER].

⇒ **NOTE:**

The allowed options for scheduling callbacks are global to all mailboxes and are set in the Mailbox Global Settings form. The prompt verbiage in Schedule segments should reflect the options allowed in the global settings.

For more information about recording phrases for Callback Messaging, see "Administration of Phrases for Vectors, Mailboxes, and Standard Speech" on page 4-42.

- Have caller confirm: To have the caller confirm the response, select Yes.
- Segment required to save message: If a valid caller response to the segment is required to save the message, select Yes. Only those inputs that meet the criteria are acceptable. If input does not meet the criteria, the message is not saved.

NOTE:

Automated scheduling of messages should not be provided as an option to the caller if call-in (and not callback) is the intended method for transcription. For call-in transcription mailboxes, consider prompting the caller to record a requested callback time instead of using scheduled callback.

- Play back to transcriber: Select Yes to have the caller's response played back to the agent during transcription.
- Select CLOSE [F3] to add the segment and return to the mailbox form.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 09, 1996

5 Create New Mailbox

Message closing phrase:
> Goodbye.

Segment	Type	Identity Tag
1		
2		
3		
4		
5		
6		

7 Schedule configuration for mailbox 1001, segment 1

MESSAGE DROP OPTIONS:
 Phrase tag: _____
 Have caller confirm? No
 Segment required to save message? No

TRANSCRIPTION OPTIONS:
 Play back to transcriber? Yes

Select the phrase tag that the caller will hear.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 4-50. Schedule Configuration Form

Record Configuration form. When a record-type response is selected, a Record form appears (see Figure 4-51). All options can be entered or selected with the CHOICES [F2].

- Phrase tag: Select a valid phrase that will be spoken for this segment using the CHOICES [F2]. For example, "Record your name and address." Use the directional keys to make the selection and press [ENTER].

For more information about recording phrases for Callback Messaging, see "Speech Administration" on page 4-42.

- **Response limits:** Enter the minimum and maximum number of seconds, up to 600, to allow.

NOTE:

The system will not recognize verbal responses less than 1 second in duration. Also, as soon as a caller finishes entering a response, the caller may press "1" to move to the next segment.

- **Recording quality:** Select High to record a spoken response at a high rate of 32-kbps ADPCM. Select Low to record a spoken response at a low rate of 16-kbps ADPCM.
- **Have caller confirm:** To have the caller confirm the recorded input, select Yes. If the optional dial pulse recognition software or speech recognition software for Care Center is loaded, then the caller can confirm their input by using those options.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 09, 1996

Create New Mailbox

Message closing phrase:
Goodbye.

Segment	Type	Identity Tag
1		
2		

Record configuration for mailbox 1001, segment 1

MESSAGE DROP OPTIONS:

Phrase tag: 15

Response limits: Minimum: 3 Maximum: 15

Recording quality: Low

Have caller confirm? No

Segment required to save message? No

TRANSCRIPTION OPTIONS:

Play back to transcriber? Yes

15

Select the phrase tag that the caller will hear.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 4-51. Record Configuration Form

- **Segment required to save message:** If the segment is required to save the message, select Yes. If this segment is set to be confirmed by the caller, the caller will be informed that a valid response to this segment is required. Only those inputs that meet the criteria are acceptable. If input does not meet the criteria, the message is deleted.

- Play back to transcriber: Select Yes to have the caller's response played back to the agent during transcription.
- Select CLOSE **[F3]** to add the segment and return to the mailbox form.



NOTE:

The INSERT **[F2]** key is available to add prompts in the middle of message segments.



CAUTION:

Be careful not to insert or delete prompts in the mailboxes containing new or saved messages. Caller input to some segments of the messages then will be unrecoverable.

Copying a Mailbox

Use this option to copy the configuration of one mailbox into a new a mailbox.

1. At the Select Mailbox menu, highlight Copy Mailbox and press **[ENTER]**.
2. Enter the ID of the mailbox to copy from, or press CHOICES **[F2]** to get a list of valid mailboxes. Press **[ENTER]**.
3. In the To field enter a new ID and new mailbox. Press **[ENTER]**.
4. Enter the name of the new mailbox. Press **[ENTER]**.



NOTE:

The new mailbox ID cannot already exist.

Removing a Mailbox

Use this option to delete from the system those mailboxes that you no longer need. When you delete a mailbox, you delete any messages in the mailbox, as well as any messages that have been forwarded from the mailbox. The system will provide a warning and option to abort this procedure if messages exists.



CAUTION:

This process deletes messages that have been forwarded from the mailbox because forwarded messages use the original message structures for transcription. Forwarded messages cannot be retrieved after the original mailbox is deleted.

1. Choose Remove Mailbox from the Select Mailbox menu and press **[ENTER]**. A menu of mailbox numbers will appear.
2. Use the directional keys to highlight the number of the mailbox you want to delete or type its number. Press MARK **[F2]**.

3. To remove more than one mailbox, repeat step 2. To unmark a mailbox, highlight its name and press MARK **[F2]** again.
4. Press **[ENTER]**.



NOTE:

Before removing a mailbox, be sure to transcribe its messages completely in order to turn off the message waiting lamp on the original agent's telephone. If the mailbox has messages, it will list the messages to allow you to cancel mailbox removal.

Editing the AUDIT Mailbox

The Care Center Callback Messaging package automatically performs an hourly analysis of space on the CONVERSANT hard disk drive available for message speech. Use the AUDIT mailbox to alarm an agent when available space is less than or equal to 5 percent of the space originally allotted to speech. This is important so that new messages being left for agent callbacks are saved and that the room left on the CONVERSANT hard drive doesn't fill up completely.

Although the system creates this mailbox automatically, you must select it and follow the same steps for editing a mailbox to specify an Agent Access number and, if you wish, a mailbox password and a message waiting lamp extension. To activate the Agent Access feature, you must administer global mailbox settings.



NOTE:

Since the AUDIT mailbox relies on delivering messages to agents when the available speech falls below the 5 percent threshold, be sure to also establish global mailbox settings and agent callback hours.

Editing a Mailbox

Use this option to change all the various features of a mailbox, except the mailbox number.

1. At the Select Mailbox menu, highlight the mailbox you want to edit and press **[ENTER]**.
2. Use the directional keys to move to each item you want to change. (You cannot edit mailbox numbers.)
3. Press CLOSE **[F3]** to save your changes.



NOTE:

The INSERT **[F2]** key is available to add prompts in the middle of message segments.



CAUTION:

Be careful not to insert or delete prompts in the mailboxes containing new or saved messages. Caller input to some segments of the messages then will be unrecoverable.

**NOTE:**

Before changing a mailbox's message waiting lamp extension, be sure to transcribe its messages completely in order to turn off the message waiting lamp on the original agent's telephone.

Mailbox Global Settings

Use this screen, shown in Figure 4-52, to stipulate how the system should notify agents of messages.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - January 16, 1997
1 Customer Assist 4 Global Settings for All Message Drop Mailboxes
Call Vector Confi
>System Administra
System Monitor
UNIX System
Exit

3 Callback Message
Mailbox Administr
>Mailbox Global Se
Agent Callback Ho

Specify the Global Parameters for Message Drop
AGENT ACCESS
Channel access time: 1
Access channel(s): 1
Force 'Press 1' for agent callback pickup: Yes

MESSAGE PLAYBACK
Speak transcription segment numbers: Yes
Play message header information: A
Number of confirmation chances: 2
Time format: 12 hour clock.

CUSTOMER CALLBACK
Allow agents to reschedule? Yes
Scheduling options:
Immediately: Yes Later today: Yes Later date: Yes
Callback conference time: 30
Allow agents to classify callbacks? Yes

Enter "AUTO" to monitor constantly or minutes between tries in calling agents.
HELP CHOICES CLOSE ENTER CANCEL REFRESH

```

Figure 4-52. Mailbox Global Settings Form

1. Choose Mailbox Global Settings from the Callback Messaging Administration menu.

A list of parameters, shown in Figure 4-52, will appear.

2. You may change the parameters as follows:
 - Channel access time: AUTO or 1-999 (the number of minutes between message attempts.) Use the default value, **1** (minute) to check the system for new messages every minute and refresh message waiting lamps every 30 seconds. You may change the default value from **1** (minute) through **999** (minutes) to extend the interval between message attempts to seize an available channel for callback. Enter **AUTO** to check after each new message is left. Please recognize that a very short retry interval may monopolize the CONVERSANT Agent Access channel you assign (see next item). Press CHOICES **F2** to cycle through responses.

⇒ NOTE:

If the AUTO callback mode is selected, callback will tie up all available Agent Access channels as long as there are messages in the mailboxes. Therefore you should consider hard allocating access channels for callback and not directing inbound calls to those channels.

⇒ NOTE:

Whenever a message is left in a mailbox, Care Center immediately lights the corresponding message waiting lamp, if defined. Whenever all messages are deleted out of a mailbox, Care Center immediately extinguishes the corresponding message waiting lamp, if defined. Care Center also does a 'master check' every 30 minutes to make sure that all mailboxes have their corresponding message waiting lamps either on or off by resending the FAC to actually turn the light on or off.

- **Access channel(s):** The number or number range of the CONVERSANT channels to use to dial the Agent Access Number to deliver a message to an agent. You can use any active channels on the CONVERSANT system except those used by the ACD for standard announcements. Avoid using channels that are hard-allocated to other applications. Use commas (,) to separate numbers in a series; use hyphens (-) to separate numbers in a range.
- **Force "Press 1" for agent callback:** This field should be set to Yes if blind delivery of messages to agents is used. If intelligent delivery of messages to agents is used, it can also be set to Yes if there are problems in detecting speech energy. Blind delivery of messages is normally used when the delivery is to an agent group/split/VDN that has either announcements or music on hold. If intelligent delivery of messages is used, it would result in the playback of the caller's message upon encountering those announcements or music on hold.
- **Speak transcription segment numbers:** If set to Yes, Care Center plays the segment number to the agent before playing the caller's response for that segment.
- **Play message header information:** Use CHOICES F2 to select A, M, D, d, T, t, or N to choose message playback options. See figure below for descriptions of playback options.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - January 23, 1997
1 Customer Assist 4 Global Settings for All Message Drop Mailboxes
Call Vector Confi
>System Administra Specify the Global Parameters for Message Drop
System Monitor AGENT ACCESS
UNIX System Channel access time: 1
Exit Access channel(s): 1
Force 'Press 1' for agent callback pickup: Yes

MESSAGE PLAYBACK
Speak transcription segment numbers: Yes
Play message header information: A
Number of confirmation chances: 2
clock.

5 Choices
>A : All header information is played
M : Message number only is played
D : Date and message number are played
d : Date only is played
T : Time and message number are played
t : Time only is played
N : No header information is played

Schedule? Yes
Later today: Yes Later date: Yes
ime: 30
ify callbacks? Yes

Select the item and press ENTER.
ENTER CANCEL

```

Figure 4-53. Play message header information options

- Number of confirmation chances: Number of tries the caller has to enter the information requested in any Data, Record, or Schedule mailbox segment. If a segment could not be confirmed, and is not set as Required to save message, then the caller drops to the next segment in the mailbox voice form. If a segment could not be confirmed, and is set as Required to save message, then the message is not saved, and the caller leaves the mailbox and continues with vector processing.
- Time format: The time format used, either a 12 or 24 hour clock, in getting caller and agent input in scheduling callbacks.
- Allow agents to reschedule: If set to Yes agents will be allowed to reschedule a message for callback using the same settings as in the scheduling menu options below. If set to No, agents will not be able to reschedule callbacks.
- Scheduling menu options: This option is used both by the caller and agent (during transcription) to reschedule a time for Agent Access. The options are to be called back:
 - Immediately
 - Later today
 - At a later date

You can restrict these options by selecting Yes or No with CHOICES [F2]. Each option corresponds to voice prompts directing the caller to: "Press 1, to be called back immediately"; "Press 2, to schedule a callback later today"; and, "Press 3, to schedule a future date."

 NOTE:

These prompts may be rerecorded in phrases appropriate for your call center (see "*Administration of Phrases for Vectors, Mailboxes, and Standard Speech*" on page 4-42).

 NOTE:

If Immediately is set to Yes and Later today and Later date is set to No, then the caller will not hear anything unless the actual schedule segment is set to confirm or if the segment is required to save.

- **Callback conference time:** The length of time, in seconds, that the CONVERSANT should remain on the line after it returns a call to the party who left the message. This should be set to the minimum time required for an agent to figure out whether a callback has reached the right person and, if it hasn't, to classify the callback attempt. For more information, see the description of the next field, Allow agents to classify callbacks.

 CAUTION:

When the CONVERSANT delivers a message to a remote agent via an outside call, the Callback conference time should be set to the maximum time required to complete the callback conference between the agent and the caller. The DEFINITY switch requires that all conference calls have a local-call party. Because both the remote agent and the caller are outside the switch, the CONVERSANT must be connected to the conference call. If the CONVERSANT should disconnect itself, it would break the entire conference call, disconnecting the agent and caller.

During intelligent delivery of a message to an agent, the Callback conference time begins when the agent answers. The agent's voice, or speech energy, signals the CONVERSANT to introduce a new message to transcribe. If the agent chooses to return the call, the CONVERSANT initiates a conference call and monitors the connection for a busy signal. In the absence of a busy signal, it judges the call "successful" and remains on the line for the duration of the Callback conference time."

During blind delivery of a message to an agent, the Callback conference time begins immediately after the system finishes dialing. The CONVERSANT prompts "Press 1 to begin transcription" immediately. Once an agent responds to the prompt, the transcription process begins.

If there is no response, the system eventually “times out” and makes another attempt later. The CONVERSANT does not monitor the connection for a busy signal. If the line is busy, the agent must press ***99** and classify the callback attempt by saving, deleting, or skipping the message.

 NOTE:

If a remote agent launches an outbound call to return a message left by a caller in the Care Center Callback Messaging package, the CONVERSANT will not drop out of the conference even when the Callback conference time has expired. If the CONVERSANT did drop out of the conference, then the entire call would be brought down - dropping both the agent and the caller.

- Allow agents to classify callbacks: When launching a callback, the agent has the option, (as mentioned in the previous section) to press ***99** and classify the callback’s status. If the agent classifies the message as **Successful**, then the status of the current message is either **Saved** or **Deleted** (as controlled by the agent, or as controlled by Care Center in the data segment field “Enable automatic callback”). If the agent classifies the message as **Unsuccessful**, then the status of the current message is set to **Ready** (that is, the message will be delivered to agents as usual.) This feature helps track outbound calls to callers leaving messages.

Agent Callback Hours

1. Choose this option from the Callback Messaging Administration menu. The Agent Callback Hours form, shown in Figure 4-54, will appear.
2. Enter to the left of the cursor times for each day of the week to begin and to stop contacting agents with messages automatically.

Leave lines blank to suspend this feature.
3. Press **CLOSE**  to save your changes.

```
LUCENT TECHNOLOGIES Customer Assist Care Center - September 09, 1996
```

1 Customer Assist Care Center Call Vector Configuration >System Administration System Monitor UNIX System Exit	2 System Administration >Callback Messaging Administration Conversant Administration Custom Call Routing Administration Report Generation Report Scheduling Speech Administration System Backup/Restore Variable Administration
3 Callback Messaging Administration Mailbox Administration Mailbox Global Settings >Agent Callback Hours	4 Agent Callback Hours Callback Hours (hours:minutes AM/PM) Start time Stop time SUN 12:00 AM 12:00 AM MON 08:00 AM 05:00 PM TUE 08:00 AM 05:00 PM WED 08:00 AM 05:00 PM THR 08:00 AM 05:00 PM FRI 08:00 AM 11:56 PM SAT 12:00 AM 11:00 PM

Enter the hour and press Return or the ENTER key.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 4-54. Agent Callback Hours Form

Custom Call Routing Administration

Use this menu, shown in Figure 4-55, to create, delete, and modify tables for Custom Call Routing applications.

Specific options include:

- Import/Export Data from/to Floppy
- Routing Table Administration
- Record Administration

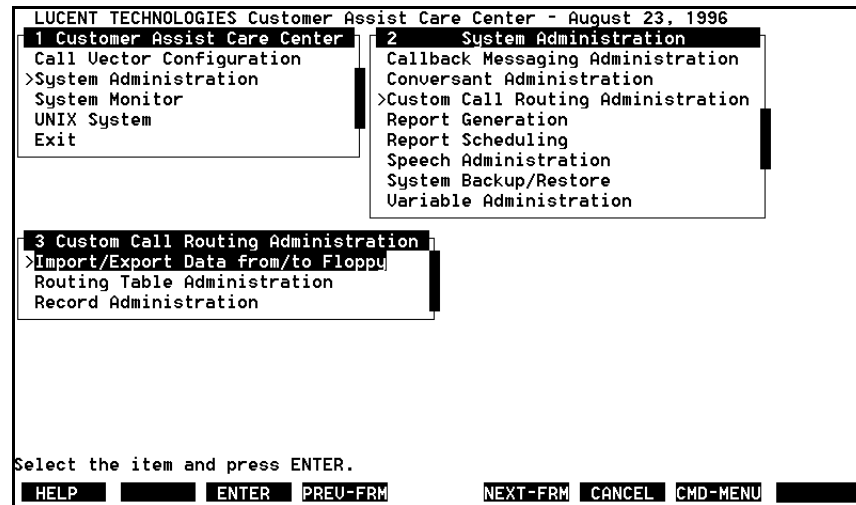


Figure 4-55. Custom Call Routing Administration Menu

Import/Export Data from/to Diskette

Use these options to exchange data between Custom Call Routing tables and flat ASCII files on DOS diskettes. You can also use these options to migrate to a new, larger, database table if it becomes apparent that your original database is too small.

1. Insert the DOS-formatted diskette containing the information you want to use into disk drive 0 or 1 on the CONVERSANT platform.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 09, 1996
1 Customer Assist Care Center
  >Call Vector Configuration
  >System Administration
  System Monitor
  UNIX System
  Exit
2 System Administration
  Callback Messaging Administration
  Conversant Administration
  >Custom Call Routing Administration
    Report Generation
    Report Scheduling
    Speech Administration
    System Backup/Restore
    Variable Administration
3 C 4 Import/Export Routing Table
  >Imp
  Rou
  Rec
  Import/Export data from/to DOS diskette
  Import/Export: Import
  Routing Table Name:
  Drive A or Drive B: A
  Path: /
  Filename:
  Field delimiter: |
  Filter Non-Numeric?: N
Select routing table import or export.
HELP CHOICES SAVE DIR ENTER CANCEL REFRESH

```

Figure 4-56. Import/Export Routing Table Form

2. Select Import/Export Data from/to Floppy from the Custom Call Routing Administration menu. Specify the following information on the Import/Export Routing Table form, shown in Figure 4-56:
 - Import/Export: The direction of the data transfer. If this is set to import, data will come from a DOS-formatted diskette. If this is set to export, specific table data will be saved to a DOS-formatted diskette.
Press CHOICES **[F2]** until the option you want appears.
 - Routing Table Name: The name of the table you want to populate.
 - Drive A or Drive B: The disk drive you are using. Press CHOICES **[F2]** until the option you want appears.
 - Path: The file's location on disk. Do not include the file name, but be sure to begin and end the path with a forward slash (/). Use this slash also to separate the names of the directories and subdirectories in the path. If you are exporting data, be sure that this path corresponds to an existing path on your diskette.
 - Filename: The name of the source file, if you are importing data, or the name of the destination file, if you are exporting data. Press DIR **[F4]** for a directory of files on disk.
 - Field delimiter: The delimiter you use in your file to separate items of information. Care Center will use this delimiter to assign information appropriately to columns 1, 2, and 3. Press CHOICES **[F2]** to choose from the following:

- | (pipe symbol)
- % (percentage sign)
- & (ampersand)
- - (minus sign)
- , (comma)
- : (colon)
- ; (semicolon).

- Filter Non-Numeric? Enter **y** to remove non-numeric data
or

Enter **n** to keep this data intact.

3. Press SAVE **F3**.



TIP:

When importing a table, the data will come in on Replace mode, meaning that it will replace any data that currently exists in the table in which you wish the data to populate.

Routing Table Administration

Routing tables on Care Center can consist of up to three columns of information. For call routing applications, use the:

- First column to identify callers (by Calling Party Number, for example).
- Second column for the corresponding extensions or VDNs to dial.
- Third column, if you wish, for information to use with the DATA_RTN action for call accounting, or to populate the dialed agent's telephone display.

Options in the Routing Table Administration form, shown in Figure 4-57, include:

- Add Table
- Delete Table

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 09, 1996

1 Customer Assist Care Center
  Call Vector Configuration
  >System Administration
  System Monitor
  UNIX System
  Exit

2 System Administration
  Callback Messaging Administration
  Conversant Administration
  >Custom Call Routing Administration
  Report Generation
  Report Scheduling
  Speech Administration
  System Backup/Restore
  Variable Administration

3 Custom Call Routing Administration
  Import/Export Data from/to Floppy
  >Routing Table Administration
  Record Administration

4 Routing Table Administration
  >Add Table
  Delete Table

5 Add Table
  Routing Table Name : _____
  Approximate Maximum Number of Records : 1000
  Description : _____

Please enter the routing table name followed by the ENTER or Return key.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

```

Figure 4-57. Routing Table Administration Form

Adding a Table

1. Select Add Table from the Routing Table Administration menu and specify the following information on the Add Table form that appears:
 - Routing Table Name: The name of the table you want to add
 - Approximate Maximum Number of Records (100 to 25,000): The maximum number of records you expect this table to contain. The system uses this number to determine how much space to reserve for your table. This is an approximation. Actual record capacity will depend upon record size, etc.
2. Optionally, enter a description to associate with this table.
3. Press CLOSE **[F3]**.

Deleting a Table

1. Select Delete Table from the Routing Table Administration menu. A list of tables will appear.
2. Use the directional keys to highlight the name of the table you want to delete, or type the first few letters of its name.
3. Press MARK **[F2]**.
4. To remove more than one table, return to step 2. To unmark a table, highlight its name and press MARK **[F2]** again.
5. Press **[ENTER]**.

**CAUTION:**

You cannot recover deleted tables.

Record Administration

To add, modify, or delete individual records in a database table, choose from the Record Administration menu shown in Figure 4-58.

- Edit/Delete Record
- Add Record

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 09, 1996
1 Customer Assist Care Center
  >Call Vector Configuration
  >System Administration
  >System Monitor
  >UNIX System
  >Exit

2 System Administration
  >Callback Messaging Administration
  >Conversant Administration
  >Custom Call Routing Administration
  >Report Generation
  >Report Scheduling
  >Speech Administration
  >System Backup/Restore
  >Variable Administration

3 Custom Call Routing Administration
  >Import/Export Data from/to Floppy
  >Routing Table Administration
  >Record Administration

4 Record Administration
  >Edit/Delete Record
  >Add Record

Select the item and press ENTER.
HELP  ENTER  PREV-FRM  NEXT-FRM  CANCEL  CMD-MENU
  
```

Figure 4-58. Record Administration Menu

Editing or Deleting a Record

1. Choose Edit/Delete Record from the Record Administration menu. The Edit/Delete Record form, shown in Figure 4-59, will appear.
2. After Routing Table Name, enter the name of the database table you want to administer. Press CHOICES **F2** for a list of administrable database tables.
3. After Lookup Field, enter the value you want to locate in the table's first column and press **ENTER**.
4. After Have you filled in all the fields?, enter **Y**.

**NOTE:**

All three fields need to be filled in to edit or delete a record. The last field is a reminder.

5. Press CLOSE [F3].

If the table contains a match, the table name and key field will appear with the value in Data Field 1 (the first column after the key field) and the value in Data Field 2 (the second column after the key field). Press DELETE [F4] to delete this record,

or

To modify this record, enter your changes and press CHANGE [F5],

or

To exit this record without making changes, press CANCEL [F6].

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 25, 1996
1 Customer Assist Care Center
  Call Vector Configuration
  >System Administration
  System Monitor
  UNIX System
  Exit

2 System Administration
  Callback Messaging Administration
  Conversant Administration
  >Custom Call Routing Administration
  Report Generation
  Report Scheduling
  Speech Administration
  System Backup/Restore
  Variable Administration

3 Custom Call Routing Administration
  Import/Export Data from/to Floppy
  Routing Table Administration
  >Record Administration

4 Record Administration
  >Edit/Delete Record
  Add Record

5 Edit/Delete Record
  Routing Table Name: _____
  Lookup Field: _____
  Have you filled in all the fields?: Y

Please enter the routing table name followed by the Enter or Return key.
HELP CHOICES CLOSE ENTER CANCEL REFRESH

```

Figure 4-59. Record Administration Menu with Edit/Delete Record Form

Adding a Record

1. Choose Add Record from the Record Administration menu. The Record Administration form, shown in Figure 4-60, will appear.
2. After Routing Table Name, enter the name of the database table you want to administer. Press CHOICES [F2] for a list of administrable database tables.
3. After Lookup Field, enter the value you want to place in the table's first column.
4. After Data Field 1, enter the value you want to place in the first column after the key field.
5. After Data Field 2, enter the value you want to place in the second column after the key field.

6. Press ADD [F3].

LUCENT TECHNOLOGIES Customer Assist Care Center - September 09, 1996	
1 Customer Assist Care Center Call Vector Configuration >System Administration System Monitor UNIX System Exit	2 System Administration Callback Messaging Administration Conversant Administration >Custom Call Routing Administration Report Generation Report Scheduling Speech Administration System Backup/Restore Variable Administration
3 Custom Call Routing Administration Import/Export Data from/to Floppy Routing Table Administration >Record Administration	4 Record Administration Edit/Delete Record >Add Record
5 Record Administration Routing Table Name: _____ Lookup Field: _____ Data Field 1: _____ Data Field 2: _____	
Please enter the routing table name followed by the Enter or Return key.	
HELP CHOICES ADD CANCEL REFRESH	

Figure 4-60. Record Administration Menu with Add Record Form

CONVERSANT Administration

Use this option to return to the CONVERSANT VIS Version 5 window system from the Call Center menu.

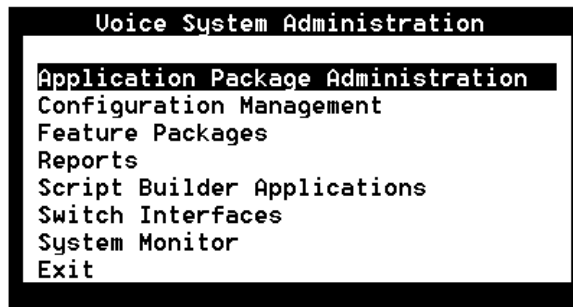


Figure 4-61. CONVERSANT Administration

Report Generation

You can create 14 Care Center reports from the Report Generation menu. They include:

- Call Detail
- Vector Usage
- Event Count
- Event Detail
- Traffic
- Vector Profile
- Vector Map
- Routing Table
- Message Count
- Message Log
- Agent Callback Count
- Transcription Detail
- Speech Space Available Test
- Message Download

To generate a report:

1. Choose Report Generation from the System Administration menu. A menu of reports will appear.
2. Select the report you want.
3. After Day for Report, enter the day of the week you want described for the Call Detail, Vector Usage, Event Count, and Event Detail reports.

or

Press CHOICES **F2** to select from a list.

4. Follow the instructions shown in the next sections for generating each report. Reports output to a screen and do not print automatically.



NOTE:

Some reports may take more than three minutes to process if you generate them during heavy traffic periods because they will automatically receive a lower priority than voice processing functions.

Call Detail Report

This report offers an at-a-glance summary of activity by call. Care Center assigns ID numbers sequentially to incoming calls. Caller ID #1 corresponds to the first call received during the selected day.

NOTE:

%caller_num can also be passed as an argument, via the Converse step or by executing Care Center from other Script Builder applications, to link multiple appearances of the same call in reports. (See “Reentering Customer Assist Care Center” on page D-1 for more information about administering this capability.)

When you select this report, you are prompted for the following:

Call Detail Report	
Day for Report:	Today
Caller ID(s):	last
Include Report Event Detail:	no

1. After Caller ID(s), enter the number of the call you want described: **last**, **all**, or **summary**.

Enter **last** for information about the most recent call.

Enter **summary** for a concise report of calls per channel, percent of channel usage, and call duration in call seconds for the time period selected.

Use a hyphen (-) to separate numbers in a range.

2. After Include Report Event Detail, enter **yes** to include a list of all CONVERSANT report events that interacted with the caller in the order they were activated.

or

Enter the default value **no** to exclude this information.

Pressing CHOICES **[F2]** allows you to cycle through yes and no responses.

For information about report events, see “Event Detail Report” on page 4-94.

3. Press CLOSE **[F3]**.

The report will be displayed on the screen (see Figure 4-62).

4. If you wish, press PRINT **[F3]**.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 25, 1996
1 5 CALL DETAIL REPORT
C
>S
S
U
E

Customer Assist Care Center
CALL DETAIL REPORT
MACHINE NAME: frolo
FOR DAY ENDING Today
FOR CALL IDs: last
RUN Wed Sep 25 13:33:36 EDT 1996

3
A
>C
E Call: 483 Channel: 2 Status: normal call
E Start: 01:12:45 Sun Sep 22, 1996
M Stop: 01:12:47 Duration: 2 sec.
M Vectors: 0!
M -----END OF REPORT-----

Press the CANCEL function key to cancel.
PRINT PREUPAGE NEXTPAGE CANCEL

```

Figure 4-62. Call Detail Report

Identify the calls you want described by entering their numbers. The system responds with:

- Channel number dialed
- The call's status: Status messages include:
 - Normal call: the vector terminated the call with a QUIT action.
 - Caller hungup: caller ended the call prematurely.
 - Endless loop failure: the call appeared to be trapped in an endless loop by passing from one vector to another more than 100 times.
 - Mtc seized channel: the system administrator or the CONVERSANT system itself applied a diagnostic maintenance process to the channel during a call.
 - Executed another script: the vector passed call control to another CONVERSANT application.
 - Vector error: the vector passed control to another vector that expected but did not receive arguments or the vector ended without a terminating QUIT action.
 - Missing vector: the vector used a GOTO, MENU, MSG_DROP, or SWITCH action to pass control to a missing vector.
 - Internal DIP error: an internal UnixWare operating system or other problem inhibited a data interface process from responding.

- Exec script failure: the vector transferred call control to a CONVERSANT application that it could not execute.
 - Calls exceeds license: Care Center could not process the call because it was already serving the maximum number of calls allowed by your software licensing agreement.
 - Data return to PBX: a DATA_RTN action caused call control to revert to the PBX.
 - Transfer call to PBX: a TRANSFER action caused call control to revert to the PBX.
- Start and stop times of the call
 - Call's duration in seconds
 - Optionally, the values of any variables that you archive with the CONVERSANT vector action REPORT
 - List of CONVERSANT vectors that were activated.
 - Optionally, a "SEG" field may appear on this report which identifies when a single call hits a CONVERSANT channel, goes back to the DEFINITY (or potentially another application), and comes back to the CONVERSANT on a different channel. The Call Detail report would classify that single call as two calls since it used two channels. To avoid this problem, Care Center will track that one call as two segments in one call and therefore the Call Detail Report will also classify that call as a single call.

Vector Usage Report

This report lists, by CONVERSANT vector number, the number of times each vector was used during the day you specify. Identify the vectors you want described by entering their identification numbers. Care Center responds with the vector name and number, and the number of times the vector was activated.

When you select this report, you are prompted for the following:

Vector Usage Report
Day for Report: <u>Yesterday</u>
Vectors: <u>all</u>

1. After Vector (s), enter the number of the CONVERSANT vector you want described, a range of numbers, or **all**.
Use a hyphen (-) to separate numbers in a range.
2. Press CLOSE **[F3]**.
The report will be displayed on the screen (see Figure 4-63).
3. If you wish, press PRINT **[F3]**.

Figure 4-63. Vector Usage Report

Vect	Vector number in the application.
Name	Vector name in the application.
Count	Number of times a vector was used during a specified day.

Event Count Report

This report lists the values of all variables that you archive with the REPORT action. Enter the day you want described and choose a sorting method. Care Center responds by listing:

- Each variable name and value
- Number of the CONVERSANT vector that reported the value
- Number of times the variable equaled the value in the CONVERSANT vector when the vector performed the REPORT action.

When you select this report, you are prompted for the following:

Event Count Report	
Day for Report:	<u>Yesterday</u>
List by vector or variable:	<u>vector</u>

1. After **List by Vector or Variable**, enter **variable** to generate an event count report by variable. This will list the number of times a variable held each value in any CONVERSANT vector. Information in this report is not CONVERSANT vector-specific. It is sorted in descending order under Count .

or

Enter the default value **vector** to list the number of times each variable held each value in each CONVERSANT vector. Information in this report is also sorted in descending order under Count.

Pressing CHOICES [F2] allows you to cycle through vector and variable responses.

2. Press CLOSE [F3].

The report will be displayed on the screen.

3. If you wish, press PRINT [F3].
-

Figure 4-64. Event Count Report by Vector

Cnt	Number of times this variable was populated
Vect	Vector number in which this variable occurred
Variable	Name of the desired variable
Value	Populated value of this variable

Event Detail Report

Each time a CONVERSANT vector uses the REPORT action with a variable, the Event Detail report collects the:

- Variable name and value
- Number of the CONVERSANT vector reporting
- Time of the event

- Number of the current call

Unlike the Event Count report, which groups variables with common values, the Event Detail report documents every reported variable separately.

When you select this report, you are prompted for the following:

Event Detail Report
Day for Report: <u>Yesterday</u>
Variable: <u>all</u>

1. After Variable, enter the name of the variable you want described or **all**. Press CHOICES **[F2]** for a list of variables.

2. Press CLOSE **[F3]**.

The report will be displayed on the screen.

3. If you wish, press PRINT **[F3]**.

Figure 4-65. Event Detail Report

Call	Identifying number of the current call
Time	Time of call
Vect	Number of the CONVERSANT vector reporting
Variable	Name of the desired variable
Value	Value of this variable

Traffic Report

This standard CONVERSANT report documents, by channel, the number of calls handled and their length. You identify the period of time you want described.

Care Center responds with:

- Channel
- Hourly period
- Number of calls (to all CONVERSANT applications)
- Average hold time
- Percentage of total channel capacity used

When you select this report, you are prompted for the following:

Traffic Report	
Day for Report:	<u>12/14/95</u>
Hours:	<u>all</u>
Summarize Data:	<u>no</u>

1. After Day for Report, enter the date you want described in mm/dd/yy format

or

Press CHOICES **[F2]** for a list.



NOTE:

Because the Traffic report provides a summary of a full day's activities, this report option is not available until after midnight for any day. Today is not a valid option.

2. After Hours, enter the hour of the day you want described, a range of hours, or **all**.

Use a hyphen (-) to separate hours in a range.

3. After Summarize Data, enter **yes** to include an activity summary

or

Enter the default value **no** to exclude this information.

Pressing CHOICES **[F2]** allows you to cycle through yes and no responses.

4. Press CLOSE **[F3]**.

The report will be displayed on the screen.

5. If you wish, press PRINT **[F3]**.

Figure 4-66. Traffic Report

Channel	Specific incoming CONVERSANT channel reported
Period	Hourly period reported
Calls	Number of calls to all CONVERSANT applications during the specified period
Average hold time	Average hold time for that period
% Occ	Percentage of channel capacity used

Vector Profile Report

This report displays the contents of CONVERSANT vectors. Enter the number of the vector you want described. Care Center responds by listing:

- CONVERSANT vector actions
- Comments and arguments associated with them

When you select this report, you are prompted for the following:

Vector Profile Report	
Include Vector Descriptions:	yes
Include Vector Steps:	yes
Include Vector Arguments	yes
Vector(s):	all
Database:	DEVELOPMENT

1. After Include Vector Descriptions, enter **yes** if you want to exclude any comments associated with actions.
2. After Include Vector Steps, enter **no** if you do not want to list the actions CONVERSANT vectors contain.
3. After Include Vector Arguments enter **no** if you do not want to list the arguments associated with CONVERSANT vector actions.
4. After Vector (s), enter the number of the CONVERSANT vector you want described or **all**.
5. After Database, repeatedly press CHOICES **[F2]** to choose **DEVELOPMENT, RUNTIME, or PREV_RUNTIME**.



NOTE:

These stand for:

- Development vector database, vectors currently being worked on
- Runtime vector database, vectors that are in service
- Previous runtime vector database, vectors from the archive database.

6. Press CLOSE **[F3]**.

The report will be displayed on the screen.

7. If you wish, press PRINT **[F3]**.



NOTE:

Valid Vector Action codes include: AD (ADA_CALC), AN (ANNOUNCE, DYN_ANNOU), CN (CHAN_ASN), CV (CONVERSE), DR (DATA_RTN), DY (DYNAMIC), EX (EXECUTE, MSG_DROP, SPCH_ADMN, TRANSCRIBE), GD (GET_DIGT), GI (GET_INFO), GB (GLOBAL), SW (GOTO, SWITCH), HU (HANG_ACT), DB (LOOK_UP), MN (MENU), OH (OFF_HOOK), QT (QUIT), RP (REPORT), SD (SCHEDULE), SI (SEND_INFO), ST (SET), NM (SPEAK_NUM), XR (TRANSFER), EW (EWT), GS (GET_SPCH), GP (GET_DIALP), and CL (CHG_LANG).



NOTE:

If you receive an error message when running the report that the report contains too many lines to display, run the report for each vector instead of **ALL** vectors.

Figure 4-67. Vector Profile Report

Vector Map Report

This report serves as a troubleshooting tool by charting the paths calls can take through Care Center. You choose where to begin your trace by choosing a specific vector, channel, or VDN. The system responds with a road map of vector actions and paths to other vectors. Before you place your development database of vectors into service, use this report to forecast the integrity of vectors, the way channels will respond to calls, and the way the system will handle calls from specific VDNs.

When you select this report, you are prompted for the following:

Vector Map Report	
Choose Selection Criteria:	<u>vector</u>
Selection Argument:	all
Database:	DEVELOPMENT

1. After Choose Selection Criteria, repeatedly press CHOICES **F2** and select vector to chart possible paths from a vector, channel to trace the path from a channel, or vdn to scan the vector database for references to a specific vdn.
2. After Selection Argument, enter the vector number, channel number, or vdn you want to use, or **all**.

3. After Database, repeatedly press CHOICES [F2] to choose **DEVELOPMENT, RUNTIME, or PREV_RUNTIME.**
4. Press CLOSE [F3].

The report will be displayed on the screen (see Figure 4-68).

Refer to “Vector Profile Report” on page 4-97 description for a key to the vector action codes.

If you wish, press PRINT [F3].

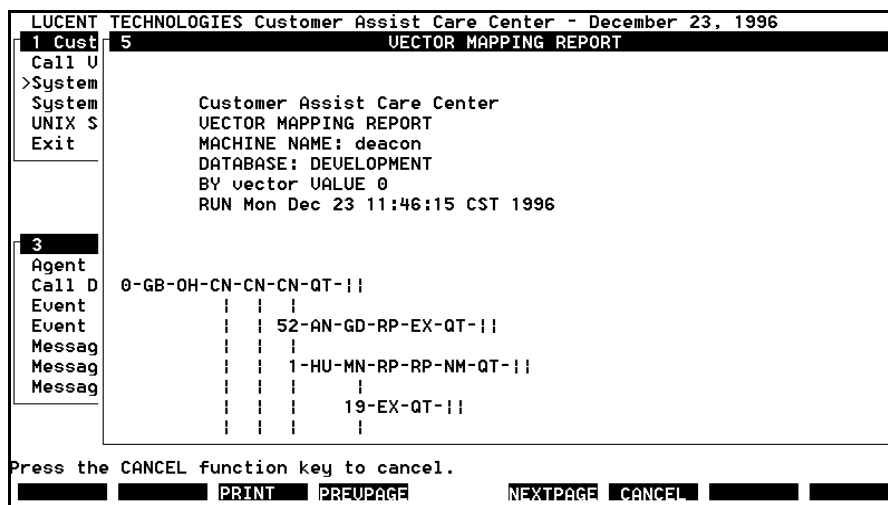


Figure 4-68. Vector Map Report

In the example shown in Figure 4-68, the setup vector (vector 0) uses the GLOBAL action to reset all variables and prepare Care Center for the incoming call. It uses the OFF_HOOK action to receive the incoming call. It uses several CHAN_ASN actions to decide which of the CONVERSANT vectors to activate.

- Vector 52 plays a standard announcement, captures digits, does a report on those digits, executes a CONVERSANT application, and quits.
- Vector 1 executes a HANG_ACT action, then a menu, two report actions, speaks a number, and quits.

Routing Table Report

This report displays the contents of a single routing table. Enter a routing table name. Care Center responds by listing, numerically, values in the lookup (key) field with corresponding values in Data Field 1 and Data Field 2.

When you select this report, you are prompted for the following:

Routing Table Report
Routing Table Name: _____

1. Name the routing table you want described

or

Press CHOICES **[F2]** for a list.

2. Press CLOSE **[F3]**. The report will be displayed on the screen. If you wish, press PRINT **[F3]**.

```
LUCENT TECHNOLOGIES Customer Assist Care Center - December 23, 1996
5 ROUTING TABLE REPORT

Customer Assist Care Center
ROUTING TABLE Routetest
MACHINE NAME: deacon

RUN Mon Dec 23 12:27:21 CST 1996

Total number of records : 3

LOOKUP FIELD          DATA 1 FIELD          DATA 2 FIELD
=====
                24103                3001                1
                24104                3002                2
                 999                3000                0

-----END OF REPORT-----

Report is truncated to fit screen. Press the CANCEL function key to cancel.
PRINT  PREVPAGE  NEXTPAGE  CANCEL
```

Figure 4-69. Routing Table Report

Message Count Report

This report provides a count of messages, by mailbox. When you identify the mailbox you want described, the system responds with the number of messages in each of two categories: "Ready" and "Saved." Only mailboxes containing messages are included.

When you select this report, you are prompted for the following:

Message Count Report	
Mailbox:	<u>all</u>

1. Enter the number of the mailbox you want described or **all**

or

Press CHOICES **[F2]** to select from a list.

2. Press CLOSE **[F3]**.

The report will be displayed on the screen.

3. If you wish, press PRINT **[F3]**.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 23, 1996		
1 Customer Assist Care Center	2 System Admin	5 MESSAGE COUNT REPORT
Call Vector Configuration	Callback Messaging	
>System Administration	Conversant Adminis	Mail Box Status Total
System Monitor	Custom Call Routin	=====
UNIX System	>Report Generation	666 READY 1
Exit	Report Scheduling	SAVED 3
	Speech Administrat	
	System Backup/Rest	
	Variable Administr	
3 Report Administration		
Agent Callback Count Report	Routing Table Report	
Call Detail	Speech Space Available	
Event Count	Traffic Report	
Event Detail	Transcription Detail Re	
>Message Count Report	Vector Map	
Message Download Report	Vec	4 Message
Message Log Report	Vec	
	Mailbox: <u>all</u>	
Press the CANCEL function key to cancel.		
PRINT	PREUPAGE	NEXTPAGE CANCEL

Figure 4-70. Message Count Report

Message Log Report

This report documents Callback Messaging activity. Choose a date, a mailbox, and the type of information you want reported. Care Center responds with a chronological listing each time it:

- Receives a message
- Saves a message
- Deletes a message

When you select this report, you are prompted for the following:

Message Log Report
Day for Report: 12/14/95
Mailbox: all
Enter type of data to report: all

1. After Day for Report, enter the date you want described in mm/dd/yy format

or

Press CHOICES **[F2]** for a list.

2. After Mailbox, enter the number of the mailbox you want described or **all**

or

Press CHOICES **[F2]** to select from a list.

3. After Enter type of data to report:

Press CHOICES **[F2]** to select from list.

- List messages left by callers
- Deleted to list messages deleted by agents
- Saved to list messages saved by agents

or

Enter **all**.

4. Press CLOSE **[F3]**.

The report will be displayed on the screen.

5. If you wish, press PRINT **[F3]**.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 09, 1996
1 Customer Ass 5 MESSAGE LOG REPORT
Call Vector Co
>System Adminis
System Monitor
UNIX System
Exit

3
Agent Callback
Call Detail
Event Count
Event Detail
Message Count
Message Downlo
>Message Log Re

Customer Assist Care Center
MESSAGE LOG REPORT
MACHINE NAME: deacon
FOR DAY ENDING 09/06/96
FOR MAILBOX: all, TYPE: all
RUN Mon Sep 9 16:43:47 CDT 1996

Type          Time          MailBx  Msg#  Chan
-----
Message       03:46:03 pm       777      2    07
Message       04:53:43 pm       666      3    33
Saved         05:01:20 pm       666      3    34
Message       05:04:43 pm       666      4    33
Deleted       05:06:02 pm       666      4    34

Press the CANCEL function key to cancel.
PRINT  PREUPAGE  NEXTPAGE  CANCEL

```

Figure 4-71. Message Log Report

Type	Current status of a specific message in specified mailboxes
Time	Time message was left
MailBx	Mailbox identification number
Msg #	Message identification number
Chan	Channel number where this message was active

Agent Callback Count Report

The Agent Callback Count report lists the number of attempted agent callbacks each hour and the number of successful and unsuccessful connections to agents. If configured to do so, the report prints automatically once per day in the format shown.

When you select this report, you are prompted for the following:

Agent Callback Count Report
Day for Report: 12/14/95

To print the Agent Callback Count report manually:

1. Select Agent Callback Count Report from the Report Generation menu.
2. Press CHOICES **F2** for a list of valid dates.
3. Highlight a date and press **ENTER**.

4. Press CLOSE [F3] to run the report.
The report will display on the screen.
5. Press PRINT [F3] to print the report.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 09, 1996						
1 Customer Ass	5	AGENT CALLBACK COUNT REPORT				
Call Vector Co		Customer Assist Care Center				
>System Adminis		AGENT CALLBACK COUNT REPORT				
System Monitor		MACHINE NAME: deacon				
UNIX System		FOR DAY ENDING Today				
Exit		RUN Mon Sep 9 16:45:25 CDT 1996				
3						
>Agent Callback	Hour	Attempts	Successful	%Success	Failed	Busy
Call Detail	00	0	0	0	0	0
Event Count	01	0	0	0	0	0
Event Detail	02	0	0	0	0	0
Message Count	03	0	0	0	0	0
Message Downlo	04	0	0	0	0	0
Message Log Re	05	0	0	0	0	0
	06	0	0	0	0	0
Press the CANCEL function key to cancel.						
		PRINT	PREUPAGE	NEXTPAGE	CANCEL	

Figure 4-72. Agent Callback Count Report

Hour	Starting hour for the group of attempts (08=8:00-8:59 am)
Attempts	Number of callback attempts to agents
Successful	Number of successful callback attempts
%Success	Percent of total attempts that were successful
Failed	Number of failed callback attempts
Busy	Number of attempts that failed because the agent's phone was busy

Transcription Detail Report

The Transcription Detail report lists all callbacks received by agents.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - December 23, 1996
5 Transcription
Customer Assist Care Center
TRANSCRIPTION DETAIL REPORT
MACHINE NAME : deacon
RUN Mon Dec 23 13:05:37 CST 1996

Mesg Start Launch Stop Data 1 Data 2 Data 3 CTE Agt Type
Num Time Time Time -----
=====
Mailbox : 1
3 09:38:01 09:38:20 0 No Del Cbk
Mailbox : 666
4 09:01:03 09:01:50 3628145 No Sav Cbk
2 09:34:01 09:36:04 3628145 No Abn Cbk
5 09:37:01 09:37:50 1234568 No Sav Cbk
6 09:49:00 09:49:46 1234567 No Sav Cbk
Mailbox : 781
7 11:48:02 11:48:55 12345 No Del Cbk

-----END OF REPORT-----

Report is truncated to fit screen. Press the CANCEL function key to cancel.
PRINT PREVPAGE NEXTPAGE CANCEL

```

Figure 4-73. Transcription Detail Report

Transcription Detail Report Form Fields

When filling in the Transcription Detail Report form, press NEXTPAGE [F5] and PREVPAGE [F4] to cycle through the pages.

Use Table 4-1 to help you enter information in the Transcription Detail Report form fields. For field names with an asterisk (*), you can press CHOICES [F2] to see a list of valid choices. On the CHOICES list, highlight your choice and press [ENTER] to fill in the field automatically.

Table 4-1. Transcription Detail Report Form Fields

Field	Description	Valid Inputs	Default
Report Name	Name of the report	Up to 30 characters	TRANSCRIPTION DETAIL REPORT

Continued on next page

Table 4-1. Transcription Detail Report Form Fields — Continued

Field	Description	Valid Inputs	Default
Print Automatically*	Y to generate and print the report automatically once each day, N to generate and print manually only	Y or N	Y
Description	Description of report	Up to 50 characters	Report for Transcription Detail
Day for Report*	Date of report to generate	Today or date within the last 7 days in MM/DD/YY format or leave blank	Current date
Column Title (12 fields)	Title for each type of column. The titles you enter here will appear at the top of each column in the report. Two lines are available for titles.	Up to 20 characters	
Column Display* (12 fields)	Controls how the column will be displayed. (N) Column will not display (zero) Column title will appear above a group of records with the same value for that column (for example, Mailbox in Figure 4-72) (1-12) Display order	N, 0-12	
Column Width	The width of the column in the report. (NOTE: If the number of characters in the column title is greater than twice the value in this field, the excess will be truncated.)	Two digits	
Column Format*	The display format for the column in the report.	Refer to Display Format list (press CHOICES <u>F2</u>).	

Continued on next page

Table 4-1. Transcription Detail Report Form Fields — Continued

Field	Description	Valid Inputs	Default
Sorting Conditions*	Enter up to six column types (not titles) by which to sort the columns. The report will sort first by the first type you list here, second by the second, etc. Valid column types appear under COLUMN DISPLAY: Type on the first page of the Transcription Detail report form. You can also press CHOICES F2 for a list of valid column types.	Valid column types are: Mailbox Message Number Start Time Launch Time Stop Time Data 1 Data 2 Data 3 Data 4 Conf time exp Agent Action Type	Mailbox Start Time
Sorting Format*	Enter the sort Conversion Format. For example, to sort by Start Time hours, use HH24	Refer to Conversion Format list (press CHOICES F2).	None
Range Selection Column Type*	Using the Range Selection fields, you can select a set of values to view for particular columns. Enter the column type (not title) here. You can enter a column type more than once to view a range of values. For example, to view all message numbers between 200 and 300, enter: Message Number > 200 Message Number < 300	Valid column types are: Mailbox Message Number Start Time Launch Time Stop Time Data 1 Data 2 Data 3 Data 4 Conf time exp Agent Action Type	None
Range Selection Operator*	Enter the operand expressing the relation to the value.	!= (equal to) < (less than) > (greater than) <=(less than or equal to) >=(greater than or equal to)	None

Continued on next page

Table 4-1. Transcription Detail Report Form Fields — Continued

Field	Description	Valid Inputs	Default
Range Selection Value	Enter a value corresponding to the column type.	Up to 20 characters (NOTE: Agent Action values must be expressed in digits. Refer to the Agent Action listing in "Record Information" on page 4-109.	None
Range Selection Format*	Enter the range selection value conversion format. For example, using: Start Time >= 08:00 HH24:MI to select records whose start time is at or after 8 a.m.	Refer to Conversion Format list (press CHOICES F2).	None

Continued on next page

After you have completed the Transcription Detail Report form (or if you are using the saved version of the form), as soon as the form appears on your screen, press VIEW **F8**. The report will generate on-screen. To print the report, press PRINT **F3**. To save your new configuration without generating the report, press SAVE **F3**.

Record Information

The Transcription Detail report can include the following information for each record:

Mailbox	Mailbox number
Message Number	Message Number
Start Time	Date and time agent received callback
Launch Time	Time agent launched call (blank if no call launched)
Stop Time	Either: Time the system released the call Time agent hung up (if agent hangs up before the system releases the call)

Data Field 1	First data field
Data Field 2	Second data field
Data Field 3	Third data field
Data Field 4	Fourth data field

⇒ NOTE:

If callers error out of a data segment to a record segment, the data fields to segment in the report may not be the same for different messages in the same mailbox.

Conference Time the Expired (CTE)	Y if agent remained on the line until the system released call N if agent hung up before the system released the call or, if agent pressed *99 to classify the call.

Agent Action (Agt Act)	One of the following:
	2 (Deleted) 3 (Saved)
	4 (Launched & Deleted) 5 (Launched & Saved)
	6 (Forward) 7 (Schedule)
	8 (Skip) 9 (Abandoned)
	(Agent hung up)

Type	How agent got to the Message: C (Callback) T (Transcription)

You can specify a number of formatting elements in the report, including:

1. Report name
2. Column width
3. Report description
4. Column display format
5. Column titles
6. Sorting conditions
7. Column order
8. Range selection

In addition, you can set the report to print automatically once per day (Y or N) and choose the date for which to run a manual report.

These options appear in the Transcription Detail Report form (Figure 4-73 on page 4-106) that appears when you select the Transcription Detail report from the Report Generation menu.

If the report is set to be automatically generated every night, then it is generated based on the range selection. However, if a date range selection is not specified, the system will use the date from across multiple days. To generate a report for the current date:

1. Set the Column Type to a date column type.
2. Set the Operator to =.
3. Set Value to **sysdate**.



NOTE:

The previous day can be obtained using sysdate – number of days. For example, yesterday would be sysdate – 1.

Speech Space Available Test

This report gives the disk drive's storage capacity.

SPEECH SPACE AVAILABLE TEST

Report on speech slice: 1

***Currently, there is space available in the speech file system.

There are 1279 speech blocks available, over the minimum limit of 400.

This means there are approximately 85 minutes of speech storage available for recording announcements or taking messages.

----TEST PASSED-----

Figure 4-74. Speech Space Available Test Report

The test measures the amount of speech utilized by every application in Care Center. If this test fails, enter these applications and delete unnecessary speech.

Message Download Report

This report shows a representation of messages left in a mailbox and the properties they display. The reports lists:

- Mailbox name - name given for mailbox identification
- Message number - number given for mailbox identification

- Message date - date and time message was left
- Message status - whether or not the message is ready to be transcribed
- Segment - what was entered in selected message segments

**NOTE:**

It only reports on Data segments.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 25, 1996	
1 Customer	5 MESSAGE DOWNLOAD REPORT
Call Vector	
>System Admi	Customer Assist Care Center
System Moni	MESSAGE DOWNLOAD REPORT
UNIX System	MACHINE NAME: frolo
Exit	FOR PERIOD ENDING 09/25/1996
	RUN Wed Sep 25 14:03:46 EDT 1996
3	Mailbox : 168
Agent Callb	Message number: 79
Call Detail	Message date : 09-18-1996 12:15:34
Event Count	Message status: READY
Event Detai	Segment 1 : 20011
Message Cou	Segment 2 : 1
>Message Dow	Segment 3 :
Message Log	Segment 4 :
	Segment 5 :
	Segment 6 :
Press the CANCEL function key to cancel.	
HELP CHOICES CLOSE DOWNLOAD CANCEL REFRESH	

Figure 4-75. Message Download Report

Report Scheduling

Use this option to select reports to generate automatically and to define the number of days to save information for reporting. Care Center generates selected reports generate daily at midnight.

Although you may define specific parameters for reports generated on demand, scheduled reports are generated using the standard settings shown in Table 4-2.

Table 4-2. Standard Settings for Scheduled Reports

Report	Setting
Call Detail	- Caller ID(s): setting is summary - Include Report Event Detail: setting is no
Vector Usage	Vectors: setting is all
Event Count	List by Vector or Variable: setting is vector
Event Detail	Variable: setting is all
Traffic	- Day for Report: setting is Yesterday - Hours: setting is all - Summarize Data: setting is no
Agent Callback Count	Included. No setting to define
Transcription Detail	Scheduled report is administered from the Transcription Detail menu

*Continued on next page***⇒ NOTE:**

The following reports cannot be scheduled: Vector Profile, Vector Map, Routing Table, Message Count, Message Log, and Speech Space Available Test.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - August 23, 1996
1 Customer Assist Care Center      2 System Administration
  Call Vector Configuration        Callback Messaging Administration
>System Administration            Conversant Administration
  System Monitor                  Custom Call Routing Administration
  UNIX System                     Report Generation
  Exit                           >Report Scheduling
                                   Speech Administration
                                   /Restore
                                   nistration

3 Report Scheduling Options
Time to Run Daily Reports:      12 midnight
Number of Days to Archive Data:  7

Run Traffic Report:             yes
Run Vector Usage Report:        yes
Run Event Count Report:         yes
Run Event Detail Report:        yes
Run Call Detail Report:         yes
Run Callback Count Report:      yes

Print Reports Automatically:    yes

Enter number of days (0-7) you want to archive data
HELP CHOICES CLOSE ENTER CANCEL REFRESH

```

Figure 4-76. Report Scheduling Options Menu

To schedule reports:

1. Choose Report Scheduling from the System Administration menu.
The Report Scheduling Options menu, shown in Figure 4-76 will appear.
2. After Number of Days to Archive Data, enter the number of days to save information collected for reporting before deleting it from the disk.
3. Enter **yes** after each report choice to generate the report automatically at 11:50 pm, or **no** to not generate the report automatically.

Press CHOICES **F2** to cycle through yes and no responses.



NOTE:

When the system generates the Traffic report automatically, it uses the previous day's data. For example, a Traffic report generated at 11:50 pm on Tuesday contains information about calls received between 12:00 am and 11:59 pm on Monday. The reports will print to your default printer.



TIP:

These reports print to the default printer physically attached to the CONVERSANT that has Care Center loaded. Care Center can print these reports across a LAN. Check with your network administrator.

System Backup/Restore

Use this menu to save and retrieve sets of CONVERSANT vectors and speech phrases. Options include:

- Restore Vector Database
- Back up Vector Database to Diskette (Floppy Disk)
- Back up/Restore Speech
- Back up/Restore Mailbox Configuration
- Format Diskette
- Restore Data from Previous Version of Care Center
- Copy file from/to Diskette

Care Center maintains CONVERSANT vectors in three databases:

- Runtime database of active vectors
- Development database of duplicate runtime vectors that you can modify without instantly changing the way the system handles calls
- Archive database of previously active vectors

Speech phrases used by CONVERSANT vectors are stored in talkfile 6104 (US English). Phrases used by message drop mailboxes are stored in talkfile 6105 (US English). Mailbox standard phrases are stored in talkfile 6102 (US English). Standard speech phrases are stored in talkfile 6100 (US English).



NOTE:

See "Talkfile Table" on page C-2 for talkfile numbers of alternate languages.



CAUTION:

The system will overwrite the contents of any diskette you use to back up data. Therefore, never use the same diskette to back up more than one vector database or talkfile.

Restore Vector Database

Use this menu to restore the previous runtime database, to replace the development database with the current runtime database, and to replace the development database with data from a diskette. Menu options include:

- Restore Previous Runtime (Archive) Database
- Restore Database from Current Runtime
- Restore Database from Diskette (Floppy Diskette)

Restore Previous Runtime Database

Use this option to undo the changes you made to the database of active CONVERSANT vectors when you last chose to place new vectors in service at the Vector Configuration menu.

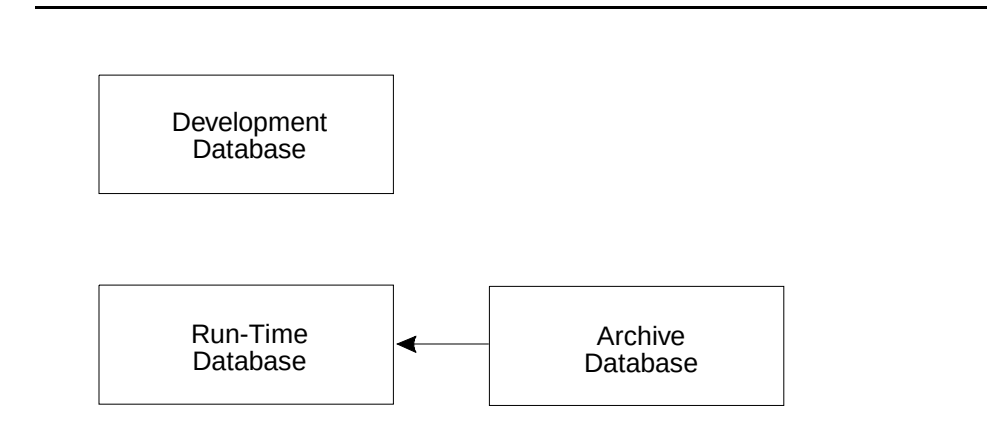


Figure 4-77. Restoring the Previous Runtime (Archive) Database

Restore Database from Current Runtime

Use this option to undo changes you made to the development database of CONVERSANT vectors since you chose to place new vectors in service at the Vector Configuration menu.

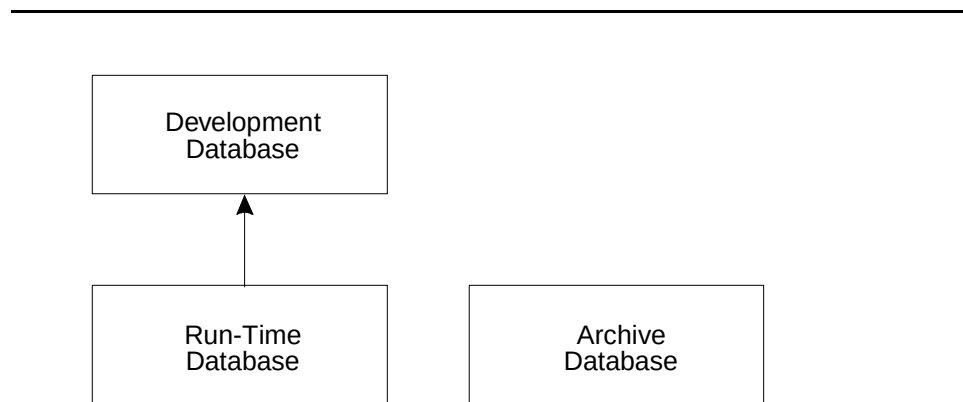


Figure 4-78. Restoring the Database from Current Runtime

Restore Database from Diskette

Use this option to overwrite the contents of the development database with a database of CONVERSANT vectors from diskette.

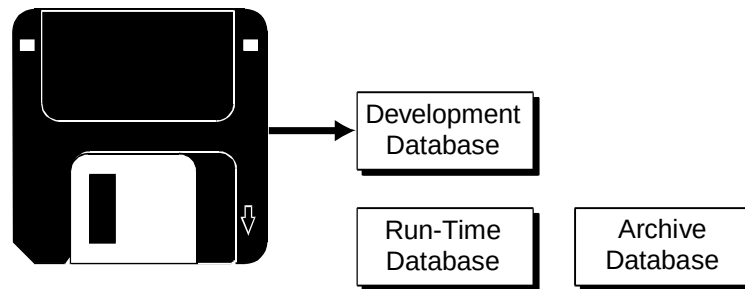


Figure 4-79. Restoring the Database from Diskette

1. Insert the diskette into disk drive 0 or 1 in your MAP/40 or MAP/100.
2. Enter **UNIX** or **DOS** to specify the diskette's format
or
Press CHOICES **[F2]** to cycle through responses.
3. Enter **0** or **1** to identify the disk drive you are using
or
Press CHOICES **[F2]** to cycle through responses.
4. Press SAVE **[F3]**.

Back Up Vector Database to Diskette

Use this option, shown in Figure 4-80, to copy the development database of CONVERSANT vectors to a diskette.

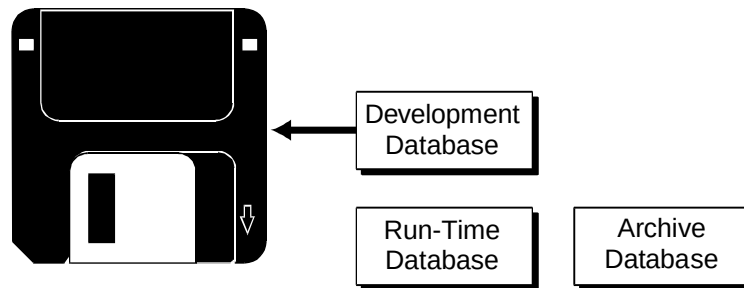


Figure 4-80. Backing Up the Development Database to a Diskette

1. Insert a diskette into disk drive 0 or 1 on the CONVERSANT platform.

⇒ NOTE:

If you want to back up vectors, but you have not yet formatted this disk, press CANCEL [F6] to return to the previous menu and choose the Format Diskette (Floppy Disk) option.

2. Enter **UNIX** or **DOS** to specify the diskette's format

or

Press CHOICES [F2] to cycle through responses.

3. Enter **0** or **1** to identify the disk drive you are using

or

Press CHOICES [F2] to cycle through responses.

4. Press SAVE [F3].

Follow the instructions carefully and do not insert or remove diskettes until you are prompted to do so.

⇒ NOTE:

To back up the runtime database:

- a. Back up the development database to diskette.
- b. Select Restore Database from Current Runtime to overwrite the development database with the runtime database.
- c. Perform your backup on a different diskette.

Backup/Restore Speech

Use this option, shown in Figure 4-81, to move speech phrases between talkfiles and diskettes.

Figure 4-81. Backing Up and Restoring Speech

1. Choose the activity you want to perform. Enter **Backup** or **Restore**
or

Press CHOICES **[F2]** to cycle through responses.

2. Insert a diskette into disk drive 0 or 1 on the CONVERSANT.



NOTE:

If you want to back up speech, but you have not yet formatted this disk, press CANCEL **[F6]** to return to the previous menu and choose the Format Diskette (Floppy Disk) option.

3. Select one of the following four talkfiles:
 - Vector phrases (for all languages)
 - Mailbox phrases (for all languages)
 - 6100 (Standard Speech phrases for US English)
 - 6102 (Mailbox Standard Speech phrases for US English)
4. Enter **0** or **1** to identify the disk drive you are using
or
Press CHOICES **[F2]** to cycle through responses.
5. Press SAVE **[F3]**.

Back Up/Restore Mailbox Configuration

Use this option to move data between the database of mailbox configuration settings and a diskette.

1. Enter **Backup** or **Restore**

or

Press CHOICES **[F2]** to cycle through responses.

2. Insert a diskette into drive 0 or 1 on the CONVERSANT.



NOTE:

If you want to back up mailbox settings, but you have not yet formatted this disk, press CANCEL **[F6]** to return to the previous menu and choose the Format Diskette option.

3. Enter **0** or **1** to identify the disk drive you are using

or

Press CHOICES **[F2]** to cycle through responses.

4. Press SAVE **[F3]**.



CAUTION:

Restoring Mailbox Configuration will overwrite any existing mailboxes and messages on your system.

Format Diskette

Use this option to initialize a 3 1/2" high-density diskette that has not yet been formatted. Diskettes need to be formatted only once.

1. Insert a diskette into disk drive 0 or 1 on the CONVERSANT.

2. Enter **UNIX** or **DOS** to choose a format

or

Press CHOICES **[F2]** to cycle through responses.

3. Enter **0** or **1** to identify the disk drive you are using

or

Press CHOICES **[F2]** to cycle through responses.

4. Press SAVE **[F3]**.



CAUTION:

Whenever you format a diskette, you permanently erase its contents.

Restore Data from Previous Version of Care Center

Choose this option during your upgrade to Version 6.0 of Care Center from an earlier version. (for example, CONVERSANT Solutions for DEFINITY Call Center, Version 4.0) Before you upgrade your system and choose to restore data from your previous version of Care Center, however, be sure to use your previous version to back up vectors, speech, mailbox configuration and routing table data.

Options include:

- Restore Development Vector Database
- Restore Speech
- Restore Mailbox Configuration

Restoring the Development Vector Database from a Previous Version of Care Center

1. Insert the diskette containing the data into disk drive 0 or 1 on the CONVERSANT.
2. Enter **UNIX** or **DOS** to choose a format
or
Press CHOICES **[F2]** to cycle through responses.
3. Enter **0** or **1** to identify the disk drive you are using
or
Press CHOICES **[F2]** to cycle through responses.
4. After Restore Phrase Database Also?, use the default value **y** to restore the phrase database (available only for Care Center upgrade from a version prior to 3.0) or type **n** to reject this option.



NOTE:

After you restore the Phrase Database, you must also Restore Speech by executing the following instructions.

5. Press SAVE **[F3]**.

Restoring Speech from a Previous Version of Care Center

1. Insert the diskette containing the data into disk drive 0 or 1 on the CONVERSANT.
2. Enter **0** or **1** to identify the disk drive you are using

or

Press CHOICES **[F2]** to cycle through responses. After **Talkfile**, enter the talkfile number corresponding to the speech you want to restore. Select one of the following talkfiles:

- 224 (Vector phrases)
- 242 (Mailbox phrases)
- 243 (Mailbox standard phrases)

Press CHOICES **[F2]** to cycle through responses.

3. Press SAVE **[F3]**.



NOTE:

Phrases in talkfile 224 will be restored to talkfile 6104 and phrases in talkfiles 242 and 243 will be restored to talkfile 6105

Restoring Mailbox Configuration from a Previous Version of Care Center

1. Insert the diskette containing the data into disk drive 0 or 1 on the CONVERSANT.
2. Enter **0** or **1** to identify the disk drive you are using

or

Press CHOICES **[F2]** to cycle through responses.

3. Press SAVE **[F3]**.

This chapter describes how to design a world-class call center with the Customer Assist Care Center product. What follows are:

- A broad-brush look at strategies to realize a world-class call center, accounting for resources and future goals (see “Strategies for Building a World-Class Call Center” on page 5-3)
- A discussion of call-center systems and the way Care Center groups its features by purpose (see “Potential Customer Assist Care Center Applications” on page 5-9)
- 15 sample applications, several with callflow diagrams (see “Introduction to the Sample Applications” on page 5-13)

Strategies for Building a World-Class Call Center

When challenged with building a world-class call center, you can address many operational issues with Customer Assist Care Center. Care Center is an extremely useful resource that call center managers can use to more effectively manage busy call volume (that is, queues) and expensive personnel resources. Whether your company strives for maximum cost efficiency or customer satisfaction, Care Center can help you achieve these goals. As a powerful queue and resource management tool, it is an alternative to hiring additional resources and can improve service to callers while waiting for a live agent.

How Do I Want to Interact With My Customer?

You know your customers and the market you compete in better than anyone. Does lowest unit price and efficiency drive your industry (for example, WalMart) or does personal service (for example, Lexus)? In most instances, call centers experience peaks and valleys in call volume during specific times of the day, week, month, or season. It may not be practical to add additional staff just for the late-morning or mid-afternoon spike. Care Center is most effectively used to manage queues by providing callers with dynamic self-service options while waiting for a live agent. Different self-service alternatives can be presented to each caller based on ANI, DNIS, prompted digits, position in queue, expected wait time, or VDN dialed. Instead of simply listening to music on hold, callers can access useful information via an information bulletin board, check their account balance, apply for a loan, etc.

To facilitate personal service even further, once an agent is available, Care Center can route the caller based on the caller's menu selection, language preference, account number, etc.

Superior customer service can be achieved by collecting information, such as an account or telephone number, from the caller with your DEFINITY or INTUITY CONVERSANT system. Service is faster when agents do not need to ask callers for this information. There can be many opportunities to delight customers with personal service and to lower the overall transaction time by using the information that you have already collected.

Care Center is a strategic asset that can assist you in addressing the following issues.

Company Issues

- Static or declining budgets
- Competitive pressures or changes within your industry
- Increasing labor rates
- Globalization

Agent and Resources Issues

- Training and agent turnover
- Agent specialization
- Customer specialization

Call-Center Issues

- Domestic versus international
- Centralization versus decentralization
- Acceptable abandoned call rates today versus the future
- Acceptable service levels today versus the future
- Do your current reports provide enough strategic-planning information, or should they be enhanced to meet future needs?
- Current tracking of calls versus future tracking and measurement needs

Technology Issues

- Role of the Internet in your call center
- Kind of equipment you have today versus what you might want in the future
- Kind of software technology today versus tomorrow (for example, will you only be using ANI in the future or will “II digits” become more important for your call routing to specific agents)

These are some of the topics that you should consider as you design a world-class call center that meets both your current and future needs.

Learning from the Past

Past lessons not only remind us what to avoid, but they also suggest what we should continue to do or improve.

As an example, suppose that your call center’s abandoned call rates are very high. Upon closer examination, you find that these high rates peaked around the lunch hour. In response, you could stagger your agents’ lunches to more evenly staff your agent groups during lunch. The result would be a lower overall abandoned call rate.

Balancing Service and Resources

The majority of any call center's budget is in people. Call-center managers must balance the conflicting objectives of:

- Maximizing human resources
- Providing efficient and effective customer service

Careful trade-offs must be made between staffing costs, queuing costs, and acceptable response times for service.

The key to a call center's success is to stay as convenient and consistent as possible. You must let your callers decide in a timely manner:

- Which services they want to use
- How they want to use them

All of this needs to be done while being cost-effective, efficient, and competitive. The mutual goals of staffing high-quality agents who provide callers with both good:

- Performance (answering calls quickly)
- Service (spending sufficient time with callers)

are conflicting. Your task is to design a call center in such a way that both of these goals can be realized to your customers' satisfaction.

Building Your World-Class Call Center

Integrating the CONVERSANT system, the DEFINITY call-center features, and the Customer Assist Care Center product can help you realize your goals. Call-center features of the DEFINITY G3 or ECS R5 switch manage the flow of traffic to/from agent groups. These features provide the best and fastest route for callers to agents. Meanwhile, CONVERSANT and Customer Assist Care Center expand the limits of the DEFINITY switch by adding intelligence to calls, via computer telephony integration technologies, so that the call center and its callers can make call-handling decisions.

After all, callers not only want good service, they want options as they receive this service. No matter how powerful a call center is (with more callers than available agents), appropriately applied automation is vital to the call center's effective management — not just for voice calls, but also for Internet access such as e-mail and the World Wide Web. With these come new challenges such as integrating their overall mix of these services.

By allowing information exchange between the DEFINITY's call-center features, the CONVERSANT, and other databases, Customer Assist Care Center accesses pertinent call status and caller information to help manage call or

“contact” traffic. Through vector-controlled caller interface, Customer Assist Care Center provides services to callers even when live agents are unavailable and actually encourages callers who might normally wait it out in queue (or worse yet, hang up) to try an automated approach.

Customer Assist Care Center integrates voice into the traditional Computer Telephone Integration (CTI) mix, beyond basic announcements and automated options of the Automated Call Distribution (ACD) itself. In this way, Customer Assist Care Center not only helps better distribute calls to agents, but can provide better services to callers.

In many cases, automation is the best and fastest way to provide service for callers who don't need to or want to speak with an agent. The more service you can automate, the faster call centers can respond to customers for whom automation is not appropriate.

Customer Assist Care Center provides database intelligence, enhanced prompting, and status playback to callers which the ACD itself cannot easily provide. Applications packaged within Customer Assist Care Center include intelligent announcements tailored to callers, sophisticated bulletin boards, and automated message callback. There are additional packages that will work with Care Center including automated transaction processing options like order entry, account status, FAX-back response, screen pop, and World Wide Web integration.

Testing and Customer Feedback

Once you have created the framework for your world-class call center, be sure to test it thoroughly and obtain customer input about its effectiveness. An understanding of human factors and knowledge about your customers are important. Some of the following topics should help you gain insight.

- Who are your callers?
- What languages do your callers speak?
- Do you know your callers' ages?
- Are your callers likely to call your competitors?
- How often do your callers call?
- How intelligent or informed are your callers?

Some additional human-factor tips about automation include the following:

- Use clear, simple, and natural speech.
- Don't ask callers to remember too much.
- Be consistent with all prompts and requests for touch-tone or speech-recognition input.

- Provide callers with confirmation of input and with feedback about current activities.
- Allow callers to shortcut and exit the system easily.
- Use professional speakers.
- Design a callflow before you create your application.
- Refer to *INTUITY CONVERSANT System Application Design Guidelines*, 585-310-670, for more information about human factors.

Maintenance

Like any hardware and software combination, sometimes repairs, adjustments, and updates need to be made. Your DEFINITY G3 or ECS R5, CONVERSANT, and Customer Assist Care Center configuration is no different. Don't be surprised if you make minor adjustments to your speech phrases, vectors, or callflows. We do not recommend that you significantly change your callflows very often since regular callers may remember your prompts for touch-tone input and "dial through" these prompts. If your callflows change too often, these callers may become unnecessarily frustrated.

Adjustments are one thing, but hardware and software upgrades are another. Advancing technology usually benefits those using the latest versions. Look at future releases of DEFINITY, CONVERSANT, and Customer Assist Care Center for enhancements that may assist and hasten your quest of a world-class call center.

Potential Customer Assist Care Center Applications

The following is a brief description of the major applications that you can build with Customer Assist Care Center.

Auto Attendants

An Automated Attendant, or Auto Attendant as it is commonly called, provides menu-driven routing options for incoming callers. Callers are prompted with menus from which they can choose routing options using either their touch-tone keypad or their voice in a speech-recognition environment.

Bulletin Boards

Bulletin boards allow callers to hear messages through a menu and, if necessary, submenus. Instead of routing callers to an application or extension, a bulletin-board application routes callers to particular phrases. This may be through menus (for example, "Press 1 for directions, or press 2 for product information.") or through other meaningful numbers that are assigned to correspond with specific phrases (for example, "Enter the catalog number.").

Bulletin boards provide useful information as either a supplement or a substitute to agent help by:

- Allowing callers to access frequently requested information in queue
- Minimizing direct agent assistance by providing general or dynamic announcements
- Serving as a stand-alone application

Caller-On-Hold Systems

Standard/Dynamic Announcements

Standard announcements, heard by every caller directed to a specific split, may no longer be the compelling reason to use Customer Assist Care Center. However, when combined with other features, this software package continually provides announcement capabilities that enhance the DEFINITY G3 or ECS R5 in terms of both the dynamics of the announcements and the speech-storage capacity of the CONVERSANT platform, should it be needed.

With integration, dynamic announcements can be uniquely tailored for a particular caller. Another benefit of Care Center announcements is the system administrator can access a single administration interface for voice applications in a call center.

Delay Announcements and Delay Routing

Customer Assist Care Center relays caller-specific delay announcements, and helps apply appropriate automation, based on ANI, DNIS, and current call-center status.

Customer Assist Care Center uses queue-position or expected-wait-time data from the DEFINITY G3V4 or ECS R5 and provides the ability to speak this information to callers in a flexible format, providing an incentive to choose automated services. Delay and wait time may be spoken to callers, or used for automatic call routing based on group-activity status.

Speech Recognition

With the addition of optional speech recognition, Customer Assist Care Center applications such as menus, automated attendants, bulletin boards, callback messaging, prompt-based routing, and other prompting applications are available to rotary callers or any other caller who prefers vocal responses to touch-tone responses.

Furthermore, providing a speech-recognition version of vectoring allows a call center to extend the DEFINITY ECS R5's Call Prompting (which facilitates data display) and Expert Agent Selection features to rotary callers using Customer Assist Care Center.

For more accurate recognition of lengthy digit strings and to simultaneously store each string in a single variable, the speech-recognition capability use a series of collect segments to collect information, where the combined inputs are loaded into a single input variable.

Speech recognition also enables telephone numbers, account numbers, or other data in additional fields, to be collected for use in Callback Messaging.

Message Delivery and Callback Messaging

Customer Assist Care Center Callback Messaging is a package that works most effectively with anticipated delay routing and announcements to help even out the flow of traffic to agents.

With Callback Messaging, Customer Assist Care Center may:

- Automatically direct callers to a mailbox after hours or when call volumes exceed a specified threshold, or
- Provide the option for a caller to leave a message rather than wait in queue for an available agent.

Customer Assist Care Center's Callback Messaging package provides the following services:

- Acts as a voice form or message mailbox which collects information (either by speech recording, speech recognition, or touch tones) from a caller using a series of prompts and allows agents to call in and retrieve messages for transcription
- Takes a message from a caller for a return call and automatically delivers the message to an agent, either by monitoring the queue status for an available agent or by placing a message in queue for an available agent

Once the agent has reviewed a message, Care Center can automatically place a call through the switch to connect the agent with the customer. The Callback Messaging package provides this capability whether Callback package services automatically deliver the message to the agent or the agent dials into the system to retrieve the message.

Many vendors claim to deliver callback messaging, but examine their features and you will quickly see the difference between a message-drop/voice-mail capability and Callback Messaging. Callback Messaging is really a virtual queuing capability for customers, providing the capability for calls to be queued based on their type and priority.

If a caller wants to talk to an agent, Callback Messaging provides callers with flexible alternatives to waiting in queue. For a call center, this can dramatically reduce abandoned calls, average hold times for callers, and associated network costs.

Dynamic Port Allocation

Dynamic port allocation maximizes the use of ports in a multi-application environment. By using information passed from the DEFINITY system, and perhaps acquired by accessing other databases, any port can determine the appropriate recorded message to play or other application for a given caller. Ports may be allocated for all applications. Some ports may be allocated for specific applications if required. A dedicated port is required for message waiting lights. Ports may share inbound traffic with outbound calls for callback messaging if desired.

⇒ NOTE:

To launch a callback you must dial into a port that has the TRANSCRIBE action assigned. A callback cannot be dynamically allocated and then launched.

Multilingual Systems

As more companies serve customers in multilingual settings, corporate call centers must keep up with this emerging trend. Customer Assist Care Center, including its speech recognition, can work with 11 different languages that are widely spoken in over 17 countries. When enabled, Customer Assist Care Center can toggle between languages in real time and on a per-call basis. Agents can then transcribe messages while toggling between languages.

Other Applications

Customer Assist Care Center administrators can use the optional Script Builder software to create applications that can coexist with Customer Assist Care Center. These additional applications can be executed by Care Center, and can also pass information back with calls as they return to Care Center. Other third-party software packages that have been built with Script Builder can also be purchased.

System Administration: Actions/Speech/Reports

Although some might never be needed for basic implementations, Customer Assist Care Center includes a robust set of actions for powerful application administration.

- Call Prompting
- Speech recognition-enabled Call Prompting
- Check queue status — any split(s) or skill(s)
- Goto step/vector if
- Route/transfer to
- Collect digits
- Converse
- Data return
- Announce
- Concatenated and/or dynamic announcements
- Time of day/date checking and routing
- Report/route on abandon (abandoned call treatment)

Care Center's speech-administration services are part of the product. Care Center provides standard speech in a female voice for letters, digits, and the numbers needed for delay announcements, as well as a number of standard phrases used in the:

- Callback Message package
- Speech-administration services

The administrator and a customer-selected voice talent create all other speech through the speech-administration services.

Customer Assist Care Center, Version 6.0 also comes with a robust set of 14 comprehensive reports that can powerfully measure the success of your call center. Each report is standard, and configurable reports are also available. These reports can be toggled on or off and scheduled to generate and print at regular intervals.

Introduction to the Sample Applications

This chapter contains 15 sample applications that explain how a hypothetical company called Rock Coast Software can set up Care Center and implement its features to create a world-class call center.

The Rock Coast Software company maintains a customer-service call center to handle a significant number of customer comments and questions. Agents spend most of their time answering questions about their flagship software products, but they also occasionally announce new products and special promotions. Rock Coast Software wants to make better use of its limited human resources but recognizes the importance of giving customers the attention they deserve. Currently, its DEFINITY ECS R5 switch is programmed to play some standard announcements containing general information. With Care Center, Rock Coast Software can add many additional capabilities to its call center. Each of the sample applications (SAs) focuses on a basic Care Center task or a new capability.

- SA #1 creates Care Center's setup vector, which is required for all applications.
- SA #2 records a speech phrase and creates a CONVERSANT vector that plays the phrase as a standard announcement to callers.
- SA #3 creates CONVERSANT vectors that play dynamic announcements with the name of the department being called and the name of the caller's company.
- SAs #4 and #5 create automated attendants and bulletin boards.
- SAs #6 and #7 announce a caller's queue position or estimated wait time.
- SAs #8 and #9 route calls based on call information, such as Automatic Number Identification (ANI), or estimated wait time.
- SA #10 builds on sample application #9 by setting up a callback messaging mailbox.
- SA #11 makes sample application #9 bilingual.
- SA #12 explains dynamic port allocation and dynamic allocation of applications.
- SA #13 schedules different announcements for weekends and during the holiday season.
- SA #14 explains the reporting and hang-up actions.
- SA #15 explains how to enable agents or supervisors to call into Care Center to administer speech and transcribe callback messages.

Organization of the Sample Applications

The initial sample applications provide step-by-step instructions for basic tasks such as creating the `setup` vector and recording announcements. Subsequent sample applications build on lessons learned in previous sample applications.

Most of the sample applications include:

- Callflow diagrams
- Examples of DEFINITY vectors
- Descriptions of the steps in CONVERSANT vectors

Some of the sample applications also include Care Center administration topics such as recording announcements and creating mailboxes for callback messaging.

Callflow Diagrams

Before every application is built, you should create a callflow diagram to ensure that you completely understand what you are trying to accomplish and what callers will hear and do during calls.

DEFINITY Vectors

As a CONVERSANT application, Customer Assist Care Center takes all of its direction from a DEFINITY switch by means of DEFINITY call vectors. The DEFINITY vectors are critical to understand because they send calls to the CONVERSANT for processing by Care Center.

The examples of DEFINITY vectors in the sample applications assume that you are familiar with the steps in DEFINITY vectors.

If you are not familiar with DEFINITY call vectoring, read the first few chapters of the *Lucent DEFINITY Communications System Generic 3 or ECS R5 Call Vectoring/EAS Guide*, 555-230-520 or -521.

CONVERSANT Vectors

A CONVERSANT vector consists of a series of steps, and each step contains one vector action. Each sample application describes the steps in all of its CONVERSANT vectors. Chapter 3 explains vector actions in detail.

The first time that a vector action appears in the sample applications, the description includes a figure showing the action's form. After that, the sample applications usually do not show action forms unless the vector action is used in a new way or the information on the form is important to the discussion of the application. For each action entry, the index includes references to pages with figures showing the action's form.

Sample Application #1: The Setup Vector

Business Situation

The Rock Coast Software company has just purchased an INTUITY CONVERSANT system with Customer Assist Care Center, Version 6.0 software. They are using a DEFINITY G3 or ECS R5 switch and have already set up the switch with the correct hunt groups to send callers to the CONVERSANT when necessary.

The first step in Care Center administration is to direct incoming call traffic. You do this by using the setup vector.

The setup vector is the main traffic control point that sends incoming CONVERSANT calls to their appropriate vectors. The setup vector is loaded automatically when Care Center software is installed and should be modified immediately. Later, when you have many of your vectors built and applications loaded for your call center, you can modify the setup vector quickly by using the Setup Vector template and replacing the existing setup vector.

The setup vector is the first vector you will work with, and is numbered "Vector #0." The setup vector is responsible for:

- Setting all global variables to null or zero for each specific incoming call
- Taking CONVERSANT ports off hook to receive calls
- Sending callers to the next vector in the callflows
- Quitting execution

Procedure

For information about getting started with your Care Center, see "Getting Started" on page 2-1.

NOTE:

For complete information about installing your CONVERSANT system from Lucent Technologies, please refer to the INTUITY CONVERSANT System Version 6.0 Administration, Upgrade, and Maintenance guides.

Assigning Care Center to Channels on the CONVERSANT

One step must be completed before you can start to modify the setup vector, and that is to assign Care Center to CONVERSANT channels as ccc.

1. Once the Care Center software is loaded and you have executed the software by entering **ccc** at the UnixWare prompt:
 - a. Select System Administration.
 - b. Select Conversant Administration.

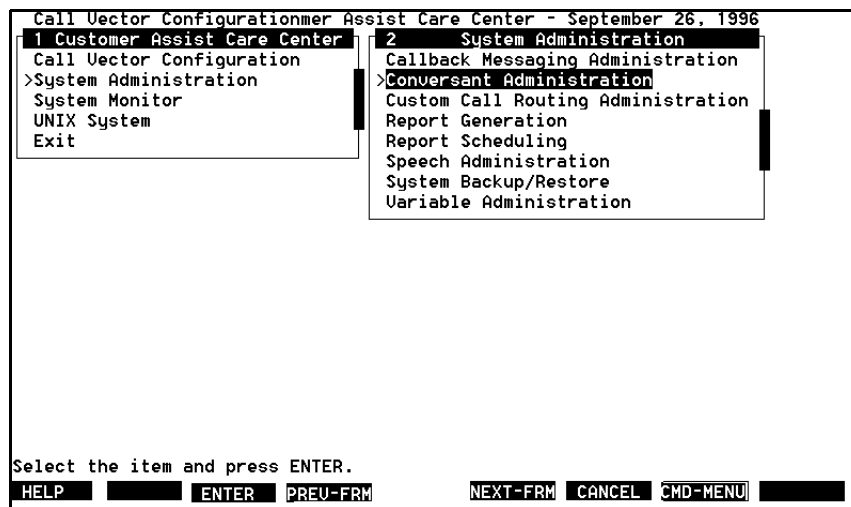


Figure 5-1. Path to CONVERSANT Administration

2. CONVERSANT menus will appear. Select from the menus in the following order:
 - a. Configuration Management
 - b. Voice Equipment
 - c. Voice Services
 - d. Channel Services
 - e. Assign Service

The screenshot shows a terminal window with a menu structure on the left and a main content area. The menu on the left includes 'Voice System Administration', 'Configuration Management', 'Voice Equipment', 'Voice Services', and 'Channel Services'. The 'Channel Services' option is highlighted, and a sub-menu 'Assign Services to Channels' is displayed. This sub-menu contains three input fields: 'Channel Numbers:', 'Service Name:', and 'Startup Service:'. At the bottom of the screen, there is a status bar with buttons for 'HELP', 'CHOICES', 'SAVE', 'CANCEL', and 'CMD-MENU'.

```

Voice System Administration
  Configuration Management
    Voice Equipment
      Voice Services
        Channel Services
          Assign Services to Channels
            Channel Numbers:
            Service Name:
            Startup Service:
          HELP CHOICES SAVE CANCEL CMD-MENU

```

Figure 5-2. Channel Assignment Screen

3. At the Assign Services to Channels form, enter a channel number (for example, 5, 6, or 7) or a range of numbers (for example, 5-9) to represent the channels on the CONVERSANT. Then tab to the Service Name field, and press CHOICES **F2** to see the available applications. Use your directional keys to move the cursor down to "ccc".

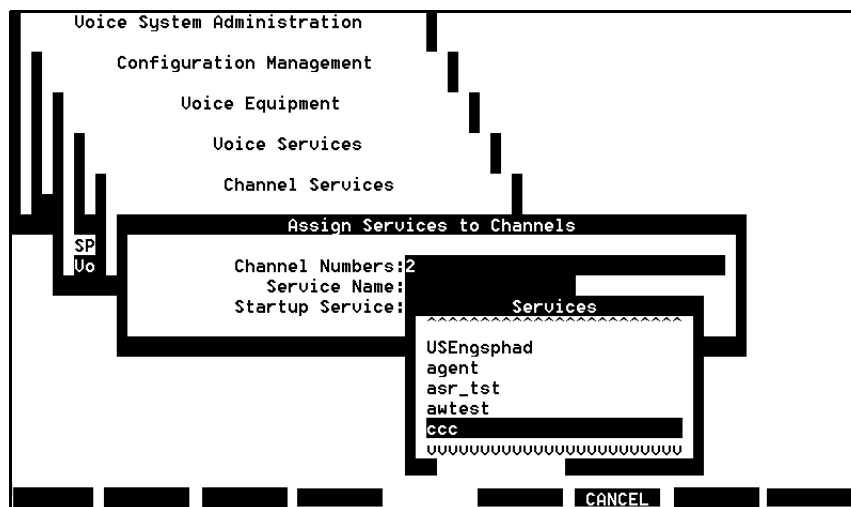


Figure 5-3. Available Services

4. Press **ENTER**, and repeat the process for the Startup Service field. When you are finished, press **SAVE** **F3**, and verify your choices on screen. Press **CANCEL** **F6** until you return to the Care Center main menu.

You have now assigned Care Center to channels on your CONVERSANT system.

Viewing Channels Assigned to Care Center

1. Exit out of Care Center.
2. Enter **disp chan** (for display channels) at the UnixWare prompt.



NOTE:

In Figure 5-4, Channels 1 and 2 are currently assigned to **ccc**, which is the service name for Care Center. One other channel is in service, but it is assigned to another application. Also, three channels are currently not active, that is, they are in "Facility Out Of Service" mode ("FOOS"). The phone extensions to call Care Center are 676 and 137.

```
frollo[super]:/usr/add-on/ccc/OBJECTS>disp chan
CHN CD.PT STATE STATE-CHNG-TIME SERVICE-NAME PHONE GROUP OPTS TYPE
0 0.0 Inserv Sep 20 17:05:49 Ashtest 675 2 talk IUP6
1 0.1 Inserv Sep 20 17:05:49 ccc 676 2 talk IUP6
2 0.2 Inserv Sep 20 17:05:49 ccc 137 2 talk IUP6
3 0.3 Foos Sep 20 17:05:49 - - 2 talk IUP6
4 0.4 Foos Sep 20 17:05:49 - - 2 talk IUP6
5 0.5 Foos Sep 20 17:05:49 - - 2 talk IUP6
frollo[super]:/usr/add-on/ccc/OBJECTS>
```

Figure 5-4. Channels in Service

Building the Setup Vector

The following sections describe two ways to build the setup vector. Use the one with the closer relation to your current software situation and experience.

Resetting the Current Setup Vector to the Template's Defaults

1. Enter Care Center by entering **ccc** at the main UnixWare prompt.
2. At the main menu, select Call Vector Configuration, then select Select Vector Template, and then select Setup Template. This process will reset your setup Vector to the default settings in the software.

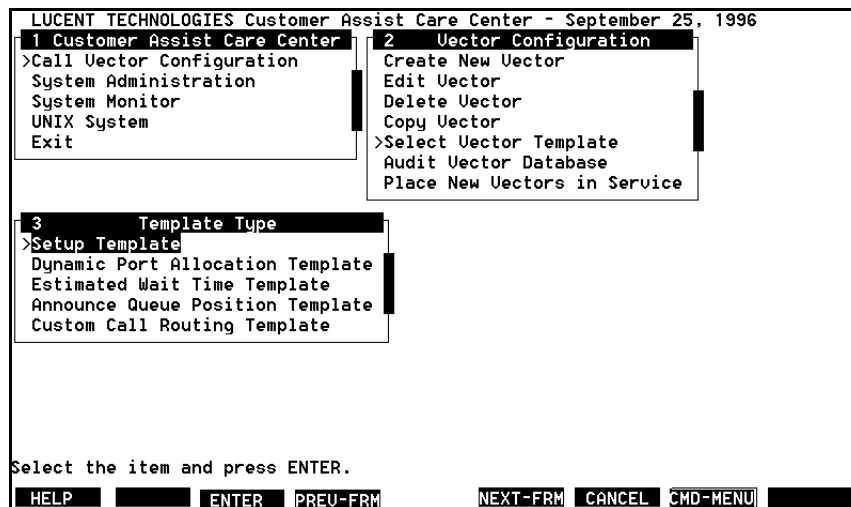


Figure 5-5. Vector Templates Menu

Modifying the Automatically Loaded

Setup Vector:

If you are just starting out with Care Center, the easiest way to build the setup vector is to modify the one that is already there. To do so:

1. Enter Care Center by entering **ccc** at the main UnixWare prompt.
2. At the main menu, select **Call Vector Configuration**, **Edit Vector** (Figure 5-6) and then **0|setup**.

The Setup Vector worksheet (Figure 5-7) appears.

⇒ NOTE:

Several of the steps have actions already loaded into them. In this example, you will modify one action, the **CHAN_ASN** action.

Figure 5-6. Edit Vector Menu

LUCENT TECHNOLOGIES Customer Assist Care Center - September 25, 1996		
1 Cust	4 EDIT VECTOR NUMBER 0 STEPS	
>Call Use	Vector Name: setup	Vector Number: 0
System	Description: system setup vector	
System		
UNIX Sy		
Exit		
	Step	Action Description
	1	GLOBAL global declarations
	2	OFF_HOOK answer the call
3 Edi	3	CHAN_ASN assign channels to vectors
>0:setup	4	CHAN_ASN assign channels to vectors
1:CM t	5	CHAN_ASN assign channels to vectors
2:CAT t	6	CHAN_ASN assign channels to vectors
3:EW T	7	CHAN_ASN assign channels to vectors
4:db te	8	CHAN_ASN assign channels to vectors
5:globa	9	CHAN_ASN assign channels to vectors
6:Ashte	10	CHAN_ASN assign channels to vectors
7:annou	11	QUIT if channel is not assigned.
8:chg l	12	
9:Ashte	13	
	14	
HELP INSERT REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS		

Figure 5-7. Setup Vector Worksheet

- Use the directional cursors to move down to step 3 and then press DEFINE [F4].

The CHAN_ASN action form appears.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 25, 1996
1 Custo 4 EDIT VECTOR NUMBER 0 STEPS
>Call Use Vector Name: setup Vector Number: 0
System Description: system 5 CHAN_ASN Action Step Number 3 for vector 0
System
UNIX Sy
Exit

Step Action
1 GLOBAL glob
2 OFF_HOOK answ
3 CHAN_ASN assi
4 CHAN_ASN assi
5 CHAN_ASN assi
6 CHAN_ASN assi
7 CHAN_ASN assi
8 CHAN_ASN assi
9 CHAN_ASN assi
10 CHAN_ASN assi
11 QUIT if c
12
13
14

CHAN_ASN assigns vectors to channels
Comment: The Setup Vector for Rock Coast
CHANNEL VECTOR NAME
1 26 RC-Main Greet

Enter the Vector number follow by the Return or ENTER key.
HELP CHOICES CLOSE ENTER CANCEL REFRESH

```

Figure 5-8. CHAN_ASN Action Form

4. You may:

- a. Enter a comment if you wish.
- b. Tab down (or use your directional keys) to move to the Channel column.
- c. Enter the channel numbers that currently are active with Care Center (from "Assigning Care Center to Channels on the CONVERSANT" on page 5-16).
- d. For each channel number, enter the number of the CONVERSANT vector that you want calls coming into Care Center on that channel to go to in the application.

When your cursor is at the Vector column, you can either:

- Press CHOICES [F2] to see a list of vectors that you can choose
- Enter a number for a vector that has not been created



NOTE:

If a call comes in on a channel that specifies the number of a vector that has not been created, the software will not work. If you enter a number here, create the vector, and then return to the setup vector, the name of the newly created vector will appear in the NAME column.

In Figure 5-8, channel 1 points to vector 26, "RC-Main Greet," which has already been created.

5. Repeat step 4 until all of your channels are assigned.



NOTE:

Each CHAN_ASN action can assign 12 channels. The number of channels in your *setup* vector corresponds to the capacity of the configuration you purchased. The *setup* vector in Figure 5-7 on page 5-21 has a capacity of 96 channels.

6. Next, press CLOSE [F3] to return to the Vector Worksheet. Now press CHG-KEYS [F8] and then SAVE [F3]. This brings you back to the Edit Vector menu.

You have now created your first vector, the *setup* vector, which is the main vector within Care Center. Remember, when you create any vectors that are activated by incoming calls, you must reference those vectors here in the *setup* vector. Follow the steps in this sample application and remember to place vectors in service. See the next section, "Placing Vectors in Service".

Placing Vectors in Service

When you develop vectors, Care Center maintains them in a development database. When you place vectors in service, Care Center copies them into a run-time database. Care Center also copies vectors to an archive database when it takes them out of service. After you place vectors in service, you can modify the copies in the development database without modifying the vectors in service (that is, in the run-time database). For more information, see "Placing New CONVERSANT Vectors in Service" on page 4-38.

1. Make sure that you have created all the vectors that you listed in the Vector column on the forms for CHAN_ASN actions in the *setup* vector.
2. Make sure that you have created all the vectors that you referenced in other CONVERSANT vectors.

After you have created all of your CONVERSANT vectors, you are ready to place them in service.

3. Choose the Place New Vectors in Service option on the Vector Configuration menu.

Care Center asks you to verify that you want to execute this action.

4. Respond appropriately by pressing either:
 - CONT [F3] to confirm and continue
 - CANCEL [F6] to cancel the action

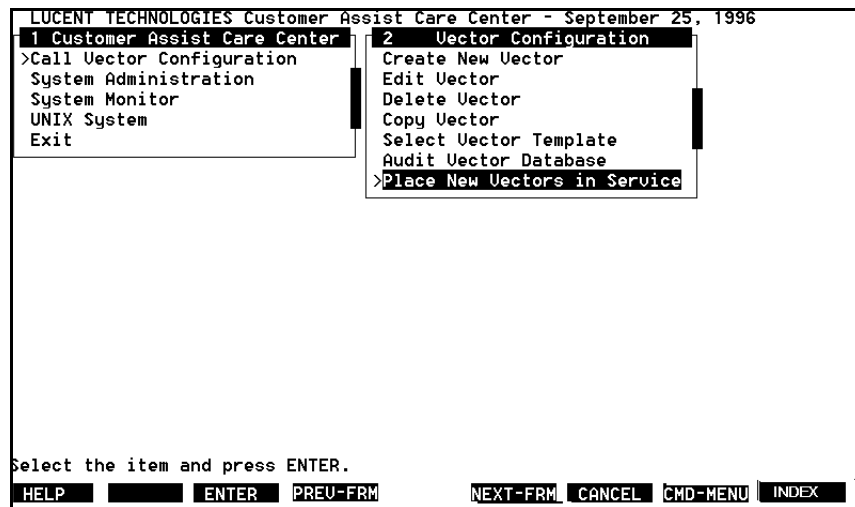


Figure 5-9. Place Vectors in Service Option

Sample Application #2: Standard Announcement

Business Situation

Before Rock Coast Software can design a world-class call center, they must learn how to create standard and dynamic announcements. These announcements are building blocks for more powerful applications such as “Sample Application #4: Automated Attendants” on page 5-49 and “Sample Application #5: Bulletin Boards” on page 5-67.

Standard announcements can respond to callers with messages that answer common questions and maintain interest during the callers' wait. And, because authorized users can record standard announcements from any touch-tone telephone, Rock Coast Software can provide the latest product information to callers. This sample application shows how to create a simple call center with one standard announcement: “Thank you for calling Rock Coast Software. A representative will be with you shortly. We appreciate your patience.”

Dynamic announcements can respond to callers with specific announcements based on call information passed from the DEFINITY G3 or ECS R5 switch to Care Center. One example is passing a VDN to Care Center. Care Center then uses the VDN to play the appropriate announcement for that caller. “Sample Application #3: Dynamic Announcement” on page 5-37 shows how to create a call center that uses a VDN passed from the switch and touch-tone information entered by a caller to play dynamic announcements.

Callflow Diagram

Before every application is built, you should create a callflow diagram to ensure that you completely understand what you are trying to accomplish and what callers will hear and do during calls. The following is a simple diagram for this sample application. The diagrams for the more advanced applications in this chapter are much more complicated.

⇒ NOTE:

The ^ used in callflows designates non-speech text or an action.

2. Standard Announcement

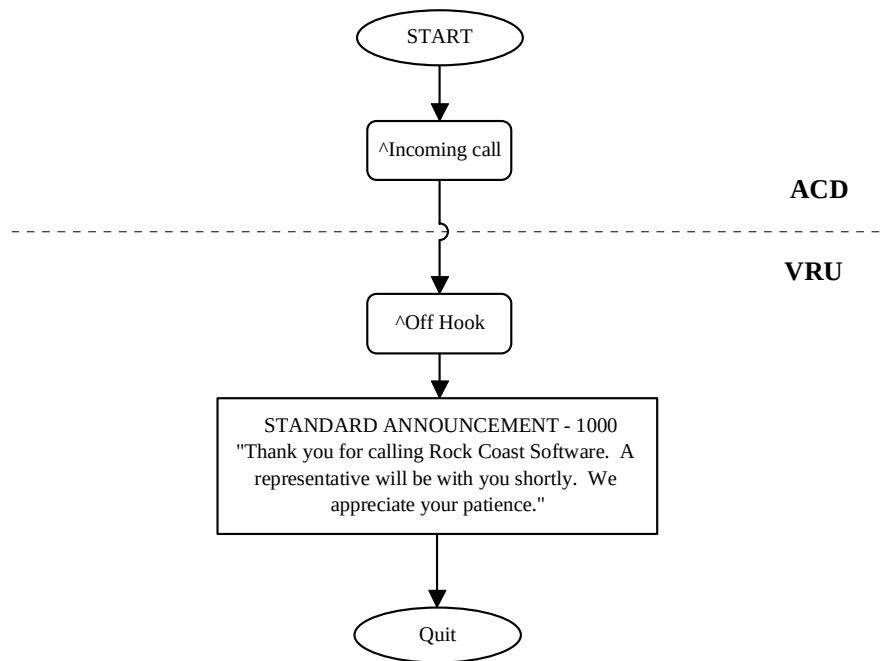


Figure 5-10. Standard Announcement Callflow

ECS R5/DEFINITY Vector

Because Customer Assist Care Center works on the CONVERSANT system, it takes all of its direction from the DEFINITY G3 or ECS R5 switch. The switch vectors are critical to understand because they send callers to the CONVERSANT and Care Center during a call.

The following is an example of what a DEFINITY vector would look like when passing a caller to the CONVERSANT and Care Center to hear a standard announcement.

Assumptions: Agent Split is 1.

1. wait-time 2 secs hearing ringback
2. queue-to main split 1 pri m
3. announcement extension 1000
4. wait-time 2 secs hearing music



NOTE:

This example assumes that you are familiar with the steps in DEFINITY vectors. If you are not, read the first few chapters of the *Lucent DEFINITY Communications System Generic 3 or ECS R5 Call Vectoring/EAS Guide*, 555-230-520 or -521.

CONVERSANT Speech Administration

Now let's explore how to create a standard announcement on the CONVERSANT using Care Center.

1. From the main menu of Care Center, select System Administration, then select Speech Administration, then select Vector Phrase Administration, and then select ADD NEW PHRASE.

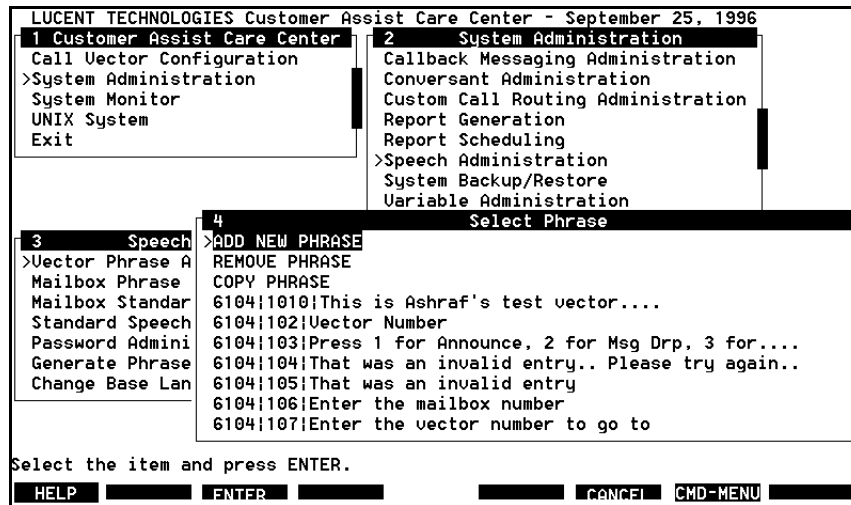


Figure 5-11. Select Phrase Menu Options

Care Center automatically creates a phrase number for you.

NOTE:

The talkfile used when dealing with speech in vectors is #6104 for US English. Some of the talkfile numbers change depending on which language is currently selected. The complete list of talkfiles for US English is as follows:

- Talkfile #6104: Vector Phrases (that is, standard announcements heard by callers)
- Talkfile #6100: Standard Speech (for example, numbers, months, days, etc.)
- Talkfile #6101: Mailbox Custom and Standard Phrases (for example, numbers, confirmations, customer-specific speech callers hear when leaving a message)
- Talkfile #6105: Mailbox prompt phrase

2. Change the Phrase Number to **1000** (or to whatever Phrase number is appropriate). Then, tab to the Phrase Tag and enter a brief description of what this phrase will say (for example, "Rock Coast - Main Greeting"). Then tab to the Phrase Text and enter the exact text as you want callers to hear the announcement (for example, "Thank you for calling Rock Coast Software. A representative will be with you shortly. We appreciate your patience.")

LUCENT TECHNOLOGIES Customer Assist Care Center - September 25, 1996	
1 Customer	5 Add New Phrase to Talkfile 6104
Call Vector	
>System Admin	Add a New Phrase Recorded:
System Moni	Talkfile Number: 6104
UNIX System	Phrase Number: 1000
Exit	
	Phrase Tag: Rock Coast - Main Greeting
	Phrase Text: Thank you for calling Rock Coast Software. A representative will be with you shortly. Thank you for your patience.
3 Sp	
>Vector Phra	
Mailbox Phr	
Mailbox Sta	
Standard Sp	
Password Admini	6104:103:Press 1 for Announce, 2 for Msg Drp, 3 for....
Generate Phrase	6104:104:That was an invalid entry.. Please try again..
Change Base Lan	6104:105:That was an invalid entry
	6104:106:Enter the mailbox number
	6104:107:Enter the vector number to go to
HELP CHOICES SAVE RECORD ENTER CANCEL REFRESH	

Figure 5-12. Add New Phrase Form

3. Press RECORD [F4].



NOTE:

Care Center responds by saying "Adding phrase listing" and "Phrase listing changed."

4. Your cursor will now be blinking on Coding Rate which is the indicator as to the recording quality level at which you would like the software to record your voice. You have four options:

ADPCM16 - Lowest recording quality; Smallest size of resulting speech file
 ADPCM32 - Medium recording quality; Medium size of resulting speech file
 PCM64 - Highest recording quality; Largest size of resulting speech file
 CELP16 - Medium recording quality; Small size of resulting speech file.

5. For this sample application, press CHOICES [F2] until the Coding Rate selected is ADPCM32.

The screenshot displays a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - September 25, 1996". The interface is divided into several sections. On the left, a menu lists options: "1 Customer", "Call Vector", ">System Admi", "System Moni", "UNIX System", and "Exit". The main area shows a sequence of steps. Step 5, "Add New Phrase to Talkfile 6104", includes fields for "Add a New Phrase", "Recorded:", "Talkfile Number: 6104", "Phrase Number: 1000", and "Phrase Tag: Rock Coast -Main Greeting". Step 6, "Record Phrase Number 1000 in talkfile Number 6104", contains fields for "Coding Rate: ADPCM32", "Phrase Number: 1000", "Talkfile Number: 6104", and "Phrase Tag: Rock Coast -Main Greeting". Below these is a large text area for "Phrase Text" containing the sentence: "Thank you for calling Rock Coast Software. A representative will be with you shortly. Thank you for your patience." To the right of the text area is a vertical list of phrases: "re. A", ". Thank", "for....", and "again..". At the bottom, a prompt reads "Enter the coding rate followed by the Return or ENTER key." and a row of buttons includes "HELP", "CHOICES", "CLOSE", "DIAL", "CANCEL", and "REFRESH".

Figure 5-13. Record Phrase Form

6. Press DIAL **[F4]**. Enter the extension of the phone on your desk or the phone you are using during this sample application to record speech. Then enter a working CONVERSANT channel number. In this example, the extension Care Center will call is 8191 and the channel it will call out on is channel 1.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 25, 1996

7 Dial Number File 6104

Telephone Number to Dial: 8191
Dialing out on channel: 1

Exit Launch

Phrase Tag: Rock Coast -Main Greeting

6 Record Phrase Number 1000 in talkfile Number 6104

Coding Rate: ADPCM32
Phrase Number: 1000
Talkfile Number: 6104

Phrase Tag: Rock Coast -Main Greeting

Phrase Text: Thank you for calling Rock Coast Software. A representative will be with you shortly. Thank you for your patience.

re. A
. Thank
for....
again..

HELP LAUNCH ENTER CANCEL REFRESH

Figure 5-14. Dial Number Form

7. Press LAUNCH **[F3]** to have the CONVERSANT call you at your local phone location. The standard process you will use to record speech will be as follows:
 - a. Press 1 - To start Speech Administration
 - b. Press 1 - To record the phrase (for example, Phrase 1000) exactly as it is written in the Phrase Text area on your screen
 - c. Record your phrase over the phone line
 - d. Press 1 - To stop recording
 - e. Press 2 - To playback the phrase recorded
 - f. Press *3 - To install the phrase in Care Center
 - g. Press 9 - To quit Speech Administration
8. Press CLOSE **[F3]**, then press SAVE **[F3]**.



NOTE:

If you have other phrases to record you could do so at this point by repeating steps 2 through 8 above.

9. To see the work you have done, press CANCEL **[F6]**. Then highlight the phrase you just recorded (see Figure 5-15) and press **[ENTER]**.

The Edit Phrase form appears.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 25, 1996
1 Customer Assist Care Center      2 System Administration
  Call Vector Configuration         Callback Messaging Administration
  >System Administration           Conversant Administration
  System Monitor                   Custom Call Routing Administration
  UNIX System                      Report Generation
  Exit                             Report Scheduling
                                   >Speech Administration
                                   System Backup/Restore
                                   Variable Administration

3 Speech                           4 Select Phrase
  >Vector Phrase A                 ADD NEW PHRASE
  Mailbox Phrase                  REMOVE PHRASE
  Mailbox Standar                  COPY PHRASE
  Standard Speech                 >6104!1000!Rock Coast -Main Greeting
  Password Admini                 6104!1010!This is Ashraf's test vector....
  Generate Phrase                 6104!102!Vector Number
  Change Base Lan                 6104!103!Press 1 for Announce, 2 for Msg Drp, 3 for....
                                   6104!104!That was an invalid entry.. Please try again..
                                   6104!105!That was an invalid entry
                                   6104!106!Enter the mailbox number

Select the item and press ENTER.
HELP  ENTER  CANCEL  CMD-MENU
  
```

Figure 5-15. Selecting a Phrase

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 25, 1996
1 Customer      5 Edit Phrase Number 1000 in talkfile Number 6104
  Call Vecto    Edit the Selected Phrase          Recorded: Y
  >System Adm   Phrase Number: 1000              Seconds: 5.6   Coding: ADPCM32
  System Mon    Talkfile Number: 6104            Bytes: 22396  Blks: 2
  UNIX Syste
  Exit

3 S
  >Vector Phr   Phrase Tag: Rock Coast -Main Greeting
  Mailbox Ph
  Mailbox St
  Standard S
  Password Admini
  Generate Phrase
  Change Base Lan

6104!102!Vector Number
6104!103!Press 1 for Announce, 2 for Msg Drp, 3 for....
6104!104!That was an invalid entry.. Please try again..
6104!105!That was an invalid entry
6104!106!Enter the mailbox number

Enter the phrase tag followed by the Return or ENTER key.
HELP  CHOICES  CLOSE  RECORD  ENTER  CANCEL  REFRESH
  
```

Figure 5-16. Edit Phrase Form

➡ **NOTE:**
 The "Y" next to Recorded indicates that the phrase has been recorded. Also, the length of the recorded phrase in seconds is

shown along with the Coding Rate and size in bytes of the recorded phrase.

10. If you don't wish to review the phrase you just recorded, press CANCEL **[F6]** four times to get back to the Care Center main menu.

CONVERSANT Vector

Now let's explore how to create a CONVERSANT vector that plays the standard announcement to callers.

1. At the Care Center main menu, select Call Vector Configuration and press **[ENTER]**. Then select Create New Vector and press **[ENTER]**.

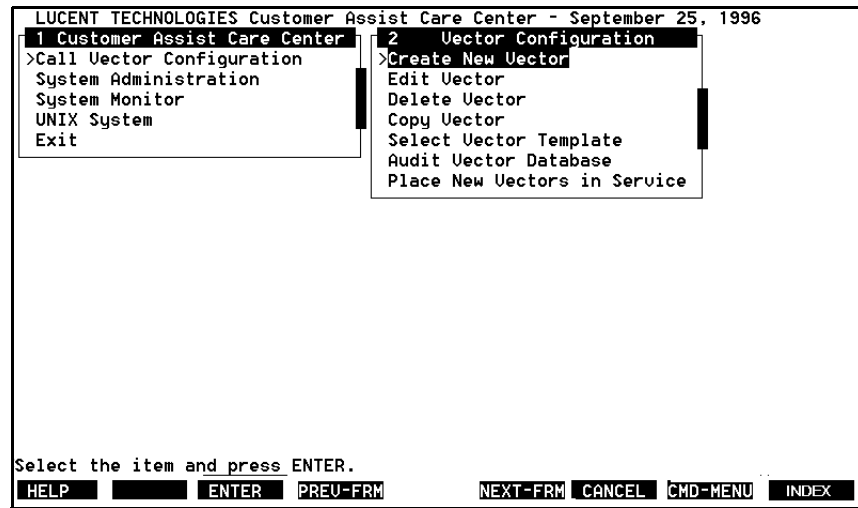


Figure 5-17. Vector Configuration Main Menu

2. When the vector worksheet appears, enter a brief description of the vector as the Vector Name (for example, "RC-Main Greet"). Then enter a complete name at the Description line (for example, "Rock Coast - Main Greeting").
3. Tab to the first Step in the vector and press CHG-KEYS **[F8]**. Then press CHOICES **[F2]** to see the selection of vector actions.

This vector will have two steps. Each of the steps will contain an action: ANNOUNCE and QUIT.

Call Vector Configurationmer Assist Care Center - December 11, 1996

1 Custo 4 EDIT VECTOR NUMBER 39 STEPS

>Call Ue Vector Name: RC-Main Greet Vector Number: 39
System Description: Rock Coast Main Greeting
System
UNIX Sy
Exit

Step	Action	Description
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		

3 Edi

30!Dyna

31!EWT

32!Dyna

33!EWT

34!Queu

35!Rout

36!EWT

37!Queu

38!Rout

>39!RC-M

5 Select Action

>ANNOUNCE GET_DIGT REPORT
CHAN_ASN GET_SPCH SCHEDULE
CHG_LANG GLOBAL SET
CONVERSE GOTO SPCH_ADMN
DATA_RTN HANG_ACT SPEAK_NUM
DYNAMIC LOOK_UP SWITCH
DYN_ANNOU MENU TRANSFER
EWT MSG_DROP TRANSCRIBE
EXECUTE OFF_HOOK
GET_DIALP QUIT

Select the action and press ENTER.

HELP ENTER PREU-FRW NEXT-FRW CANCEL

Figure 5-18. Select Action Screen

4. Choose ANNOUNCE on the Select Action menu and press **ENTER**.
The cursor will be blinking at the Phrase Tag line.
5. Press CHOICES **F2** and select the phrase you want from the menu that appears. For example, select phrase number 5000.



NOTE:

The phrase tag appears as the description of the ANNOUNCE action on the Edit Vector Steps form. See Figure 5-20 on page 5-36.



NOTE:

The figures that illustrate this sample application have an inconsistency. The phrase number shown here and the phrase number that you entered in Figure 5-12 on page 5-29 should match. In other words, the phrase tag should be either 1000 or 5000.

```
Call Vector Configurationmer Assist Care Center - December 11, 1996
1 Custo 4 EDIT VECTOR NUMBER 39 STEPS
>Call Ue
System Vector Name: RC-Main Greet Vector Number: 39
System Description: Rock Coast Main Greeting
UNIX Sy

6 ANNOUNCE Action Step Number 1 for vector 39

ANNOUNCE Action step speaks a phrase to caller

Talkfile Number: 6104 US English
Allow Interrupt: yes

Phrase Tag: Rock Coast - Main Greeting
Phrase Number: 5000

Phrase Text: Thank you for calling Rock Coast Software. A
representative will be with you shortly. Thank
you for your patience.

Press the CHOICES key for the list of valid phrase tags.
HELP CHOICES CLOSE ENTER CANCEL REFRESH ADD-PHR
```

Figure 5-19. ANNOUNCE Action Form

6. Press CLOSE **[F3]**.
7. Tab to the second step in the vector. Press CHG-KEYS **[F8]**, and then press CHOICES **[F2]** to see the selection of vector actions. Select QUIT and press **(ENTER)**.
8. Enter the comment: "Caller returns to switch."
For an example of a QUIT action form, see Figure 5-31 on page 5-48.
9. Press CLOSE **[F3]**.

Call Vector Configurationmer Assist Care Center - December 11, 1996

1 Cust **4 EDIT VECTOR NUMBER 39 STEPS**

>Call Use
System
System
UNIX Sy
Exit

Vector Name: RC-Main Greet Vector Number: 39
Description: Rock Coast Main Greeting

Step	Action	Description
1	ANNOUNCE	Rock Coast - Main Greeting
2	QUIT	Caller returns to switch
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		

Enter the vector name.

HELP **INSERT** **REMOVE** **DEFINE** **ENTER** **CANCEL** **REFRESH** **CHG-KEYS**

Figure 5-20. Finished CONVERSANT Vector

Now you have created a sample application with one vector that plays a standard announcement to all callers.

10. Put the vector into service.

Refer to "Placing Vectors in Service" on page 5-23.

Sample Application #3: Dynamic Announcement

Business Situation

Reconsider the situation of Rock Coast Software. In this sample application, the company would like callers to dial a specific department phone number that Care Center recognizes and then uses to greet each caller with a dynamic announcement for the called department. There are two main departments: Customer Service and Technical Support.

Rock Coast would also like to personally recognize their incoming customer callers with a dynamic announcement mentioning their company's name. In this way, the Rock Coast can provide better a more personalized approach to customer service.

The lessons learned in earlier sample applications are background for this sample application.

Callflow Diagrams

The following three diagrams show the callflow for this sample application.

3. Dynamic Announcement

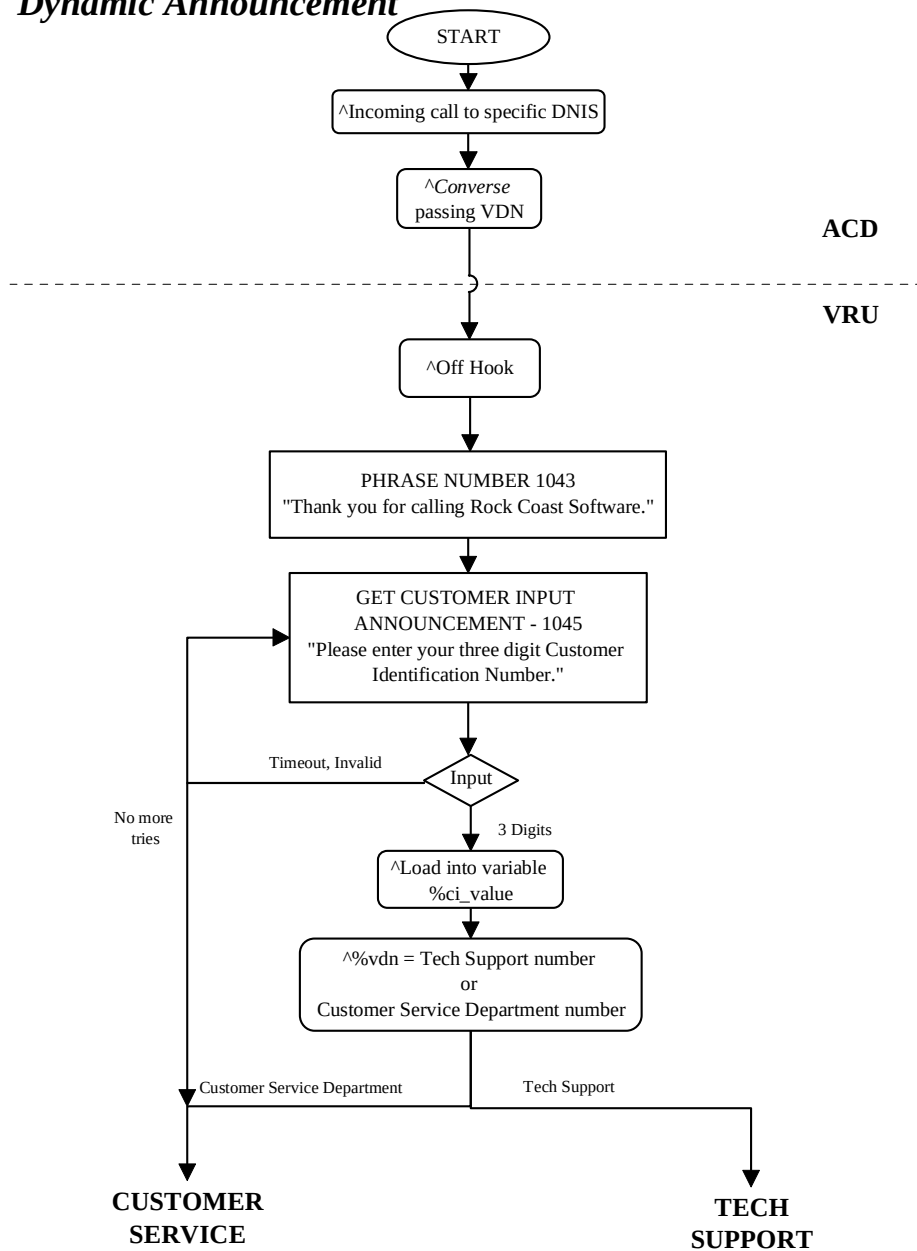


Figure 5-21. Callflow for Dynamic Announcement 1

3. *Dynamic Announcement*

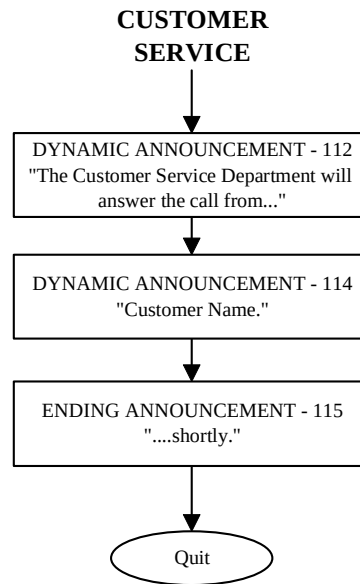


Figure 5-22. Callflow for Dynamic Announcement 2

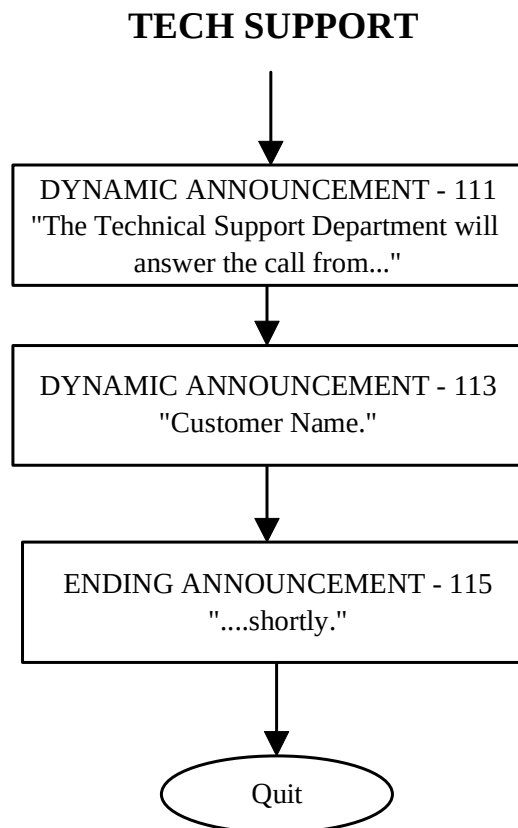


Figure 5-23. Callflow for Dynamic Announcement 3

ECS R5/DEFINITY Vectors

This sample application uses two DEFINITY vectors. Both vectors use a Converse vector step to pass a caller to the CONVERSANT and Care Center.

Assumptions: Agent Queue Splits are 1 (Customer Service) and 3 (Technical Support). The CONVSERSANT split is 2.

If you are not familiar with DEFINITY call vectoring, read the first few chapters of the *Lucent DEFINITY Communications System Generic 3 or ECS R5 Call Vectoring/EAS Guide*, 555-230-520 or -521.

Customer Service Vector

1. wait-time 2 secs hearing ringback
2. queue-to main split 1 pri m
3. wait-time 0 secs hearing music
4. converse-on split 2 pri m passing vdn and none
5. wait-time 2 secs hearing music

Technical Support Vector

1. wait-time 2 secs hearing ringback
2. queue-to main split 3 pri m
3. wait-time 0 secs hearing music
4. converse-on split 2 pri m passing vdn and none
5. wait-time 2 secs hearing music

CONVERSANT Speech Administration

After you have diagrammed your callflow and created your DEFINITY vectors, record your CONVERSANT speech phrases. Typically, it is easier to record speech before creating CONVERSANT vectors.

For this sample application, you will need to record the following phrases: 1043, 1045, and 111-115. See the callflow for complete text. All the phrases are in Talkfile 6104.

For information on how to create new vector phrases or how to record vector phrases, refer to "Sample Application #2: Standard Announcement" on page 5-25.

NOTE:

The callflow diagrams show two phrases, 113 and 114, that announce "Customer Name." These phrases are actually announcing the name of the caller's company, such as Longhaul Trucking Company or Green Thumb Garden Center. Rock Coast must record a separate phrase for each of its customers.

CONVERSANT Vector

Now let's examine how to create a dynamic announcement using Care Center and the CONVERSANT vectoring language. This sample application uses one CONVERSANT vector, called RC-Main Greet.

1. To create a new vector or edit an existing vector, go to the main menu, select **Call Vector Configuration**, and then select either **Create New Vector** or **Edit Vector**.
2. Specify the 9 steps in the vector.
Refer to "Step Descriptions" below.
3. Save your vector by pressing **SAVE [F3]**.
This saves it to the development database.
4. When you are ready to activate your application, place the vector in service.
Refer to "Placing Vectors in Service" on page 5-23.

Figure 5-24 shows the finished vector.

The screenshot displays the 'EDIT VECTOR NUMBER 40 STEPS' screen in the LUCENT TECHNOLOGIES Customer Assist Care Center. The interface is divided into a left-hand menu and a main content area. The menu on the left includes options like '1 Cust', '>Call Ve', 'System', 'System', 'UNIX Sy', 'Exit', '3 Edi', '31|EWT', '32|Dyna', '33|EWT', '34|Queu', '35|Rout', '36|EWT', '37|Queu', '38|Rout', '39|RC-M', and '>40|RC-M'. The main content area shows the vector details: 'Vector Name: RC-Main Greet' and 'Vector Number: 40'. Below this, a table lists the steps of the vector:

Step	Action	Description
1	CONVERSE	collect 3 digits into %vdn
2	ANNOUNCE	Thank you for calling
3	ANNOUNCE	Please enter 3 digits
4	GET_DIGIT	get 3 digits and load into %ci_value
5	GOTO	Step 3 if %num_dig_got != 3
6	DYN_ANNOU	phrase in %vdn
7	DYN_ANNOU	phrase in %ci_value
8	ANNOUNCE	...shortly.
9	QUIT	End vector
10		
11		
12		
13		
14		

At the bottom of the screen, there is a prompt 'Enter the vector name.' and a row of buttons: 'HELP', 'INSERT', 'REMOVE', 'DEFINE', 'ENTER', 'CANCEL', 'REFRESH', and 'CHG-KEYS'.

Figure 5-24. Finished RC-Main Greet Vector

Step Descriptions

The following is a step-by-step analysis of the 9 steps in the finished vector.

1. CONVERSE

Accepts the 3-digit VDN from the switch and places the value into a variable named `%vdn`. The CONVERSANT vector will use this information to speak either the Customer Service or Technical Support department name.

The CONVERSE action also places the total number of digits collected into a variable called `%num_dig_got`.

Step	Action	Description
1		
2		
3		
4		
5		
6	CONVERSE ACTION, STEP 1 for vector 40	
7		Converse Step gathers TouchTones
8		Number of Digits to Collect: 3
9		Load Digits into Variable: %vdn
10		Place number of digits collected into: %num_dig_got
11		
12		Comment: collect 3 digits into %vdn
13		
14		

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 5-25. CONVERSE Action Form

2. ANNOUNCE

Speaks the opening announcement: "Thank you for calling Rock Coast Software."

LUCENT TECHNOLOGIES Customer Assist Care Center - December 13, 1996	
1 Cust	4 EDIT VECTOR NUMBER 40 STEPS
>Call Use	
System	Vector Name: RC-Main Greet Vector Number: 40
System	Description: Rock Coast Main Greeting
UNIX Sy	
5 ANNOUNCE Action Step Number 2 for vector 40	
ANNOUNCE Action step speaks a phrase to caller	
Talkfile Number:	6104 US English
Allow Interrupt:	yes
Phrase Tag:	Thank you for calling
Phrase Number:	1043
Phrase Text:	Thank you for calling Rock Coast Software.
Enter the talkfile.	
HELP CHOICES CLOSE ENTER CANCEL REFRESH ADD-PHR	

Figure 5-26. ANNOUNCE Action Form

3. ANNOUNCE

Speaks the announcement requesting callers to enter their 3-digit touch-tone customer-identification number.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 13, 1996	
1 Cust	4 EDIT VECTOR NUMBER 40 STEPS
>Call Use	
System	Vector Name: RC-Main Greet Vector Number: 40
System	Description: Rock Coast Main Greeting
UNIX Sy	
5 ANNOUNCE Action Step Number 3 for vector 40	
ANNOUNCE Action step speaks a phrase to caller	
Talkfile Number:	6104 US English
Allow Interrupt:	yes
Phrase Tag:	Please enter 3 digits
Phrase Number:	1045
Phrase Text:	Please enter your three digit Customer Identification Number.
Enter the talkfile.	
HELP CHOICES CLOSE ENTER CANCEL REFRESH ADD-PHR	

Figure 5-27. ANNOUNCE Action Form

4. GET_DIGT

Collects 3 digits from callers and puts the digits into a variable *%ci_value*. This step also counts the total number of digits heard from the caller and puts that value into a variable *%num_dig_got*.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - December 13, 1996
1 Custo 4 EDIT VECTOR NUMBER 40 STEPS
>Call Use
System
System
UNIX Sy
Exit
3 Edi
31|EWT
32|Dyna
33|EWT
34|Queu
35|Rout
36|EWT
37|Queu
38|Rout
39|RC-M
>40|RC-M

Vector Name: RC-Main Greet      Vector Number: 40
Description: Rock Coast Main Greeting

Step  Action      Description
1    CONVERSE    collect 3 digits into %vdn
2    ANNOUNCE    Thank you for calling
3    ANNOUNCE    Please enter 3 digits
4    GET         5 GET_DIGT ACTION STEP 4 for vector 40
5    GOTO
6    DYN         Get Digits Step gathers TouchTones from caller
7    DYN
8    ANNO        Number of Digits to Collect: 3
9    QUIT
10
11
12
13
14

Load Digits into Variable: %ci_value
Place number of digits collected into: %num_dig_got
Comment:

Enter the number follow by the Return or ENTER key.
HELP CHOICES CLOSE ENTER CANCEL REFRESH
  
```

Figure 5-28. GET_DIGT Action Form

5. GOTO

Loops the caller back to step 3 if they did not enter at least three digits, that is, if the value of the variable *%num_dig_got* does not equal 3.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - December 13, 1996
1 Custo 4 EDIT VECTOR NUMBER 40 STEPS
>Call Use
System Vector Name: RC-Main Greet Vector Number: 40
System Description: Rock Coast Main Greeting
UNIX Sy
Exit Step Action Description
3 Edi 1 CONVERSE collect 3 digits into %vdn
31|EWT 2 ANNOUNCE Thank you for calling
32|Dyna 3 ANNOUNCE Please enter 3 digits
33|EWT 4 GET_DIGT get 3 digits and load into %ci_value
5 5 GOTO Step 3 if %num_dig_got != 3
5 GOTO Action Step Number 5 for vector 40

GOTO compares a variable with a value and routes to a vector or step.

GOTO Step 3 ANNOUNCE

IF variable %num_dig_got != 3

Comment:

Enter "Vector" or "Step" followed by the Return or ENTER key.
HELP CHOICES CLOSE ENTER CANCEL REFRESH

```

Figure 5-29. GOTO Action Form

6. DYN_ANNOU

Speaks the phrase whose number corresponds to the VDN that has been passed from the switch and placed in the variable %vdn. If the DEFINITY vector passed the VDN for the Technical Support Department, this step would speak the phrase: "The Technical Support Department will answer the call from...."

For example, if the DEFINITY vector has passed 111 from the switch, there should be a vector phrase number 111 in Talkfile #6104 for the department with that VDN. In the callflow diagrams for this sample application, 111 is both the VDN and the vector phrase number for the Technical Support Department at Rock Coast Software.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - December 13, 1996
1 Custo 4 EDIT VECTOR NUMBER 40 STEPS
>Call Use
System Vector Name: RC-Main Greet Vector Number: 40
System Description: Rock Coast Main Greeting
UNIX Sy
Exit

3 Edi
31!EWT 2 CONVERSE collect 3 digits into %udn
32!Dyna 3 ANNOUNCE Thank you for calling
33!EWT 4 ANNOUNCE Please enter 3 digits
34!Queu 5 GET_DIGT get 3 digits and load into %ci_value
35!Rout 6 GOTO Step 3 if %num_dig_got != 3
36!EWT 7 DYN_ANNOU phrase in %udn
37!Queu 8 DYN_ANNOU phrase in %ci_value
38!Rout 9 ANN 5 DYN_ANNOUNCEMENT Action Step Number 6 for vector 40
39!RC-M 10 QUI
>40!RC-M 11 DYNAMIC ANNOUNCE Action step speaks a phrase to caller
12
13 Talkfile Number: 6104 Allow Interrupt: yes
14
15 Phrase Number: %udn

Enter the phrase number follow by the Return or ENTER key.
HELP CHOICES CLOSE CANCEL REFRESH

```

Figure 5-30. DYN_ANNOU Action Form

7. DYN_ANNOU

Speaks the caller's company name. This step uses the 3-digit number entered by the caller (variable *%ci_value*) as the indicator to refer to the correct phrase in Talkfile #6104.

**NOTE:**

In this example, Rock Coast will need to record a phrase to speak the company name of each of its customers.

8. ANNOUNCE

Speaks the phrase "shortly" to finish the concatenated announcement.

9. QUIT

Quits the application and returns the call to the switch unconditionally.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 13, 1996

1 Cust **4 EDIT VECTOR NUMBER 40 STEPS**

>Call Use
System
System
UNIX Sy
Exit

Vector Name: RC-Main Greet Vector Number: 40
Description: Rock Coast Main Greeting

Step	Action	Description
1	CONVERSE	collect 3 digits into %vdn
2	ANNOUNCE	Thank you for calling
3	ANNOUNCE	Please enter 3 digits
4	GET	5 QUIT Action Step Number 9 for vector 40
5	GOTO	
6	DYN	QUIT Action Step Ends Call Processing
7	DYN	
8	ANNO	
9	QUIT	
10		
11		Comment: End vector
12		
13		
14		

3 Edi
31|EWT
32|Dyna
33|EWT
34|Queu
35|Rout
36|EWT
37|Queu
38|Rout
39|RC-M
>40|RC-M

Please enter your comments.

HELP CLOSE CANCEL REFRESH

Figure 5-31. QUIT Action Form

Sample Application #4: Automated Attendants

Business Situation

An Automated Attendant, or Auto Attendant as it is commonly called, provides menu-driven routing options for incoming callers. Callers are prompted with menus from which they can choose routing options using either their touch-tone keypad or their voice in a speech-recognition environment.

In this sample application, Rock Coast Software has decided that one incoming phone line will pass callers to the Auto Attendant for routing information. Then callers will be sent back to the switch for proper routing based on information gathered in the CONVERSANT system. This Auto Attendant allows touch tones and speech recognition. It contains five options for routing, one of which routes callers to another CONVERSANT application, a fax-on-demand system.

NOTE:

Automatic Speech Recognition (ASR) for WholeWord is required on the CONVERSANT to use speech recognition. Likewise, the optional Speech Recognition package that works with Customer Assist Care Center Version 6.0 is also required to use speech recognition.

The lessons learned in earlier sample applications are background for this sample application.

Callflow Diagrams

The following three diagrams show the callflow for this sample application.

4. Auto Attendant

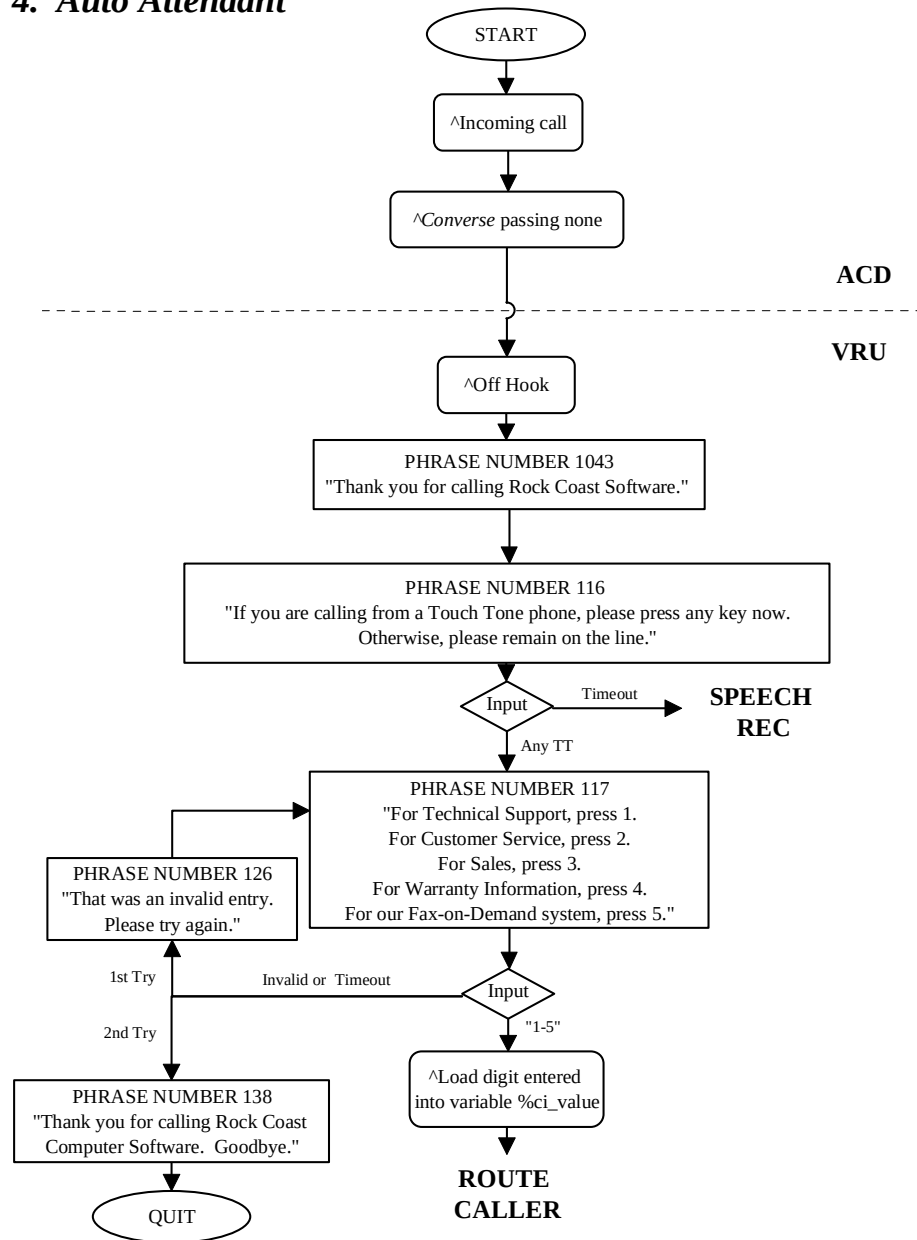


Figure 5-32. Auto Attendant Callflow 1

4. Auto Attendant

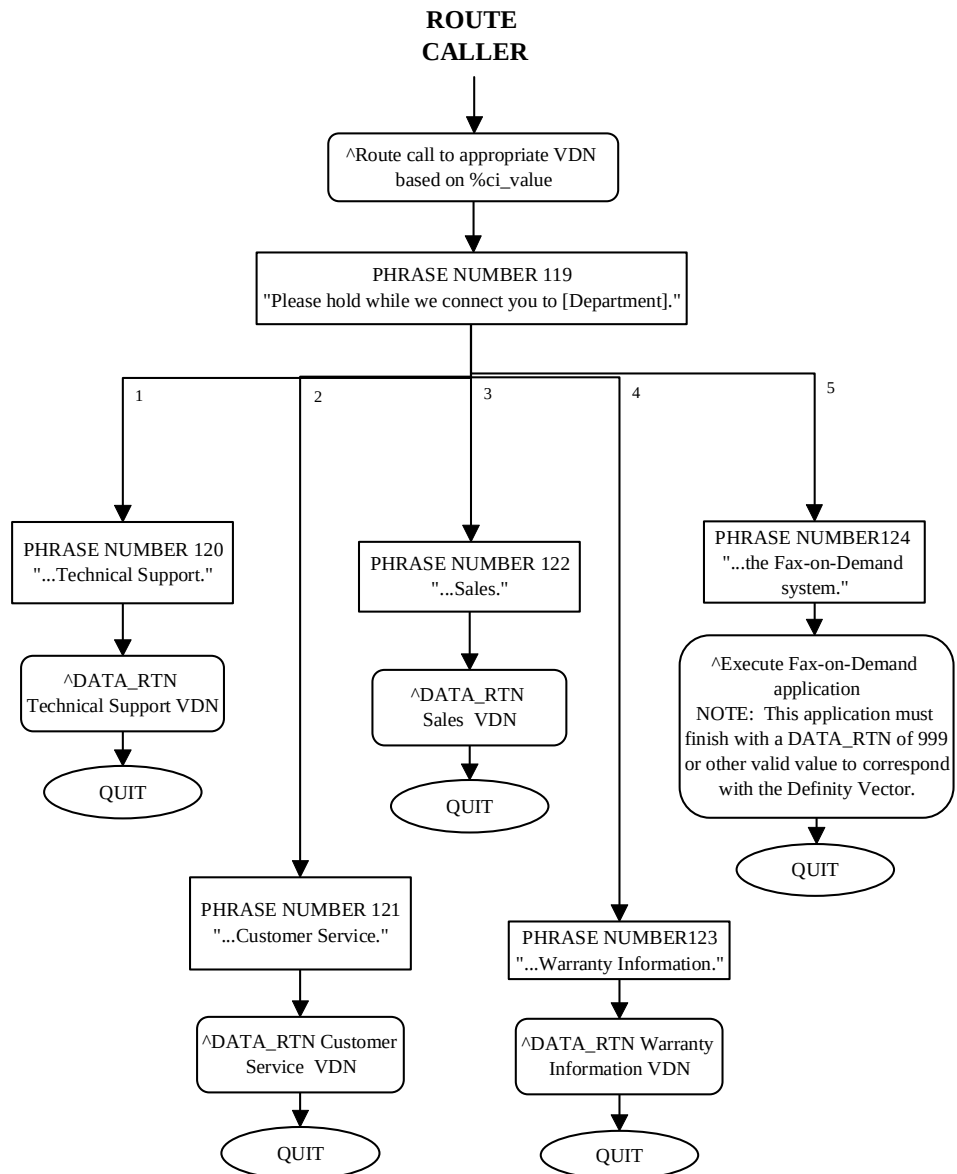


Figure 5-33. Auto Attendant Callflow 2

4. Auto Attendant

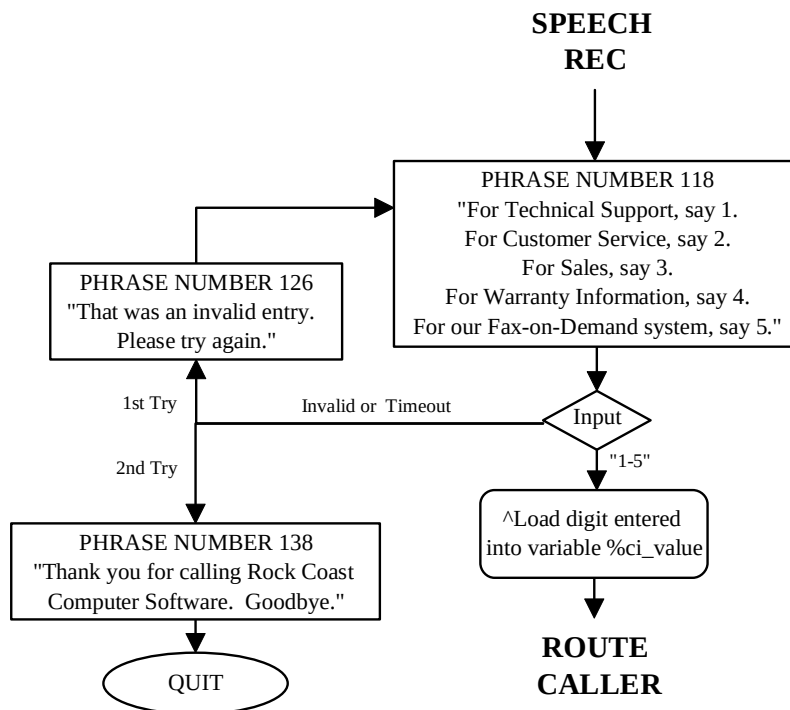


Figure 5-34. Auto Attendant Callflow 3

ECS R5/DEFINITY Vector

This sample application uses one DEFINITY vector. The vector uses a Converse vector step to pass a caller to the CONVERSANT and Care Center.

Assumptions: Agent Queue Splits are 1 (Customer Service) and 3 (Technical Support). The CONVERSANT split is 2.

1. wait-time 2 secs hearing ringback
2. converse on split 2 pri m passing none and none
3. collect 3 digits after announcement none
4. goto step 6 if digits = 999
5. route to digits with coverage n
6. stop

CONVERSANT Speech Administration

In this sample application, you will need to record speech for phrase numbers 1043, and 116-124, 126, and 138. See the callflow for the text of these phrases.

For information about how to create new vector phrases or how to record vector phrases, please refer to “Sample Application #2: Standard Announcement” on page 5-25.

CONVERSANT Vectors

This AutoAttendant contains four vectors:

1. RC-AutoAttend (see “First Vector — RC-AutoAttend” on page 5-54)
2. RC-AA-TT Menu (see “Second Vector — RC-AA-TT Menu” on page 5-55)
3. RC-AA-Rotary (see “Third Vector — RC-AA-Rotary” on page 5-60)
4. Quit (see “Fourth Vector — Quit Vector” on page 5-66)

For each vector, the sample application first shows the steps in the finished vector and then describes each of the steps.

First Vector — RC-AutoAttend

This vector greets incoming callers, asks them if they are calling from a touch-tone phone, and based on the callers' responses, routes the calls to either a touch-tone or speech-recognition vector (second or third vector, respectively).

The screenshot shows a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - December 17, 1996". The main menu on the left includes options like "1 Custo", ">Call Ue", "System", "System", "UNIX Sy", and "Exit". The selected option is "3 Edi". The main display area is titled "EDIT VECTOR NUMBER 39 STEPS". It shows the following details:

- Vector Name: RC-AutoAttend
- Vector Number: 39
- Description: Rock Coast Software AutoAttendant

Step	Action	Description
1	ANNOUNCE	Thank you for calling Rock Coast Software.
2	ANNOUNCE	If you are calling from a TouchTone phone...
3	GET_DIGIT	get 1 digits and load into %ci_value
4	GOTO	Vector 40 if %num_dig_got = 1
5	GOTO	Vector 42 unconditionally
6	QUIT	
7		
8		
9		
10		
11		
12		
13		
14		

At the bottom, there is a prompt "Enter the vector name." and a row of buttons: HELP, INSERT, REMOVE, DEFINE, ENTER, CANCEL, REFRESH, and CHG-KEYS.

Figure 5-35. Finished RC-AutoAttend Vector

Step Descriptions

1. ANNOUNCE

Speaks the opening announcement: "Thank you for calling Rock Coast Software."

2. ANNOUNCE

Speaks an announcement that asks the caller to identify whether they are using a touch-tone phone. Callers may be calling from a rotary phone, or they may wish to use speech recognition to navigate the Auto Attendant.

3. GET_DIGIT

Accepts any digits entered by the caller and puts the value into a variable called `%ci_value`. This step also counts the total number of digits heard from the caller and puts that value into a variable called `%num_dig_got`. If `%num_dig_got` is equal to or greater than 1, then the caller has a touch-tone phone.

4. GOTO

Sends callers that identified themselves as having a touch-tone phone to the touch-tone vector. See "Second Vector — RC-AA-TT Menu" on page 5-55.

**NOTE:**

Since any touch-tone entry will signify that the customer is using a touch-tone phone, this step looks at the value of `%num_dig_got`.

5. GOTO

If Customer Assist Care Center doesn't "hear" touch tones (that is, if `%num_dig_got = 0`), it assumes the caller has a rotary phone or is requesting the use of speech recognition. This step then routes the caller to the Speech Recognition vector unconditionally. See "Third Vector — RC-AA-Rotary" on page 5-60.

6. QUIT

Quits the vector and returns control of the call to the DEFINITY vector.

Second Vector — RC-AA-TT Menu

This vector provides an AutoAttendant menu for callers using touch-tone phones.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 17, 1996		
1 Custd 4 EDIT VECTOR NUMBER 40 STEPS		
>Call Use	Vector Name:	RC-AA-TT Menu
System	Vector Number:	40
System	Description:	Rock Coast AutoAttendant Touch Tone Menu
UNIX Sy		
Exit		
	Step	Action Description
	1	MENU Tech Support 1, Cust Serv 2, Sales 3, Warr 4 Fax 5
3 Edit	2	ANNOUNCE Please hold while we connect you to...
35 Rout	3	DYN_ANNOU phrase in %data1
36 EWT	4	GOTO Step 7 if %data1 = 124
37 Queu	5	DATA_RTN to PBX with *01
38 Rout	6	QUIT
39 RC-A	7	EXECUTE program: FaxSystem
>40 RC-A	8	QUIT
41 exec	9	
42 RC-A	10	
43 Quit	11	
44 RC-A	12	
	13	
	14	
HELP INSERT REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS		

Figure 5-36. Finished RC-AA-TT Menu Vector

Step Descriptions

1. MENU

This action speaks a phrase that describes 5 menu choices and then provides routing decisions for callers that select 1 of the choices with their touch-tone phones.

The Output Value (variable *%data1*) is a 3-digit number.

- For the first 4 menu choices, this number corresponds to the VDN of a department (Technical Support, Customer Service, Sales, or Warranty Information), which has a speech phrase with the same number. For example, the VDN for Technical Support is 120. The number of the "Technical Support" speech phrase is also 120.
- For the fifth menu choice, the GOTO action in step 4 uses the Output Value (124) to send the call to step 7, which executes the fax-on-demand system. The speech phrase for "the fax-on-demand system" is 124.

The DYN_ANNOUN action in step 3 speaks a dynamic announcement using the speech phrase specified by the value in *%data1*.

There are two screens for the MENU action. You access the second screen (shown in Figure 5-38 on page 5-57) by pressing NEXTPAGE **F5**.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 17, 1996

5 MENU Action Step Number 1 for vector 40

NORMAL INPUT :

Talkfile: 104 US English

Prompt Phrase: Tech Support 1, Cust Serv 2, Sales 3, Warr 4 Fax 5 117

Number of digits to collect : Min 1 Max 1

Time to wait for input (sec): 1st digit 6 Next digit(s) 4

Place in Variables :

Input %ci_value	Output %data1	GOTO Vector	Vector Name
1	120	CONT	
2	121	CONT	
3	122	CONT	
4	123	CONT	
5	124	CONT	

Confirm Input No

Enter the talkfile.

HELP CHOICES CLOSE PREUPAGE NEXTPAGE CANCEL REFRESH ADD PHR

Figure 5-37. MENU Action Form: Normal Input

```

LUCENT TECHNOLOGIES Customer Assist Care Center - December 17, 1996
5 MENU Action Step Number 1 for vector 40

SPECIAL CASES :
  Caller's input not on list :
    Speak Phrase : That was an invalid entry. Please try again. 126
    Max. number of tries : 2
    Output Value : CONT GOTO Vector : 43 Quit

  Caller did not enter the 1st digit within the time allowed :
    Speak Phrase : That was an invalid entry. Please try again. 126
    Max. number of tries : 2
    Output Value : CONT GOTO Vector : 43 Quit

  Caller did not enter the minimum number of digits required :
    Speak Phrase : That was an invalid entry. Please try again. 126
    Max. number of tries : 2
    Output Value : CONT GOTO Vector : 43 Quit

  Caller has no more tries to enter valid input :
    Speak Phrase :

Enter the phrase tag for input not on list above.
HELP CHOICES CLOSE PREVPAGE NEXTPAGE CANCEL REFRESH ADD PHR
  
```

Figure 5-38. MENU Action Form: Special Cases



NOTE:

The second page of the MENU action is helpful because it allows for error checking, input confirmation, and error routing.

2. ANNOUNCE

Speaks a standard announcement: "Please hold while we connect you to..."

3. DYN_ANNOU

Speaks a dynamic announcement: a speech phrase identified by the value currently in the variable *%data1*. This phrase is the name of the destination to which the caller is being routed, either a department (Technical Support, Customer Service, Sales, or Warranty Information) or the fax-on-demand system.

4. GOTO

Routes the caller to step 7, which executes the fax-on-demand application, if the variable *%data1* is 124. 124 is also the number of the speech phrase for "the fax-on-demand system."

5. DATA_RTN

Sends the VDN number, which is the current value of the variable *%data1*, back to the switch so it knows where to route the caller.

The DATA_RTN action also sends a FAC (feature access code) to the switch. The FAC tells the switch what it should do with the passed data.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 17, 1996			
1 Cust	4	EDIT VECTOR NUMBER 40 STEPS	
>Call Use		Vector Name: RC-AA-TT Menu	Vector Number: 40
System		Description: Rock Coast AutoAttendant Touch Tone Menu	
System		5 Data Return Action, Step Number 5 for vector 40	
UNIX Sy		Step	Action
Exit		1	MENU
		2	ANNOUNCE
3 Edi		3	DYN_ANNOU
34!Queu		4	GOTO
35!Rout		5	DATA_RTN
36!EWI		6	QUIT
37!Queu		7	EXECUTE
38!Rout		8	QUIT
39!RC-A		9	
>40!RC-A		10	
41!exec		11	
42!RC-A		12	
43!Quit		13	
		14	
		DATA_RTN Action returns information to switch.	
		Feature Access Code: x01	
		Data Return Segment 1: %data1	
		Data Return Segment 2:	
		Data Return Segment 3:	
		Data Return Segment 4:	
		Data Return Segment 5:	
		Data Return Segment 6:	
		Data Return Segment 7:	
		Data Return Segment 8:	
		Comment:	
HELP CHOICES CLOSE ENTER CANCEL REFRESH			

Figure 5-39. DATA_RTN Action Form

6. QUIT

Quits the CONVERSANT vector and returns the call to the DEFINITY vector.

7. EXECUTE

Executes the fax-on-demand system.

The screen shows the EXECUTE action's dialog box as well as some of the applications currently available on the CONVERSANT.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 17, 1996	
1 Custd	4 EDIT VECTOR NUMBER 40 STEPS
>Call Use	Vector Name: RC-AA-TT Menu Vector Number: 40
System	D 5 EXECUTE ACTION 7 for vector 40
System	S EXECUTE ACTION STARTS A NEW PROGRAM
UNIX Sy	Application: FaxSystem Write Call Data Record Immed.:yes
Exit	
3 Edi	
35 Rout	Argument 1: _____
6 Choices	Argument 2: _____
AusEngccc	Argument 3: _____
AusEngsphad	Argument 4: _____
C4AUDIT	Argument 5: _____
DT1	Argument 6: _____
DT2	Argument 7: _____
>FaxSystem	Argument 8: _____
GMDop	Argument 9: _____
GTMn	Argument 10: _____
GTMsg	Return Value: %return_vlu
GTStr	Comment: _____
ENTER CANCEL	

Figure 5-40. EXECUTE Action Form

8. QUIT

Quits the CONVERSANT vector.

Third Vector — RC-AA-Rotary

This vector provides an AutoAttendant menu for callers using Speech Recognition.

The screenshot displays a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - December 17, 1996". The main window is titled "EDIT VECTOR NUMBER 42 STEPS". On the left, a menu shows options: "1 Cust", ">Call Use", "System", "System", "UNIX Sy", and "Exit". The main area shows the configuration for "Vector Name: RC-AA-Rotary" and "Vector Number: 42", with a description "Rock Coast AutoAttendant for Rotary". Below this is a table of steps:

Step	Action	Description
1	SET	%num_tried = %num_tried = 0
2	GET_SPCH	get digits and load into %ci_value
3	GOTO	Step 7 if %num_dig_got = 1
4	SET	%num_tried = %num_tried + 1
5	GOTO	Vector 43 if %num_tried = 2
6	GOTO	Step 2 unconditionally
7	SET	%ci_value = %ci_value + 119
8	ANNOUNCE	Please hold while we connect you to...
9	DYN_ANNOU	phrase in %ci_value
10	GOTO	Step 13 if %ci_value = 124
11	DATA_RTN	to PBX with *01
12	QUIT	
13	EXECUTE	program: FaxSystem
14	QUIT	

At the bottom, there is a prompt "Enter the vector name." and a row of buttons: "HELP", "INSERT", "REMOVE", "DEFINE", "ENTER", "CANCEL", "REFRESH", and "CHG-KEYS".

Figure 5-41. Finished RC-AA-Rotary Vector

Step Descriptions

1. SET

Sets a counter variable, *%num_tried*, to 0. The vector uses this variable to count the number of times that a caller tries to speak the number of a valid menu choice at the GET_SPCH action. A caller is allowed 2 tries. After 2 unsuccessful tries, the GOTO action in step 5 routes the caller to the quit vector.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 17, 1996

1 Cust **4 EDIT VECTOR NUMBER 42 STEPS**

>Call Use
System
System
UNIX Sy
Exit

Vector Name: RC-AA-Rotary Vector Number: 42
Description: Rock Coast AutoAttendant for Rotary

Step	Action	Description
1	SET	%num_tried = %num_tried = 0
2	GET_SPCH	get digits and load into %ci_value
3	GOTO	Step 7 if %num_dig_got = 1
4	SET	5 SET Action Step Number 1 for vector 42
5	GOTO	
6	GOTO	SET Action Step Performs Operation on Variable
7	SET	
8	ANNO	
9	DYN	Variable Operator Value
10	GOTO	%num_tried = 0
11	DATA	
12	QUIT	Comment: _____
13	EXEC	
14	QUIT	

Enter the variable name follow by the Return or ENTER key.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 5-42. SET Action Form

2. GET_SPCH

This action speaks a phrase that describes 5 menu choices and then uses the speech-recognition package to listen to callers' voices as they make a choice.

The action:

- Collects 1 digit with a value between 1 and 5 and places the digit in the variable *%ci_value*
- Places the number of digits collected (either 0 or 1) into the variable *%num_dig_got*

LUCENT TECHNOLOGIES Customer Assist Care Center - December 17, 1996

1 Custor 4 EDIT VECTOR NUMBER 42 STEPS
5 GET_SPCH ACTION, STEP 2 for vector 42

Get Speech Step gathers Spoken Digit(s) from caller

Comment: Speech Recognition Prompt

Consolidate responses into variable: %ci_value
Place number of digits collected into: %num_dig_got

Talkfile: 6104 US English

Phrase Tag	Number	Valid Input
SpRec Tech S 1, Cust Serv 2, Sales 3, Warr 4 Fax 5	118	1 digit:1-5

Confirmation: None Time limit per response: 6

Please enter your comments.

HELP CHOICES CLOSE ENTER CANCEL REFRESH ADD PHR

Figure 5-43. GET_SPCH Action Form

3. GOTO

Allows a caller who speaks a valid number to continue on in the vector.

If the value of *%num_dig_got* = 1, the GOTO action sends the call to step 7 for routing based on the caller's input.

4. SET

If the caller did not speak a valid number (that is, if *%num_dig_got* = 0), this action Increases the counter variable, *%num_tried*, by 1.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 17, 1996

4 EDIT VECTOR NUMBER 42 STEPS

Vector Name: RC-AA-Rotary Vector Number: 42
Description: Rock Coast AutoAttendant for Rotary

Step	Action	Description
1	SET	%num_tried = %num_tried = 0
2	GET_SPCH	get digits and load into %ci_value
3	GOTO	Step 7 if %num_dig_got = 1
4	SET	5 SET Action Step Number 4 for vector 42
5	GOTO	SET Action Step Performs Operation on Variable
6	GOTO	
7	SET	
8	ANNO	
9	DYN	
10	GOTO	Variable Operator Value %num_tried + 1
11	DATA	
12	QUIT	Comment: _____
13	EXEC	
14	QUIT	

Enter the variable name follow by the Return or ENTER key.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 5-44. SET Action Form

5. GOTO

Sends a caller who runs out of tries to the quit vector.

Callers are allowed 2 tries. The GOTO action checks whether the value of the counter variable, `%num_tried`, equals 2.

6. GOTO

Loops callers who have not run out of tries back to the GET_SPCH action in step 2.

7. SET

Converts the caller's choice into a 3-digit number that will be used when routing the caller to the desired department or the fax-on-demand system. The SET action adds 119 to the value in the variable `%ci_value`.

- For the first 4 menu choices, the number in `%ci_value` corresponds to the VDN of a department (Technical Support, Customer Service, Sales, or Warranty Information), which has a speech phrase with the same number. For example, the VDN for Technical Support is 120. The number of the "Technical Support" speech phrase is also 120.
- For the fifth menu choice, the GOTO action in step 10 uses the number in `%ci_value` (124) to send the call to step 13, which executes the fax-on-demand system. The speech phrase for "the fax-on-demand system" is 124.

The DYN_ANNOUN action in step 9 speaks a dynamic announcement using the speech phrase specified by the value in `%ci_value`.

**NOTE:**

For this routing mechanism to work, each department's VDN must equal the menu choice plus 119. The VDNs of the four departments are 120, 121, 122, and 123 and their menu choices are 1, 2, 3, and 4 respectively.

8. ANNOUNCE

Speaks a standard announcement: "Please hold while we connect you to..."

9. DYN_ANNOU

Speaks a dynamic announcement: a speech phrase identified by the value currently in the variable *%ci_value*. This phrase is the name of the destination to which the caller is being routed, either a department (Technical Support, Customer Service, Sales, or Warranty Information) or the fax-on-demand system.

The speech phrase has the same number as the department's VDN. For example, the VDN for Technical Support is 120. The number of the "Technical Support" speech phrase is also 120.

10. GOTO

Routes the caller to step 13, which executes the fax-on-demand application, if the variable *%ci_value* is 124. 124 is also the number of the speech phrase for "fax-on-demand system."

LUCENT TECHNOLOGIES Customer Assist Care Center - September 11, 1996			
4 EDIT VECTOR NUMBER 30 STEPS			
1 Cust	Vector Name: RC-AA-Rotary Vector Number: 30		
>Call Ue	Description: Rock Coast AutoAttendant for Rotary		
System	Step	Action	Description
System	1	SET	%num_tried = %num_tried = 0
UNIX Sy	2	GET_SPCH	get digits and load into %ci_value
Exit	3	GOTO	Step 7 if %num_dig_got = 1
	5	GOTO Action Step Number 10 for vector 30	
GOTO compares a variable with a value and routes to a vector or step.			
GOTO Step 13			
IF variable %ci_value = 124			
Comment: Route if caller chooses Fax			
10IASHT	14	QUIT	
Enter "Vector" or "Step" followed by the Return or ENTER key.			
HELP CHOICES CLOSE ENTER CANCEL REFRESH			

Figure 5-45. GOTO Action Form

11. DATA_RTN

Sends the VDN number, which is the current value of *%ci_value*, back to the switch so it knows where to route the caller.

The DATA_RTN action also sends a FAC (feature access code) to the switch. The FAC tells the switch what it should do with the passed data.

The screenshot shows a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - December 17, 1996". The main window is titled "EDIT VECTOR NUMBER 42 STEPS". On the left is a menu with options: "1 Custo", ">Call Ue", "System", "System", "UNIX Sy", "Exit", "3 Edi", "34!Queu", "35!Rout", "36!EWT", "37!Queu", "38!Rout", "39!RC-A", "40!RC-A", "41!exec", ">42!RC-A", and "43!Quit". The main area displays vector information: "Vector Name: RC-AA-Rotary", "Vector Number: 42", and "Description: Rock Coast AutoAttendant for Rotary". Below this is a table of steps and actions:

Step	Action
1	SET
2	GET_SPCH
3	GOTO
4	SET
5	GOTO
6	GOTO
7	SET
8	ANNOUNCE
9	DYN_ANNO
10	GOTO
11	DATA_RTN
12	QUIT
13	EXECUTE
14	QUIT

Below the table, it says "5 Data Return Action. Step Number 11 for vector 42". The "DATA_RTN Action returns information to switch." section includes:

- Feature Access Code: *01
- Data Return Segment 1: %ci_value
- Data Return Segment 2:
- Data Return Segment 3:
- Data Return Segment 4:
- Data Return Segment 5:
- Data Return Segment 6:
- Data Return Segment 7:
- Data Return Segment 8:

A comment at the bottom states: "Comment: Sends the UDN back to the switch". At the bottom of the window, it says "Enter the FAC followed by the Return or ENTER key." and there are buttons for "HELP", "CHOICES", "CLOSE", "ENTER", "CANCEL", and "REFRESH".

Figure 5-46. DATA_RTN Action Form

12. QUIT

Quits the CONVERSANT vector and returns the call to the DEFINITY vector.

13. EXECUTE

Executes the fax-on-demand system.

14. QUIT

Quits the CONVERSANT vector.

Fourth Vector — Quit Vector

This vector plays a final announcement and returns callers to the switch.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 17, 1996		
1 Cust	4 EDIT VECTOR NUMBER 43 STEPS	
>Call Ue	Vector Name: Quit	Vector Number: 43
System	Description: Quit	
System		
UNIX Sy		
Exit		
	Step	Action Description
	1	ANNOUNCE Thank you for calling Rock Coast Software. Goodbye
	2	QUIT
3 Edi	3	
34!Queu	4	
35!Rout	5	
36!EWT	6	
37!Queu	7	
38!Rout	8	
39!RC-A	9	
40!RC-A	10	
41!exec	11	
42!RC-A	12	
>43!Quit	13	
	14	
Enter the vector name.		
HELP	INSERT	REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS

Figure 5-47. Finished QUIT Vector

Step Descriptions

1. ANNOUNCE

Plays a standard announcement: "Thank you for calling Rock Coast Software. Goodbye."

2. QUIT

Quits the CONVERSANT vector and sends the caller back to the DEFINITY vector.

Sample Application #5: Bulletin Boards

Business Situation

Bulletin boards share similar programming structures with auto attendants but differ by offering information “trees” rather than routing callers to specific locations.

In the following example, Rock Coast Software has created an automated information line to help callers answer their questions about company products, upgrade issues, addresses and phone numbers, and employment opportunities. Rock Coast Software would like to program an application that allows callers to answer their questions anytime they wish, 24 hours a day, 7 days a week. Rock Coast Software will be able to accomplish this goal with Care Center using bulletin boards. Bulletin boards are created in Care Center using a unique combination of MENU actions, SWITCH actions, announcements, and dynamic announcements.

Like the auto attendant in sample application #4, this bulletin board application allows touch tones and speech recognition.

NOTE:

Automatic Speech Recognition (ASR) for WholeWord is required on the CONVERSANT to use speech recognition. Likewise, the optional Speech Recognition package that works with Customer Assist Care Center Version 6.0 is also required to use speech recognition.

The lessons learned in earlier sample applications are background for this sample application.

Callflow Diagrams

The following 12 diagrams show the callflow for this sample application.

5. Bulletin Board

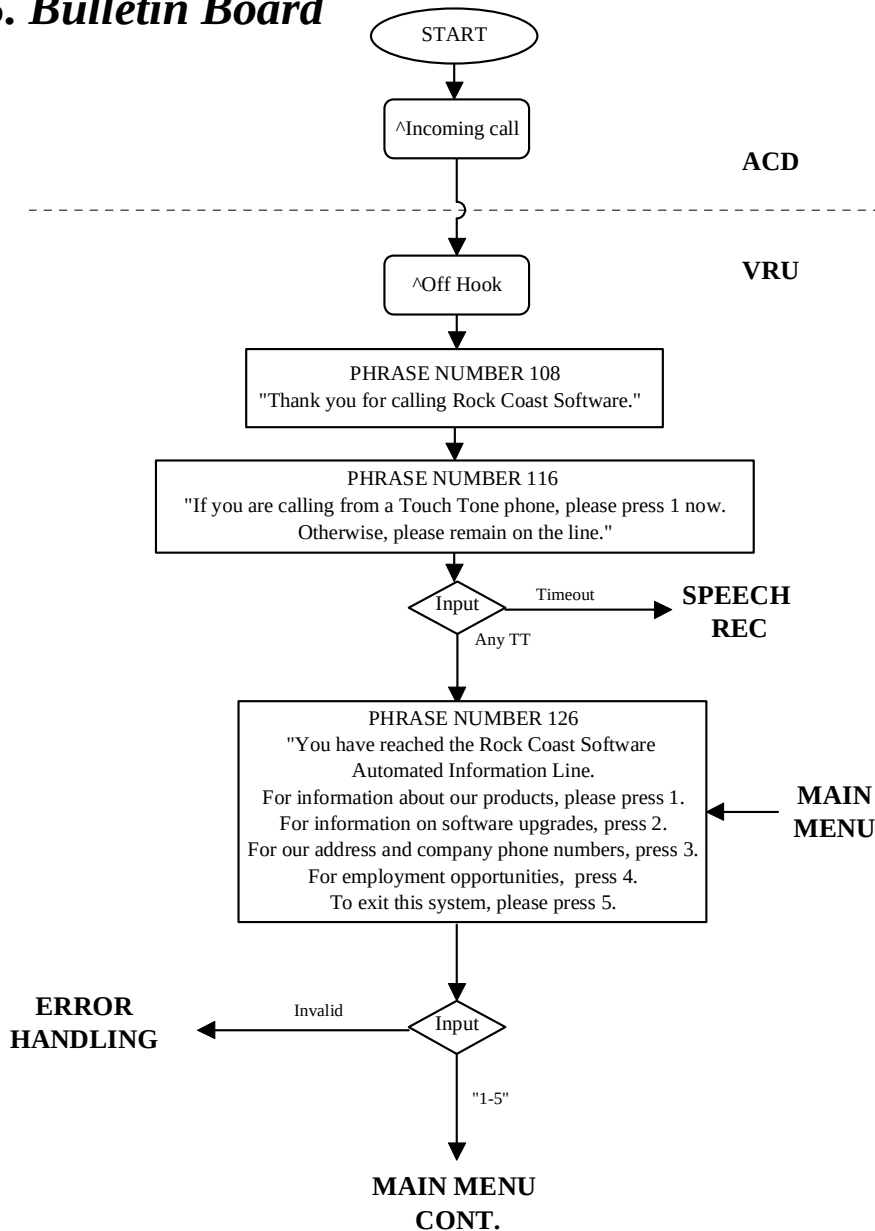


Figure 5-48. Bulletin Board Callflow 1

5. Bulletin Board

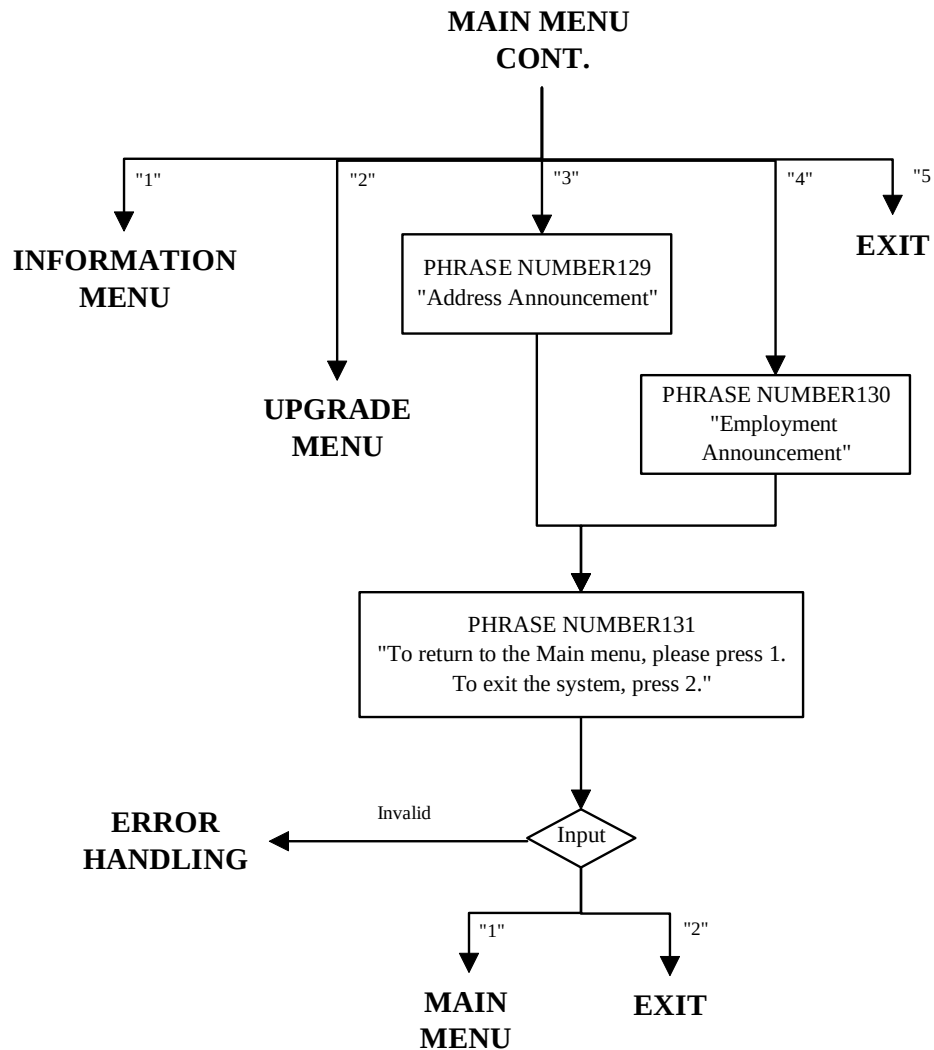


Figure 5-49. Bulletin Board Callflow 2

5. Bulletin Board

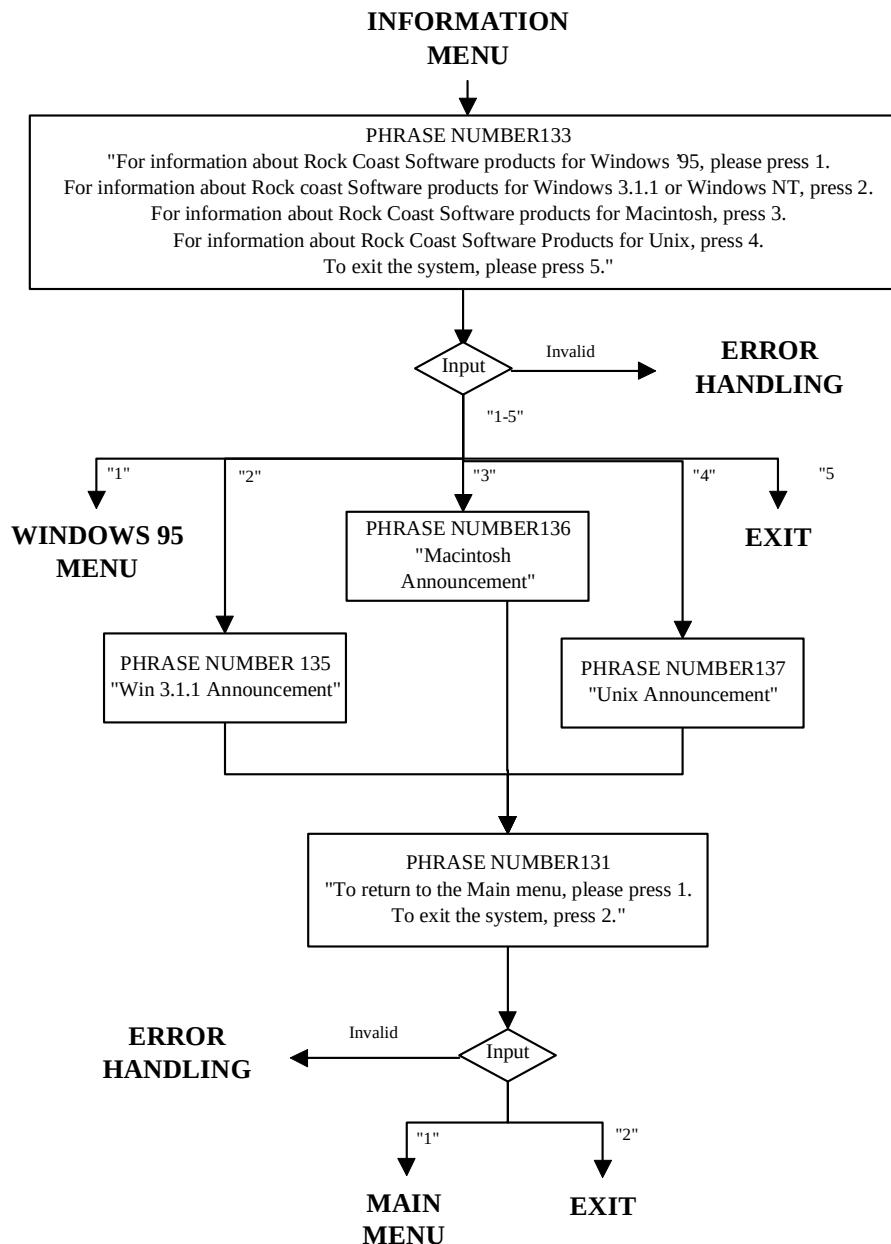


Figure 5-50. Bulletin Board Callflow 3

5. Bulletin Board

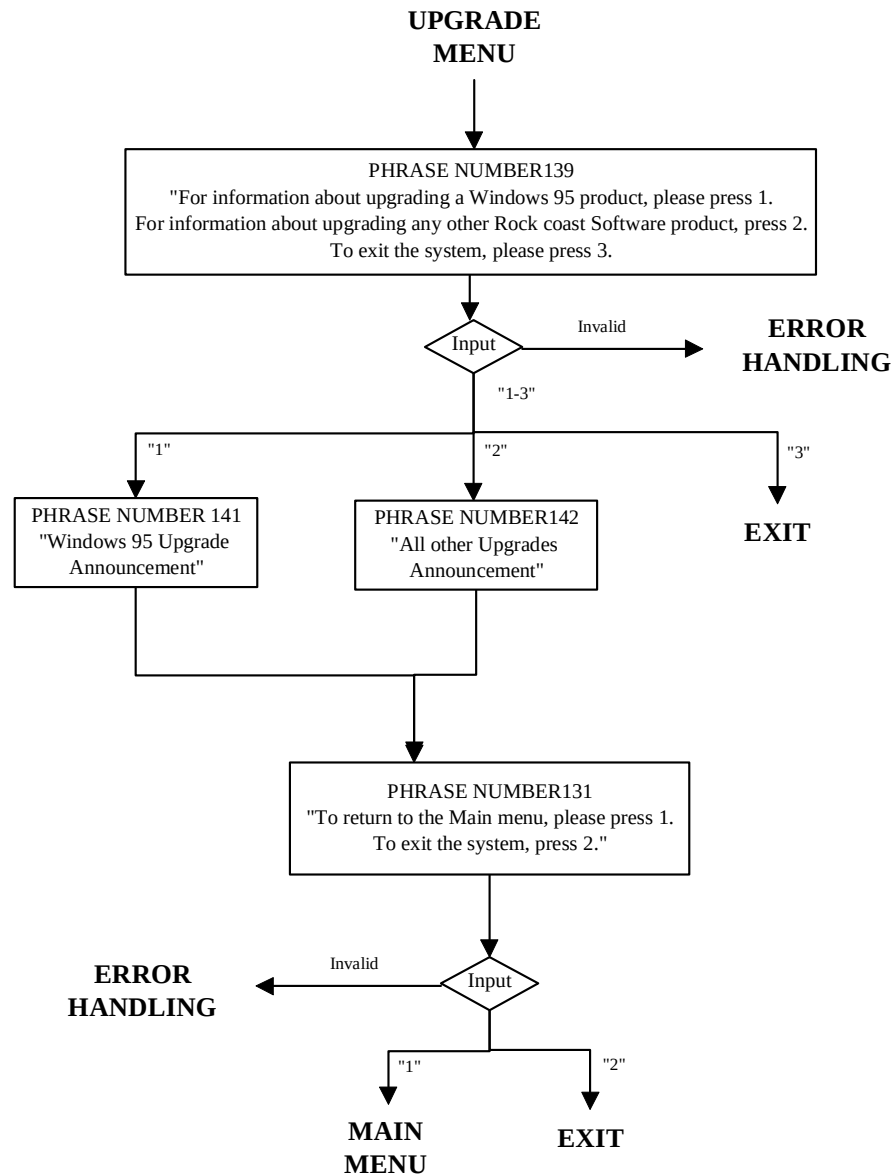


Figure 5-51. Bulletin Board Callflow 4

5. Bulletin Board

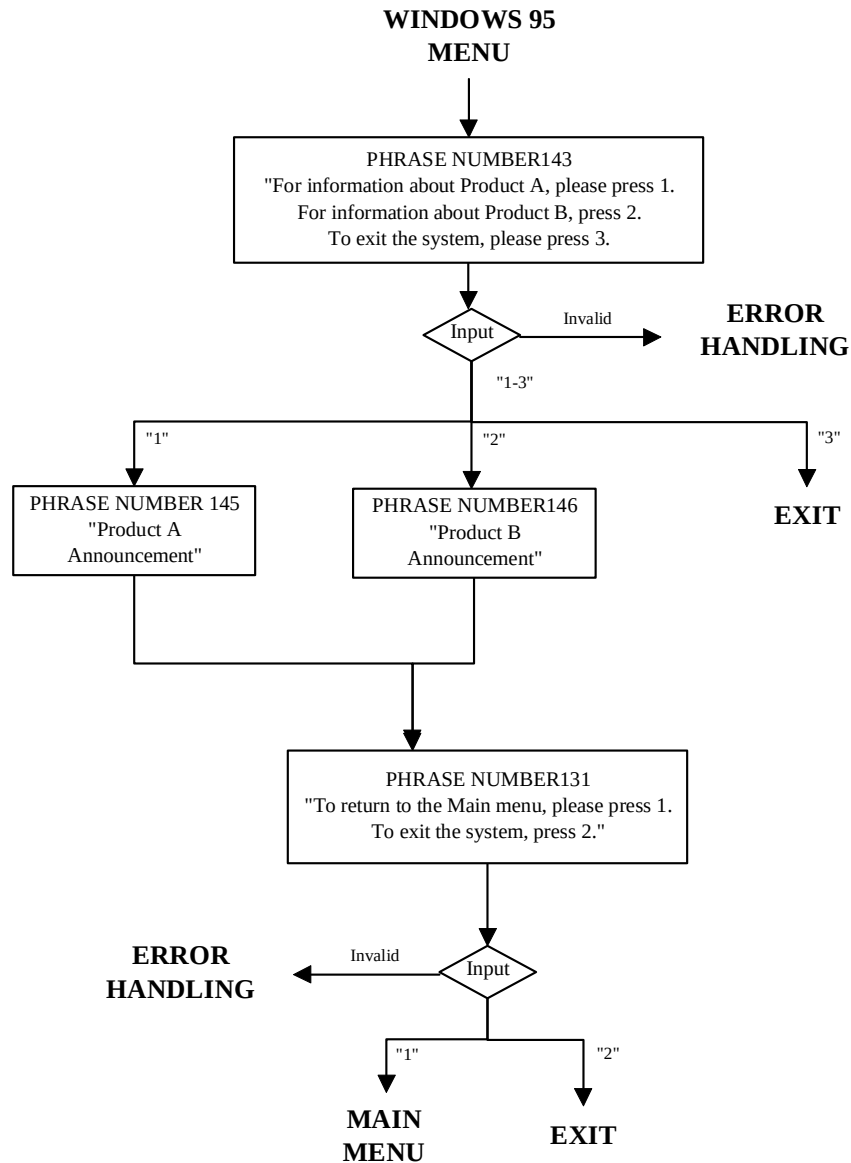


Figure 5-52. Bulletin Board Callflow 5

5. Bulletin Board

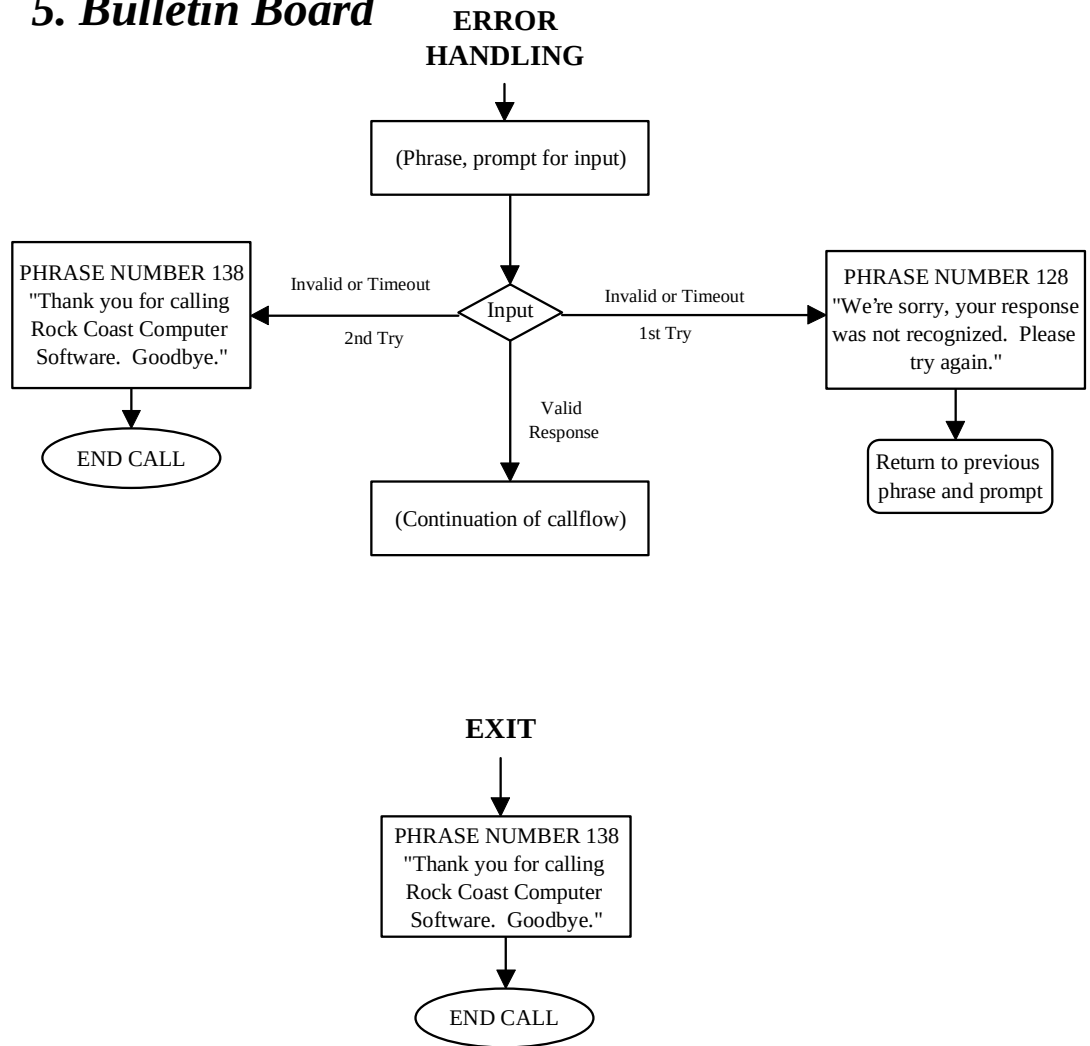


Figure 5-53. Bulletin Board Callflow 6

5. *Bulletin Board*

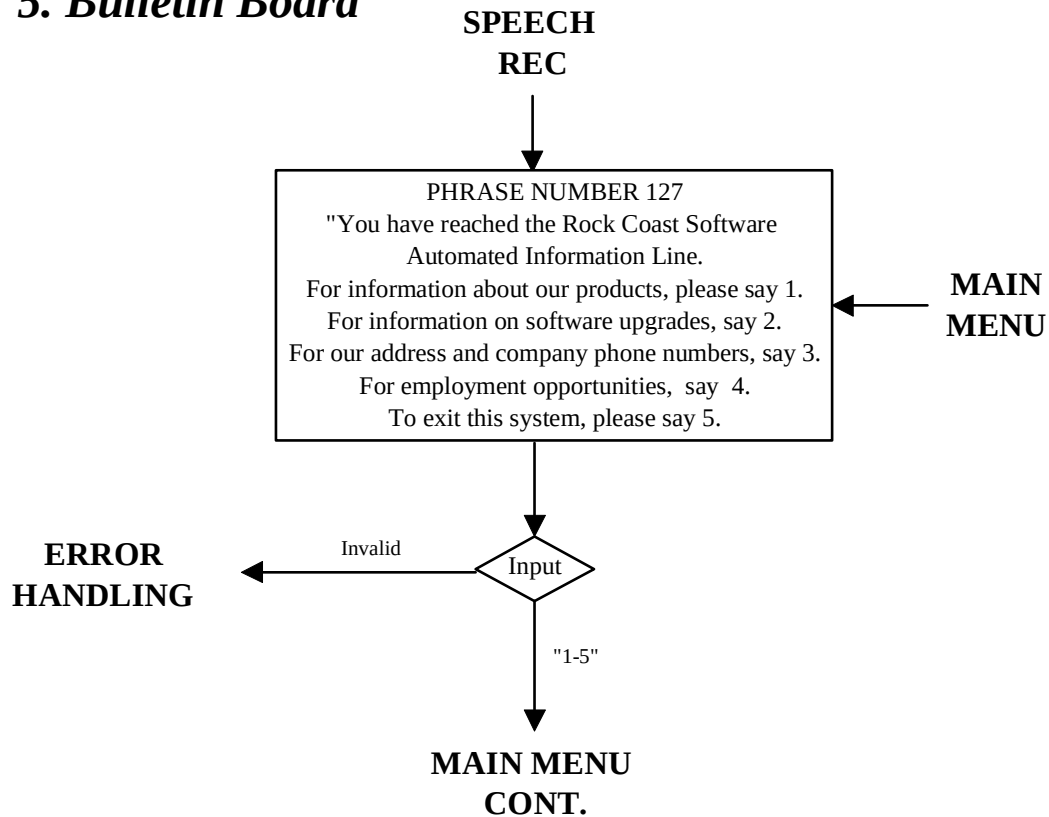


Figure 5-54. Bulletin Board Callflow 7

5. Bulletin Board

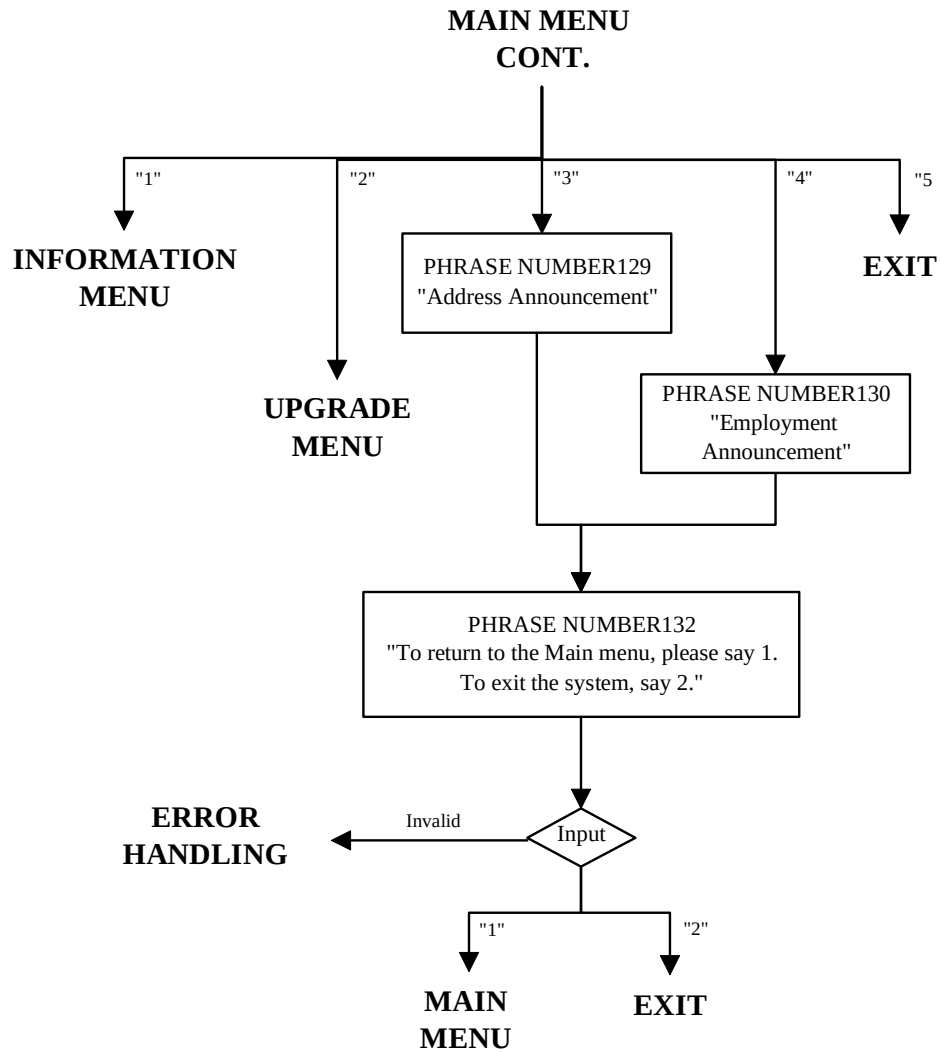


Figure 5-55. Bulletin Board Callflow 8

5. Bulletin Board

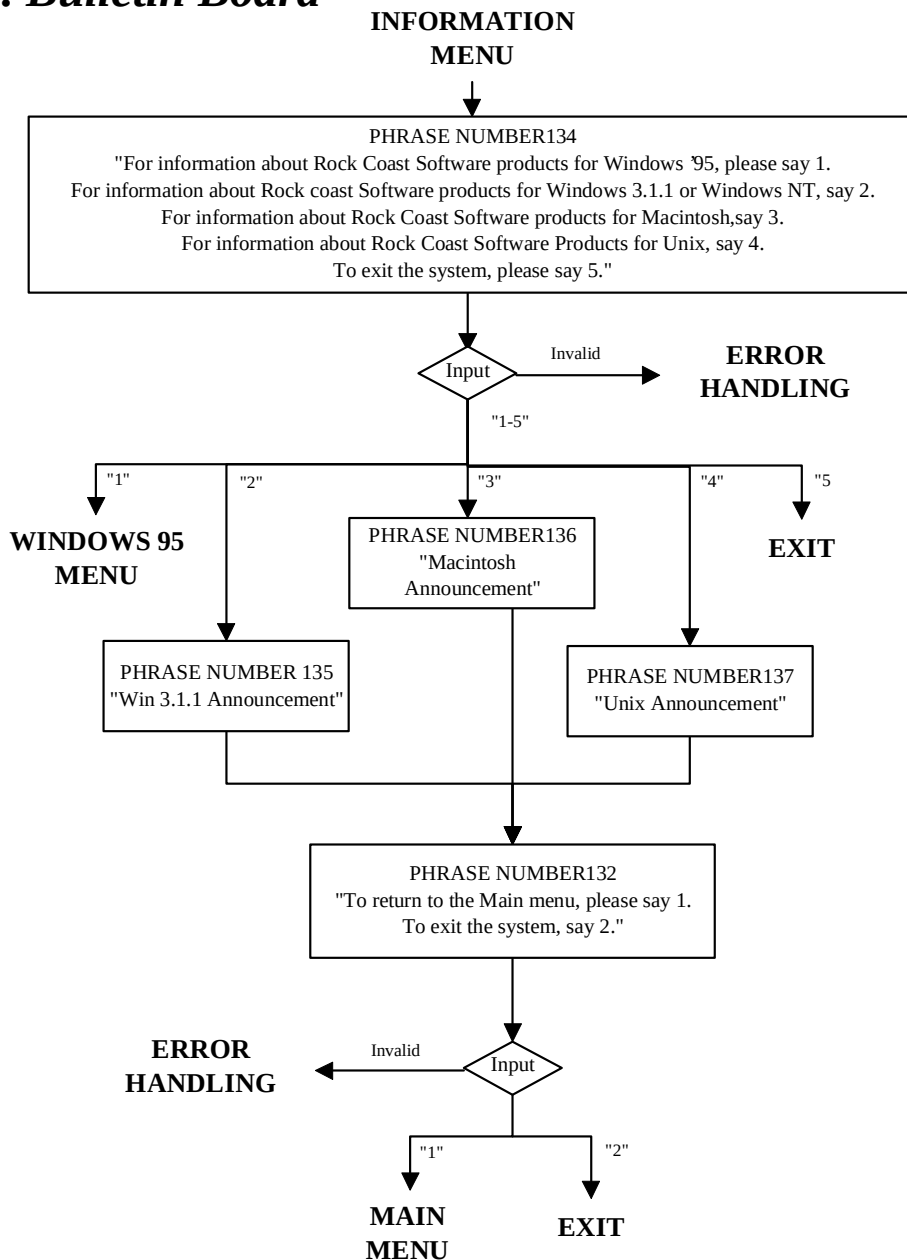


Figure 5-56. Bulletin Board Callflow 9

5. Bulletin Board

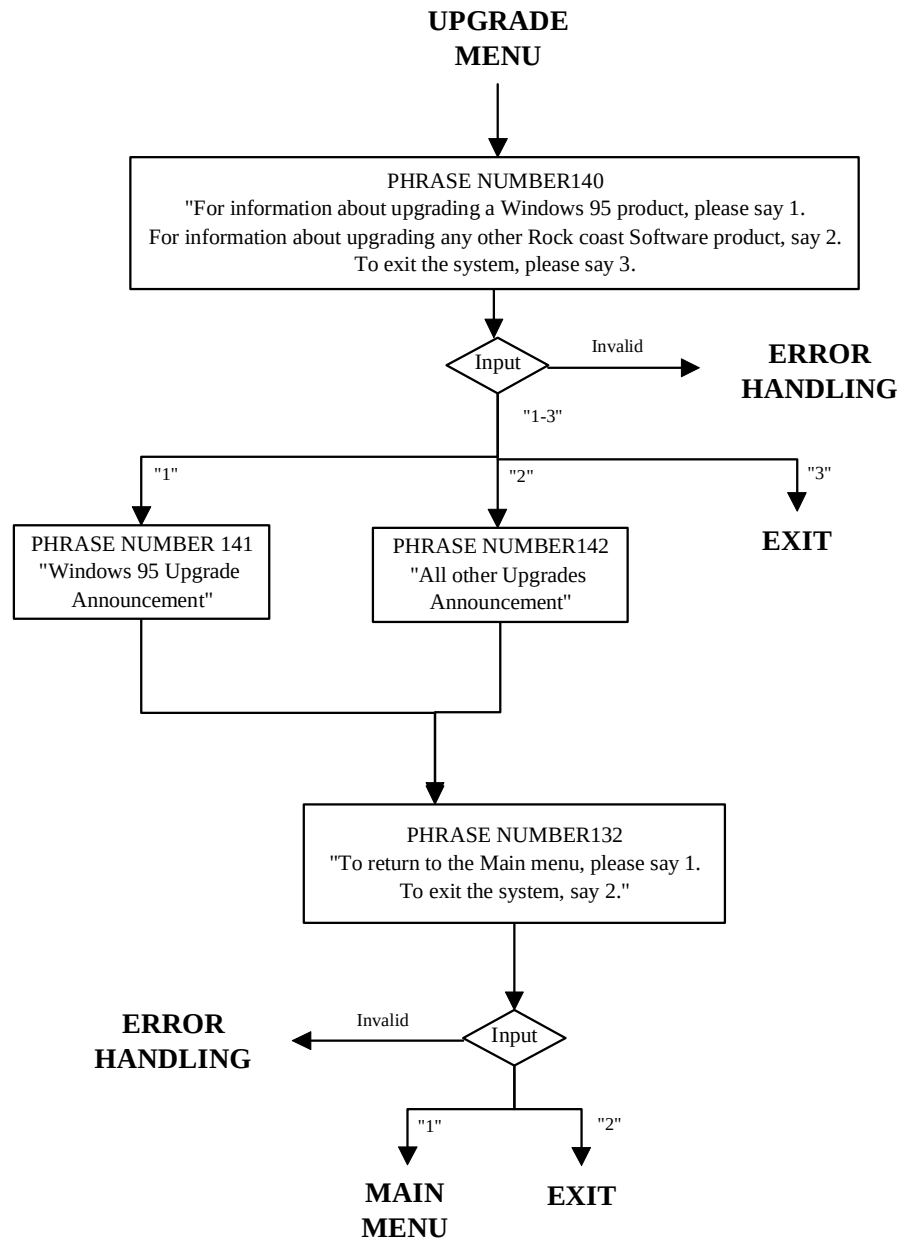


Figure 5-57. Bulletin Board Callflow 10

5. Bulletin Board

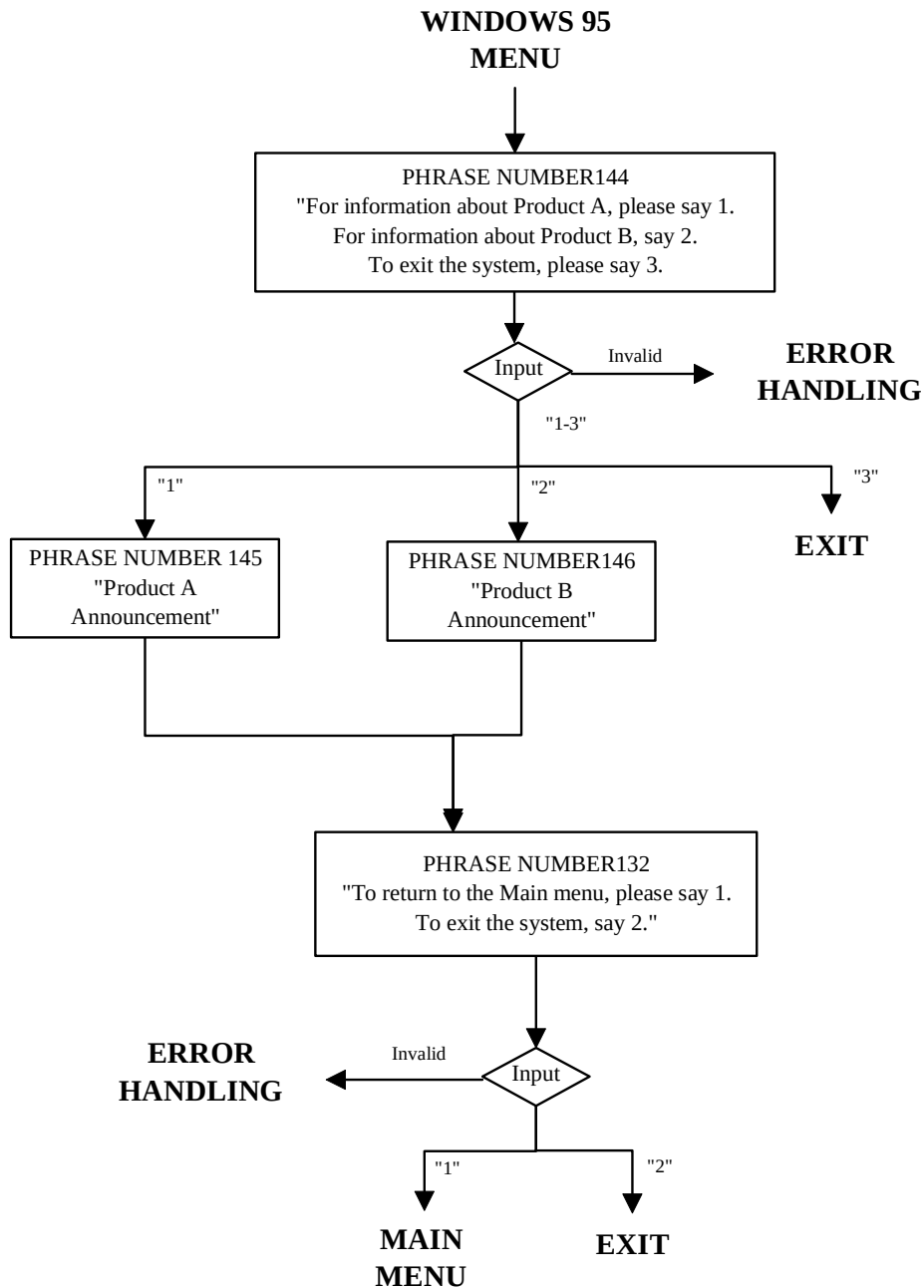
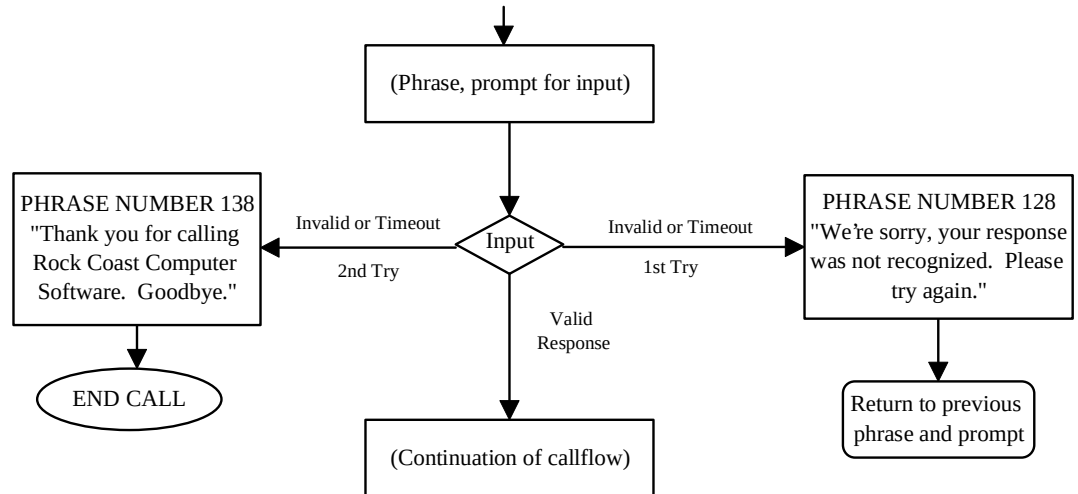


Figure 5-58. Bulletin Board Callflow 11

5. Bulletin Board

ERROR HANDLING



EXIT

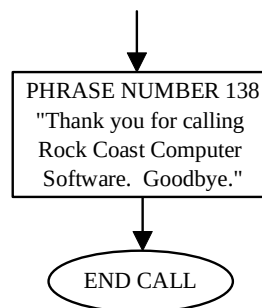


Figure 5-59. Bulletin Board Callflow 12

ECS R5/DEFINITY Vector

This sample application uses one DEFINITY vector.

1. wait-time 2 secs hearing ringback
2. queue-to main split 1 pri m



NOTE:

An attribute of Customer Assist Care Center is that a queued caller on the DEFINITY switch who accesses a Care Center/CONVERSANT application (for example, a bulletin board) will be “yanked” out of that application as soon as the DEFINITY determines that an agent has become available. If callers should not be “yanked” out of their applications, do not queue these callers on the DEFINITY.

3. wait-time 0 secs hearing music
4. converse-on split 2 pri m passing none and none
5. wait-time 2 secs hearing music

CONVERSANT Speech Administration

In this sample application, you will need to record speech for phrase numbers 108, 116, and 126-146. See the callflow for the text of these phrases.

For information on how to create new vector phrases or how to record vector phrases, refer to “Sample Application #2: Standard Announcement” on page 5-25.

CONVERSANT Vectors

The bulletin board for Rock Coast Software has 12 vectors that implement the callflows for this sample application.

The Edit Vector screen (see Figure 5-60 on page 5-82) shows some of the vectors used in this sample application:

- 38:RC-BB-Main Vec (see “First Vector — RC-BB-Main Vec” on page 5-82)
- 39:RC-BB-TT Menu (see “Second Vector — RC-BB-TT Menu” on page 5-84)
- 40:RC-BB-SCR Menu (see “Third Vector — RC-BB-SR Main” on page 5-87)
- 41:RC-BB-InfoMenu (see “Fourth Vector — RC-BB-InfoMenu” on page 5-90)
- 42:RC-BB-UpgradTT (see “Fifth Vector — RC-BB-UpgradTT” on page 5-93)
- 43:RC-BB-Return? (see “Sixth Vector — RC-BB-Return?” on page 5-96)
- 44:RC-BB-SR Info (see “Seventh Vector — RC-BB-SR Info” on page 5-98)
- 45:RC-BB-SR Upgra (see “Eighth Vector — RC-BB-SR Upgra” on page 5-101)
- 46:RC-BB-SR Retur (see “Ninth Vector — RC-BB-SR Retur” on page 5-104)
- 47:RC-BB-Win95Men (see “Tenth Vector — RC-BB-Win95Men” on page 5-107)
- 48:RC-BB-SR Win95 (not shown on the Edit Vector screen, see “Eleventh Vector — RC-BB-SR Win95” on page 5-110)
- 32:Quit (not shown on the Edit Vector screen, see “Twelfth Vector — Quit” on page 5-113)

For each vector, the sample application first shows the steps in the finished vector and then describes each of the steps.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 12, 1996
1 Customer Assist Care Center
>Call Vector Configuration
  System Administration
  System Monitor
  UNIX System
  Exit
2 Vector Configuration
  Create New Vector
  >Edit Vector
  Delete Vector
  Copy Vector
  Select Vector Template
  Audit Vector Database
  Place New Vectors in Service
3 Edit Vector
>38|RC-BB-Main Vec
39|RC-BB-TT Menu
40|RC-BB-SR Main
41|RC-BB-InfoMenu
42|RC-BB-UpgradTT
43|RC-BB-Return?
44|RC-BB-SR Info
45|RC-BB-SR Upgra
46|RC-BB-SR Retur
47|RC-BB-Win95Men

Select the item and press ENTER.
[HELP] [ENTER] [PREV-FRM] [NEXT-FRM] [CANCEL] [CMD-MENU]
  
```

Figure 5-60. Edit Vector Screen

First Vector — RC-BB-Main Vec

This vector greets incoming callers, allows them to choose whether they are using a touch-tone phone, and then routes the calls to either a touch-tone or speech-recognition vector (second or third vector, respectively).

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 12, 1996
1 Cust 4 EDIT VECTOR NUMBER 38 STEPS
>Call Ve Vector Name: RC-BB-Main Vec Vector Number: 38
System Description: Rock Coast Bulletin Board - Main Vector
System
UNIX Sy
Exit

Step Action Description
1 ANNOUNCE Rock Coast - Main Greeting
2 ANNOUNCE Using Touch Tone?
3 GET_DIGT get 1 digits and load into %ci_value
4 GOTO Vector 39 if %num_dig_got = 1
5 GOTO Vector 40 unconditionally
6 QUIT
7
8
9
10
11
12
13
14

Enter the vector name.
[HELP] [INSERT] [REMOVE] [DEFINE] [ENTER] [CANCEL] [REFRESH] [CHG-KEYS]
  
```

Figure 5-61. Finished RC-BB-Main Vec Vector

Step Descriptions

1. ANNOUNCE

Speaks the opening announcement: "Thank you for calling Rock Coast Software."

2. ANNOUNCE

Speaks an announcement that asks the caller to identify whether they are using a touch-tone phone. Callers may be calling from a rotary phone, or they may wish to use speech recognition to navigate the bulletin board.

3. GET_DIGT

Accepts any digits entered by the caller and puts the value into a variable called *%ci_value*. This step also counts the total number of digits heard from the caller and puts that value into a variable called *%num_dig_got*. If *%num_dig_got* is equal to or greater than 1, then the caller has a touch-tone phone.

4. GOTO

Sends callers that identified themselves as having a touch-tone phone to the touch-tone vector. See "Second Vector — RC-BB-TT Menu" on page 5-84.

Since any touch-tone entry will signify that the customer is using a touch-tone phone, this step looks at the value of *%num_dig_got*.

5. GOTO

If Customer Assist Care Center doesn't "hear" touch tones (that is, if *%num_dig_got* = 0), it assumes the caller has a rotary phone or is requesting the use of speech recognition. This step then routes the caller to the Speech Recognition vector unconditionally. See "Third Vector — RC-BB-SR Main" on page 5-87.

6. QUIT

Quits the vector and returns control of the call to the DEFINITY vector.

Second Vector — RC-BB-TT Menu

This vector provides a bulletin board menu for callers using touch-tone phones, plays two dynamic announcements, and routes callers to other vectors based on their choices.

The screenshot displays a terminal window for the LUCENT TECHNOLOGIES Customer Assist Care Center, dated September 27, 1996. The main menu on the left lists options: 1 Custo, >Call Ue, System, System, UNIX Sy, and Exit. The '1 Custo' option is selected, leading to a screen titled 'EDIT VECTOR NUMBER 39 STEPS'. This screen shows the configuration for Vector Name: RC-BB-TT Menu and Vector Number: 39, with a Description: Rock Coast Bulletin Board TT Menu. A table lists 14 steps with their actions and descriptions. Steps 1 through 4 are populated: Step 1 is MENU (RC-BB-Main Menu), Step 2 is DYN_ANNOU (phrase in %data1), Step 3 is GOTO (Vector 43 unconditionally), and Step 4 is QUIT. Steps 5 through 14 are empty. At the bottom, there is a prompt 'Enter the vector name.' and a row of buttons: HELP, INSERT, REMOVE, DEFINE, ENTER, CANCEL, REFRESH, and CHG-KEYS.

Step	Action	Description
1	MENU	RC-BB-Main Menu
2	DYN_ANNOU	phrase in %data1
3	GOTO	Vector 43 unconditionally
4	QUIT	
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		

Figure 5-62. Finished RC-BB-TT Menu Vector

Step Descriptions

1. MENU

Speaks a phrase (number 126, as shown in the callflow) that describes 5 menu choices. Callers select 1 of the choices with their touch-tone phones.

Care Center collects the input from the caller and places the collected digits into the variable *%ci_value*.

On the MENU action form (Figure 5-63), the Min and Max values of 1 indicate that Care Center is looking for a minimum and maximum of 1 collected digit from the caller.

Care Center places the output value into the variable *%data1*.

After the variable *%data1* is populated, a pointer *goto* vector statement moves the caller to the next step or to another vector in the callflow.

Specifically:

- Choices 1, 2, and 5 route callers to vectors 41, 42, and 32, respectively. See “Fourth Vector — RC-BB-InfoMenu” on page 5-90, “Fifth Vector — RC-BB-UpgradTT” on page 5-93, and “Twelfth Vector — Quit” on page 5-113.
- Choices 3 and 4 select dynamic announcements. The MENU action places a 3-digit output value (129 or 130, respectively) in the variable *%data1*. The DYN_ANNOU action in step 2 then speaks a dynamic announcement using the speech phrase specified by the value in *%data1*.

There are two screens for the MENU action. You access the second screen by pressing NEXTPAGE **[F5]**. You can return to the first page by pressing PREVPAGE **[F4]**.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 12, 1996

5 MENU Action Step Number 1 for vector 39

NORMAL INPUT :

Prompt : RC-BB-Main Menu 126

Number of digits to collect : Min 1 Max 1

Time to wait for input (sec): 1st digit 6 Next digit(s) 4

Place in Variables :

Input %ci_value	Output %data1	GOTO Vector	Vector Name
Valid Input	Output Value		
1		41	RC-BB-InfoMenu
2		42	RC-BB-UpgradTT
3	129	CONT	
4	130	CONT	
5		32	Quit

Enter the phrase tag for the menu prompt.

HELP CHOICES CLOSE PREVPAGE NEXTPAGE CANCEL REFRESH ADD-PHR

Figure 5-63. MENU Action Form: Normal Input

The second page of this form includes contingencies for callers who make mistakes while entering information. This page allows you to speak a phrase announcement that informs these callers of any errors during data entry. For example, Rock Coast Software uses phrase number 128, as shown in the callflows: “We’re sorry, your response was not recognized. Please try again.” The following fields contain the number of tries that a caller has to enter correct information, the output value that will be populated in *%data1*, and the pointer goto vector that sends the caller to the next step in the callflow.

LUENT TECHNOLOGIES Customer Assist Care Center - September 27, 1996

5 MENU Action Step Number 1 for vector 39

SPECIAL CASES :

Caller's input not on list :

Speak Phrase : There was an error. Please enter your choice again 128

Max. number of tries : 2

Output Value : 999 GOTO Vector : 32 Quit

Caller did not enter the 1st digit within the time allowed :

Speak Phrase : There was an error. Please enter your choice again 128

Max. number of tries : 2

Output Value : 999 GOTO Vector : 32 Quit

Caller did not enter the minimum number of digits required :

Speak Phrase : There was an error. Please enter your choice again 128

Max. number of tries : 2

Output Value : 999 GOTO Vector : 32 Quit

Caller has no more tries to enter valid input :

Speak Phrase : _____

Enter the phrase tag for input not on list above.

HELP CHOICES CLOSE PREUPAGE NEXTPAGE CANCEL REFRESH ADD-PHR

Figure 5-64. MENU Action Form: Special Cases

2. DYN_ANNOUN

If callers select choice 3 or 4, the DYN_ANNOUN action speaks a dynamic announcement: a speech phrase identified by the value currently in the variable %data1. This phrase is either the "Address Announcement" (phrase number 129) or the "Employee Announcement" (phrase number 130).

3. GOTO

Routes the caller to vector 43. See "Sixth Vector — RC-BB-Return?" on page 5-96.

4. QUIT

Quits the vector and returns control of the call to the DEFINITY vector.

Third Vector — RC-BB-SR Main

This vector provides a bulletin board menu for callers using speech recognition, plays two dynamic announcements, and routes callers to other vectors based on their choices.

The screenshot shows a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - September 12, 1996". The main menu on the left includes options like "1 Custo", ">Call Use", "System", "System", "UNIX Sy", and "Exit". The "EDIT VECTOR NUMBER 40 STEPS" screen is active, displaying the following details:

- Vector Name: RC-BB-SR Main
- Vector Number: 40
- Description: Rock Coast Bulletin Board SpeechRec Main

Step	Action	Description
1	SET	%num_tried = %num_tried = 0
2	GET_SPCH	get digits and load into %ci_value
3	GOTO	Step 8 if %num_dig_got = 1
4	SET	%num_tried = %num_tried + 1
5	GOTO	Vector 32 if %num_tried = 2
6	ANNOUNCE	There was an error. Please enter your choice again
7	GOTO	Step 2 unconditionally
8	SET	%ci_value = %ci_value + 126
9	SWITCH	Routes callers to appropriate place
10	DYN_ANNOU	phrase in %ci_value
11	GOTO	Vector 46 unconditionally
12	QUIT	
13		
14		

At the bottom, it says "Enter the vector name." and provides a row of function keys: HELP, INSERT, REMOVE, DEFINE, ENTER, CANCEL, REFRESH, and CHG-KEYS.

Figure 5-65. Finished RC-BB-SR Main Vector

Step Descriptions

1. SET

Sets a counter variable, *%num_tried*, to 0. The vector uses this variable to count the number of times that a caller tries to speak the number of a valid menu choice at the GET_SPCH action. A caller is allowed 2 tries. After 2 unsuccessful tries, the GOTO action in step 5 routes the caller to the *quit* vector.



NOTE:

For information about how to create SET action steps, refer to "Sample Application #4: Automated Attendants" on page 5-49

2. GET_SPCH

This action speaks a phrase (number 127, as shown in the callflow) that describes 5 menu choices and then uses the speech-recognition package to listen to callers' voices as they make a choice.

The action:

- Accepts as valid input 1 digit with a value between 1 and 5 and places the digit in the variable *%ci_value*
- Places the number of digits collected (either 0 or 1) into the variable *%num_dig_got*

There will be no confirmation of the choices that the caller made using speech recognition.

3. GOTO

Allows a caller who speaks a valid number to continue on in the vector.

If the value of *%num_dig_got* = 1, the GOTO action sends the call to step 8 for routing based on the caller's input.

4. SET

If the caller did not speak a valid number (that is, if *%num_dig_got* = 0), this action increases the counter variable, *%num_tried*, by 1.

5. GOTO

Sends a caller who runs out of tries to the *quit* vector.

Callers are allowed 2 tries. The GOTO action checks whether the value of the counter variable, *%num_tried*, equals 2.

6. ANNOUNCE

If the caller did not speak a valid number, this step plays a standard announcement: "We're sorry, your response was not recognized. Please try again."

7. GOTO

Loops callers who have not run out of tries back to the GET_SPCH action in step 2.

8. SET

Converts the caller's choice into a 3-digit number that will be used when routing the caller or playing a dynamic announcement. The SET action adds 126 to the value in the variable *%ci_value*.

9. SWITCH

Evaluates the value of the variable *%ci_value* and routes the caller to a vector associated with the value.

- For the value 127 (GET_SPCH choice 1), the action routes the caller to vector 44. See "Seventh Vector — RC-BB-SR Info" on page 5-98.
- For the value 128 (GET_SPCH choice 2), the action routes the caller to vector 45. See "Eighth Vector — RC-BB-SR Upgra" on page 5-101.
- For the value 131 (GET_SPCH choice 5), the action routes the caller to vector 32. See "Twelfth Vector — Quit" on page 5-113.

For the values 129 and 130 (GET_SPCH choices 3 and 4), the SWITCH action does not contain routing information. Processing continues in the current vector.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 12, 1996
1 Cust 4 EDIT VECTOR NUMBER 40 STEPS
>Call Ue 5 SWITCH Action Step Number 9 for vector 40
System De
System SWITCH evaluates variables and routes matches to vectors
UNIX Sy St Comment: Routes callers to appropriate place
Exit Variable: %ci_value Operator: =

3 Edi
38|RC-B      VALUE      VECTOR NUM      VECTOR NAME
39|RC-B      127            44             RC-BB-SR Info
>40|RC-B      128            45             RC-BB-SR Upgra
41|RC-B      131            32             Quit
42|RC-B
43|RC-B
44|RC-B
45|RC-B
46|RC-B
47|RC-B

Please enter your comments.
HELP CHOICES CLOSE ENTER CANCEL REFRESH

```

Figure 5-66. SWITCH Action Form

10. DYN_ANNOUN

Speaks a dynamic announcement: a speech phrase identified by the value currently in the variable `%ci_value`. This phrase is either the "Address Announcement" (phrase number 129) or the "Employee Announcement" (phrase number 130). These are GET_SPCH choices 3 and 4, respectively.

11. GOTO

Routes the caller to vector 46. See "Ninth Vector — RC-BB-SR Retur" on page 5-104.

12. QUIT

Quits the CONVERSANT vector and returns the call to the DEFINITY vector.

Fourth Vector — RC-BB-InfoMenu

This vector provides the Information Menu for callers using touch-tone phones. See Figure 5-50 on page 5-70.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 27, 1996

1 Cust **4 EDIT VECTOR NUMBER 41 STEPS**

>Call Use
System
System
UNIX Sy
Exit

Vector Name: RC-BB-InfoMenu Vector Number: 41
Description: Rock Coast Bulletin Board Info Main Menu

Step	Action	Description
1	MENU	Information Main Menu - TT
2	DYN_ANNOUN	phrase in %data1
3	GOTO	Vector 43 unconditionally
4	QUIT	
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		

35|RC-B
36|RC-B
37|EWT
38|RC-B
39|RC-B
40|RC-B
>41|RC-B
42|RC-B
43|RC-B
44|RC-B

Enter the vector name.

HELP INSERT REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS

Figure 5-67. Finished RC-BB-InfoMenu Vector

Step Descriptions

1. MENU

Speaks a phrase (number 133 in the callflow) that describes 5 menu choices. Callers select 1 of the choices with their touch-tone phones.

Care Center collects the input from the caller and places the collected digits into the variable *%ci_value*.

The Min and Max values of 1 indicate that Care Center is looking for a minimum and maximum of 1 collected digit from the caller.

Care Center places the output value into the variable *%data1*.

After the variable *%data1* is populated, a pointer *goto* vector statement moves the caller to the next step or to another vector in the callflow.

Specifically:

- Choices 1, and 5 route callers to vectors 47 and 32, respectively. See "Tenth Vector — RC-BB-Win95Men" on page 5-107 and "Twelfth Vector — Quit" on page 5-113.
- Choices 2, 3, and 4 select dynamic announcements. The MENU action places a 3-digit output value (135, 136, or 137, respectively) in the variable *%data1*. The DYN_ANNOUN action in step 2 then speaks a dynamic announcement using the speech phrase specified by the value in *%data1*.

There are two screens for the MENU action. You access the second screen by pressing NEXTPAGE [F5]. You can return to the first page by pressing PREVPAGE [F4].

LUCENT TECHNOLOGIES Customer Assist Care Center - September 12, 1996
5 MENU Action Step Number 1 for vector 41

NORMAL INPUT :

Prompt : Information Main Menu - TT 133

Number of digits to collect : Min 1 Max 1

Time to wait for input (sec): 1st digit 6 Next digit(s) 4

Place in Variables :

Input %ci_value	Output %data1	GOTO Vector	Vector Name
Valid Input	Output Value		
1		47	RC-BB-Win95Men
2	135	CONT	
3	136	CONT	
4	137	CONT	
5		32	Quit

Enter the phrase taq for the menu prompt.

HELP CHOICES CLOSE PREVPAGE
NEXTPAGE CANCEL REFRESH ADD-PHR

Figure 5-68. MENU Action Form: Normal Input


```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 27, 1996
5 MENU Action Step Number 1 for vector 41

SPECIAL CASES :
  Caller's input not on list :
    Speak Phrase : There was an error. Please enter your choice again 128
    Max. number of tries : 2
    Output Value : 999 GOTO Vector : 32 Quit

  Caller did not enter the 1st digit within the time allowed :
    Speak Phrase : There was an error. Please enter your choice again 128
    Max. number of tries : 2
    Output Value : 999 GOTO Vector : 32 Quit

  Caller did not enter the minimum number of digits required :
    Speak Phrase : There was an error. Please enter your choice again 128
    Max. number of tries : 2
    Output Value : 999 GOTO Vector : 32 Quit

  Caller has no more tries to enter valid input :
    Speak Phrase :

Enter the phrase tag for no more tries above.
HELP CHOICES CLOSE PREUPAGE NEXTPAGE CANCEL REFRESH ADD-PHR
  
```

Figure 5-69. MENU Action Form: Special Cases

2. DYN_ANNOUN

If callers select choice 2, 3, or 4, the DYN_ANNOUN action speaks a dynamic announcement: a speech phrase identified by the value currently in the variable *%data1*. This phrase is the "Win 3.1.1 Announcement" (phrase number 135), the "Macintosh Announcement" (phrase number 136), or the "Unix Announcement" (phrase number 137).

3. GOTO

Routes the caller to vector 43. See "Sixth Vector — RC-BB-Return?" on page 5-96.

4. QUIT

Quits the vector and returns control of the call to the DEFINITY vector.

Fifth Vector — RC-BB-UpgradTT

This vector provides the Upgrade Menu for callers using touch-tone phones. See Figure 5-51 on page 5-71.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 27, 1996		
4 EDIT VECTOR NUMBER 42 STEPS		
1 Custo	Vector Name: RC-BB-UpgradTT Vector Number: 42	
>Call Use	Description: Rock Coast Bulletin Board Upgrade MenuTT	
System	Step	Action Description
System	1	MENU Upgrades Main Menu - TT
UNIX Sy	2	DYN_ANNOU phrase in %data1
Exit	3	GOTO Vector 43 unconditionally
	4	QUIT
	5	
3 Edi	6	
35 RC-B	7	
36 RC-B	8	
37 EWT	9	
38 RC-B	10	
39 RC-B	11	
40 RC-B	12	
41 RC-B	13	
>42 RC-B	14	
43 RC-B		
44 RC-B		

Enter the vector name.

HELP	INSERT	REMOVE	DEFINE	ENTER	CANCEL	REFRESH	CHG-KEYS

Figure 5-70. Finished RC-BB-UpgradTT Vector

Step Descriptions**1. MENU**

Speaks a phrase (number 139 in the callflow) that describes 3 menu choices. Callers select 1 of the choices with their touch-tone phones.

Care Center collects the input from the caller and places the collected digits into the variable *%ci_value*.

The Min and Max values of 1 indicate that Care Center is looking for a minimum and maximum of 1 collected digit from the caller.

Care Center places the output value into the variable *%data1*.

After the variable *%data1* is populated, a pointer *goto* vector statement moves the caller to the next step or to another vector in the callflow.

Specifically:

- Choices 1 and 2 select dynamic announcements. The MENU action places a 3-digit output value (141 or 142, respectively) in the variable *%data1*. The DYN_ANNOUN action in step 2 then speaks a dynamic announcement using the speech phrase specified by the value in *%data1*.
- Choice 3 routes callers to vector 32. See “Twelfth Vector — Quit” on page 5-113.

There are two screens for the MENU action. You access the second screen by pressing NEXTPAGE **[F5]**.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 12, 1996

5 MENU Action Step Number 1 for vector 42

NORMAL INPUT :

Prompt : Upgrades Main Menu - TT 139

Number of digits to collect : Min 1 Max 1

Time to wait for input (sec): 1st digit 6 Next digit(s) 4

Place in Variables :

Input %ci_value	Output %data1	GOTO Vector	Vector Name
Valid Input	Output Value		
1	141	CONT	
2	142	CONT	
3		32	Quit

Enter the phrase tag for the menu prompt.

HELP CHOICES CLOSE PREUPAGE NEXTPAGE CANCEL REFRESH ADD-PHR

Figure 5-71. MENU Action Form: Normal Input

```
LUCENT TECHNOLOGIES Customer Assist Care Center - September 27, 1996
5 MENU Action Step Number 1 for vector 42

SPECIAL CASES :
  Caller's input not on list :
    Speak Phrase : There was an error. Please enter your choice again 128
    Max. number of tries : 2
    Output Value : 999          GOTO Vector : 32 Quit

  Caller did not enter the 1st digit within the time allowed :
    Speak Phrase : There was an error. Please enter your choice again 128
    Max. number of tries : 2
    Output Value : 999          GOTO Vector : 32 Quit

  Caller did not enter the minimum number of digits required :
    Speak Phrase : There was an error. Please enter your choice again 128
    Max. number of tries : 2
    Output Value : 999          GOTO Vector : 32 Quit

  Caller has no more tries to enter valid input :
    Speak Phrase :

Enter the phrase tag for no more tries above.
HELP CHOICES CLOSE PREVPAGE NEXTPAGE CANCEL REFRESH ADD-PHR
```

Figure 5-72. MENU Action Form: Special Cases

2. DYN_ANNOUN

If callers select choice 1 or 2, the DYN_ANNOUN action speaks a dynamic announcement: a speech phrase identified by the value currently in the variable *%data1*. This phrase is either the "Windows 95 Upgrade Announcement" (phrase number 141) or the "All other Upgrades Announcement" (phrase number 142).

3. GOTO

Routes the caller to vector 43. See "Sixth Vector — RC-BB-Return?" on page 5-96.

4. QUIT

Quits the vector and returns control of the call to the DEFINITY vector.

Sixth Vector — RC-BB-Return?

This vector asks callers using touch-tone phones whether they want to return to the main menu or exit the system. The bulletin board sends callers to this vector each time it plays a dynamic announcement that provides information selected by the caller with a menu choice.

The screenshot shows a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - September 12, 1996". The main menu on the left includes options like "1 Cust", ">Call Use", "System", "System", "UNIX Sy", and "Exit". The selected option is "1 Cust". The main area displays "EDIT VECTOR NUMBER 43 STEPS". Below this, the vector details are shown: "Vector Name: RC-BB-Return?" and "Vector Number: 43". The description is "Rock Coast Bulletin Board-Return to Main". A table lists the steps for this vector:

Step	Action	Description
1	MENU	To Return to Main Menu - TT
2	QUIT	
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		

At the bottom, there is a prompt "Enter the vector name." and a row of buttons: HELP, INSERT, REMOVE, DEFINE, ENTER, CANCEL, REFRESH, and CHG-KEYS.

Figure 5-73. Finished RC-BB-Return? Vector

Step Descriptions

1. MENU

Speaks a phrase (number 131 in the callflow) that describes 2 menu choices. Callers select 1 of the choices with their touch-tone phones.

Care Center collects the input from the caller and places the collected digits into the variable *%ci_value*.

The Min and Max values of 1 indicate that Care Center is looking for a minimum and maximum of 1 collected digit from the caller.

Care Center places the output value into the variable *%data1*.

After the variable *%data1* is populated, a pointer *goto* vector statement moves the caller to the next step or to another vector in the callflow.

Choices 1 and 2 route callers to vectors 39 and 32, respectively. See "Second Vector — RC-BB-TT Menu" on page 5-84 and "Twelfth Vector — Quit" on page 5-113.

There are two screens for the MENU action. You access the second screen by pressing **NEXTPAGE** [F5].

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 12, 1996
5 MENU Action Step Number 1 for vector 43

NORMAL INPUT :
Prompt : To Return to Main Menu - TT 131
Number of digits to collect : Min 1 Max 1
Time to wait for input (sec): 1st digit 6 Next digit(s) 4

Place in Variables :
Input %ci_value Output %data1
Valid Input Output Value GOTO Vector Vector Name
1 39 RC-BB-TT Menu
2 32 Quit
  1
  2
  3
  4
  5
  6
  7
  8
  9
  0

Enter the phrase tag for the menu prompt.
HELP CHOICES CLOSE PREUPAGE NEXTPAGE CANCEL REFRESH ADD-PHR
  
```

Figure 5-74. MENU Action Form: Normal Input

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 27, 1996
5 MENU Action Step Number 1 for vector 43

SPECIAL CASES :
Caller's input not on list :
  Speak Phrase : There was an error. Please enter your choice again 128
  Max. number of tries : 2
  Output Value : 999 GOTO Vector : CONT

Caller did not enter the 1st digit within the time allowed :
  Speak Phrase : There was an error. Please enter your choice again 128
  Max. number of tries : 2
  Output Value : 999 GOTO Vector : CONT

Caller did not enter the minimum number of digits required :
  Speak Phrase : There was an error. Please enter your choice again 128
  Max. number of tries : 2
  Output Value : 999 GOTO Vector : CONT

Caller has no more tries to enter valid input :
  Speak Phrase :

Enter the phrase tag for input not on list above.
HELP CHOICES CLOSE PREUPAGE NEXTPAGE CANCEL REFRESH ADD-PHR
  
```

Figure 5-75. MENU Action Form: Special Cases

2. QUIT

Quits the vector and returns control of the call to the DEFINITY vector.

Seventh Vector — RC-BB-SR Info

This vector provides the Information Menu for callers using speech recognition. See Figure 5-56 on page 5-76.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 12, 1996

1 Custo 4 EDIT VECTOR NUMBER 44 STEPS

>Call Use
System
System
UNIX Sy
Exit

Vector Name: RC-BB-SR Info Vector Number: 44
Description: Rock Coast Bulletin Board SpeechRec Info

Step	Action	Description
1	SET	%num_tried = %num_tried = 0
2	GET_SPCH	get digits and load into %ci_value
3	GOTO	Step 8 if %num_dig_got = 1
4	SET	%num_tried = %num_tried + 1
5	GOTO	Vector 32 if %num_tried = 2
6	ANNOUNCE	There was an error. Please enter your choice again
7	GOTO	Step 2 unconditionally
8	SET	%ci_value = %ci_value + 133
9	SWITCH	Routes callers to appropriate place
10	DYN_ANNOUN	phrase in %ci_value
11	GOTO	Vector 46 unconditionally
12	QUIT	
13		
14		

Enter the vector name.

HELP INSERT REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS

Figure 5-76. Finished RC-BB-SR Info Vector

Step Descriptions

1. SET

Sets a counter variable, *%num_tried*, to 0. The vector uses this variable to count the number of times that a caller tries to speak the number of a valid menu choice at the GET_SPCH action. A caller is allowed 2 tries. After 2 unsuccessful tries, the GOTO action in step 5 routes the caller to the quit vector.

2. GET_SPCH

This action speaks a phrase (number 134, as shown in the callflow) that describes 5 menu choices and then uses the speech-recognition package to listen to callers' voices as they make a choice.

The action:

- Accepts as valid input 1 digit with a value between 1 and 5 and places the digit in the variable *%ci_value*
- Places the number of digits collected (either 0 or 1) into the variable *%num_dig_got*

There will be no confirmation of the choices that the caller made using speech recognition.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 12, 1996
1 Custo 4 EDIT VECTOR NUMBER 44 STEPS
>Call Use
System Vector Name: RC-BB-SR Info Vector Number: 44
5 GET_SPCH ACTION, STEP 2 for vector 44

Get Speech Step gathers Spoken Digit(s) from caller
Comment: Speech Recognition Prompt
Consolidate responses into variable: %ci_value
Place number of digits collected into: %num_dig_got

Phrase Tag Number Valid Input
Information Main Menu - SR 134 1 digit:1-5

Confirmation: None Time limit per response: 6

Please enter your comments.
HELP CHOICES CLOSE ENTER CANCEL REFRESH ADD-PHR
  
```

Figure 5-77. GET_SPCH Action Form

3. GOTO

Allows a caller who speaks a valid number to continue on in the vector. If the value of `%num_dig_got = 1`, the GOTO action sends the call to step 8 for routing based on the caller's input.

4. SET

If the caller did not speak a valid number (that is, if `%num_dig_got = 0`), this action increases the counter variable, `%num_tried`, by 1.

5. GOTO

Sends a caller who runs out of tries to the `quit` vector. Callers are allowed 2 tries. The GOTO action checks whether the value of the counter variable, `%num_tried`, equals 2.

6. ANNOUNCE

If the caller did not speak a valid number, this step plays a standard announcement: "We're sorry, your response was not recognized. Please try again."

7. GOTO

Loops callers who have not run out of tries back to the GET_SPCH action in step 2.

8. SET

Converts the caller's choice into a 3-digit number that will be used when routing the caller or playing a dynamic announcement. The SET action adds 133 to the value in the variable `%ci_value`.

9. SWITCH

Evaluates the value of the variable *%ci_value* and routes the caller to a vector associated with the value.

- For the value 134 (choice 1), the action routes the caller to vector 48. See “Eleventh Vector — RC-BB-SR Win95” on page 5-110.
- For the value 138 (choice 5), the action routes the caller to vector 32. See “Twelfth Vector — Quit” on page 5-113.

For the values 135, 136, and 137 (choices 2, 3, and 4), the SWITCH action does not contain routing information. Processing continues in the vector.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 12, 1996
4 EDIT VECTOR NUMBER 44 STEPS
Ue 5 SWITCH Action Step Number 9 for vector 44
De
St
Comment: SWITCH evaluates variables and routes matches to vectors
          Routes callers to appropriate place
Variable: %ci_value Operator: =

      VALUE      VECTOR NUM      VECTOR NAME
      134         48      RC-BB-SR Win95
      138         32         Quit

Please enter your comments.
HELP CHOICES CLOSE ENTER CANCEL REFRESH

```

Figure 5-78. SWITCH Action Form

10. DYN_ANNOU

If callers speak 2, 3, or 4, the DYN_ANNOU action speaks a dynamic announcement: a speech phrase identified by the value currently in the variable *%data1*. This phrase is the “Win 3.1.1 Announcement” (phrase number 135), the “Macintosh Announcement” (phrase number 136), or the “Unix Announcement” (phrase number 137).

11. GOTO

Routes the caller to vector 46. See “Ninth Vector — RC-BB-SR Retur” on page 5-104.

12. QUIT

Quits the CONVERSANT vector and returns the call to the DEFINITY vector.

Eighth Vector — RC-BB-SR Upgra

This vector provides the Upgrade Menu for callers using speech recognition. See Figure 5-57 on page 5-77.

Step	Action	Description
1	SET	%num_tried = %num_tried = 0
2	GET_SPCH	get digits and load into %ci_value
3	GOTO	Step 8 if %num_dig_got = 1
4	SET	%num_tried = %num_tried + 1
5	GOTO	Vector 32 if %num_tried = 2
6	ANNOUNCE	There was an error. Please enter your choice again
7	GOTO	Step 2 unconditionally
8	SET	%ci_value = %ci_value + 140
9	SWITCH	Routes callers to appropriate place
10	DYN_ANNOUN	phrase in %ci_value
11	GOTO	Vector 46 unconditionally
12	QUIT	
13		
14		

Figure 5-79. Finished RC-BB-SR Upgra Vector

Step Descriptions

1. SET

Sets a counter variable, *%num_tried*, to 0. The vector uses this variable to count the number of times that a caller tries to speak the number of a valid menu choice at the GET_SPCH action. A caller is allowed 2 tries. After 2 unsuccessful tries, the GOTO action in step 5 routes the caller to the quit vector.

2. GET_SPCH

This action speaks a phrase (number 140, as shown in the callflow) that describes 3 menu choices and then uses the speech-recognition package to listen to callers' voices as they make a choice.

The action:

- Accepts as valid input 1 digit with a value between 1 and 3 and places the digit in the variable *%ci_value*
- Places the number of digits collected (either 0 or 1) into the variable *%num_dig_got*

There will be no confirmation of the choices that the caller made using speech recognition.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 12, 1996

1 Custo 4 EDIT VECTOR NUMBER 45 STEPS

>Call Use System Vector Name: RC-BB-SR Upgra Vector Number: 45

5 GET_SPCH ACTION, STEP 2 for vector 45

Get Speech Step gathers Spoken Digit(s) from caller

Comment: Speech Recognition Prompt

Consolidate responses into variable: %ci_value
Place number of digits collected into: %num_dig_got

Phrase Tag	Number	Valid Input
<u>Upgrades Main Menu - SR</u>	140	<u>1 digit:1-3</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Confirmation: None Time limit per response: 6

Please enter your comments.

HELP CHOICES CLOSE ENTER CANCEL REFRESH ADD-PHR

Figure 5-80. GET_SPCH Action Form

3. GOTO

Allows a caller who speaks a valid number to continue on in the vector. If the value of *%num_dig_got* = 1, the GOTO action sends the call to step 8 for routing based on the caller's input.

4. SET

If the caller did not speak a valid number (that is, if *%num_dig_got* = 0), this action Increases the counter variable, *%num_tried*, by 1.

5. GOTO

Sends a caller who runs out of tries to the quit vector. Callers are allowed 2 tries. The GOTO action checks whether the value of the counter variable, *%num_tried*, equals 2.

6. ANNOUNCE

If the caller did not speak a valid number, this step plays a standard announcement: "We're sorry, your response was not recognized. Please try again."

7. GOTO

Loops callers who have not run out of tries back to the GET_SPCH action in step 2.

8. SET

Converts the caller's choice into a 3-digit number that will be used when routing the caller or playing a dynamic announcement. The SET action adds 140 to the value in the variable *%ci_value*.

9. SWITCH

Evaluates the value of the variable *%ci_value* and routes the caller to a vector associated with the value.

For the value 143 (GET_SPCH choice 3), the action routes the caller to vector 32. See “Twelfth Vector — Quit” on page 5-113.

For the values 141 and 142 (GET_SPCH choices 1 and 2), the SWITCH action does not contain routing information. Processing continues in the current vector.

The screenshot shows a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - September 12, 1996". The main window is titled "EDIT VECTOR NUMBER 45 STEPS". On the left is a menu with options: "1 Custo", ">Call Use", "System", "System", "UNIX Sy", and "Exit". Below this is a list of RC-B options from 38 to 47. The main area displays the configuration for "SWITCH Action Step Number 9 for vector 45". It includes a description: "SWITCH evaluates variables and routes matches to vectors", a comment: "Routes callers to appropriate place", and a variable/operator pair: "Variable: %ci_value Operator: =". Below this is a table with columns "VALUE", "VECTOR NUM", and "VECTOR NAME". The first row shows "143", "32", and "Quit". At the bottom, there is a prompt "Please enter your comments." and a row of buttons: "HELP", "CHOICES", "CLOSE", "ENTER", "CANCEL", and "REFRESH".

VALUE	VECTOR NUM	VECTOR NAME
143	32	Quit

Figure 5-81. SWITCH Action Form

10. DYN_ANNOUN

If callers speak 1 or 2, the DYN_ANNOUN action speaks a dynamic announcement: a speech phrase identified by the value currently in the variable *%data1*. This phrase is either the “Windows 95 Upgrade Announcement” (phrase number 141) or the “All other Upgrades Announcement” (phrase number 142).

11. GOTO

Routes the caller to vector 46. See “Ninth Vector — RC-BB-SR Return” on page 5-104.

12. QUIT

Quits the CONVERSANT vector and returns the call to the DEFINITY vector.

Ninth Vector — RC-BB-SR Retur

This vector asks callers using speech recognition whether they want to return to the main menu or exit the system. The bulletin board sends callers to this vector each time it plays a dynamic announcement that provides information selected by the caller with a menu choice.

The screenshot shows a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - September 12, 1996". The main menu on the left includes options like "1 Custo", ">Call Ue", "System", "System", "UNIX Sy", and "Exit". The selected option is "4", which leads to "EDIT UECTOR NUMBER 46 STEPS".

The vector configuration details are as follows:

- Vector Name: RC-BB-SR Retur
- Vector Number: 46
- Description: Rock Coast Bulletin Board SpeechRec Retu

Step	Action	Description
1	SET	%num_tried = %num_tried = 0
2	GET_SPCH	get digits and load into %ci_value
3	GOTO	Step 8 if %num_dig_got = 1
4	SET	%num_tried = %num_tried + 1
5	GOTO	Vector 32 if %num_tried = 2
6	ANNOUNCE	There was an error. Please enter your choice again
7	GOTO	Step 2 unconditionally
8	SWITCH	Routes callers to appropriate place
9	QUIT	
10		
11		
12		
13		
14		

At the bottom, there is a prompt "Enter the vector name." and a row of buttons: HELP, INSERT, REMOVE, DEFINE, ENTER, CANCEL, REFRESH, and CHG-KEYS.

Figure 5-82. Finished RC-BB-SR Retur Vector

Step Descriptions

1. SET

Sets a counter variable, *%num_tried*, to 0. The vector uses this variable to count the number of times that a caller tries to speak the number of a valid menu choice at the GET_SPCH action. A caller is allowed 2 tries. After 2 unsuccessful tries, the GOTO action in step 5 routes the caller to the quit vector.

2. GET_SPCH

Speaks a phrase (number 132, as shown in the callflow) that describes 2 menu choices and then uses the speech-recognition package to listen to callers' voices as they make a choice.

The action:

- Accepts as valid input 1 digit with a value between 1 and 2 and places the digit in the variable *%ci_value*
- Places the number of digits collected (either 0 or 1) for the variable *%ci_value* into the variable *%num_dig_got*

There will be no confirmation of the choices that the caller made using speech recognition.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 27, 1996
1 Custo 4 EDIT VECTOR NUMBER 46 STEPS
>Call Use System Vector Name: RC-BB-SR Return Vector Number: 46
5 GET_SPCH ACTION, STEP 2 for vector 46

Get Speech Step gathers Spoken Digit(s) from caller
Comment: Speech Recognition Prompt
Consolidate responses into variable: %ci_value
Place number of digits collected into: %num_dig_got

Phrase Tag Number Valid Input
Return to Main Menu - SR 132 yes-no

Confirmation: None Time limit per response: 6

Please enter your comments.
HELP CHOICES CLOSE ENTER CANCEL REFRESH ADD-PHR

```

Figure 5-83. GET_SPCH Action Form



NOTE:

Figure 5-83 incorrectly shows the valid input for the GET_SPCH action as yes-no rather than 1 digit:1-2. Although yes/no responses do not match the callflow or the SWITCH action step in this vector, you can use yes and no input with speech recognition. The GET_SPCH action would place either 1 for “Yes” or 0 for “No” in the variable `%ci_value`.

3. GOTO

Allows a caller who speaks valid data to continue on in the vector.

If the value of `%num_dig_got = 1`, the GOTO action sends the call to step 8 for routing based on the caller's input.

4. SET

If the caller did not speak a valid number (that is, if `%num_dig_got = 0`), this action Increases the counter variable, `%num_tried`, by 1.

5. GOTO

Sends a caller who runs out of tries to the quit vector.

Callers are allowed 2 tries. The GOTO action checks whether the value of the counter variable, `%num_tried`, equals 2.

6. ANNOUNCE

If the caller did not speak a valid number, this step plays a standard announcement: "We're sorry, your response was not recognized. Please try again."

7. GOTO

Loops callers who have not run out of tries back to the GET_SPCH action in step 2.

8. SWITCH

Evaluates the value of the variable *%ci_value* and routes the caller to a vector associated with the value.

For the value 1 (GET_SPCH choice 1), the action routes the caller to vector 40. See "Third Vector — RC-BB-SR Main" on page 5-87.

For the value 2 (GET_SPCH choice 2), the action routes the caller to vector 32. See "Twelfth Vector — Quit" on page 5-113.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 27, 1996
EDIT VECTOR NUMBER 46 STEPS

Ue 5 SWITCH Action Step Number 8 for vector 46
De
St SWITCH evaluates variables and routes matches to vectors
Comment: Routes callers to appropriate place
Variable: %ci_value Operator: =

  VALUE      VECTOR NUM      VECTOR NAME
  1          40      RC-BB-SR Main
  2          32          Quit

Please enter your comments.
HELP CHOICES CLOSE ENTER CANCEL REFRESH

```

Figure 5-84. SWITCH Action Form

9. QUIT

Quits the CONVERSANT vector and returns the call to the DEFINITY vector.

Tenth Vector — RC-BB-Win95Men

This vector provides the Windows 95 Menu for callers using touch-tone phones. See Figure 5-52 on page 5-72. This is the lowest level in the bulletin board.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 27, 1996		
4 EDIT VECTOR NUMBER 47 STEPS		
>Call Use	Vector Name:	RC-BB-Win95Men
System	Vector Number:	47
System	Description:	Rock Coast Bulletin Board Win95 Menu TT
UNIX Sy		
Exit		
	Step	Action Description
	1	MENU Windows 95 Main Menu - TT
3 Edi	2	DYN_ANNOU phrase in %data1
38 RC-B	3	GOTO Vector 43 unconditionally
39 RC-B	4	QUIT
40 RC-B	5	
41 RC-B	6	
42 RC-B	7	
43 RC-B	8	
44 RC-B	9	
45 RC-B	10	
46 RC-B	11	
>47 RC-B	12	
	13	
	14	

Enter the vector name.

HELP	INSERT	REMOVE	DEFINE	ENTER	CANCEL	REFRESH	CHG-KEYS

Figure 5-85. Finished RC-BB-win95Men Vector

Step Descriptions

1. MENU

Speaks a phrase (number 143 in the callflow) that describes 3 menu choices. Callers select 1 of the choices with their touch-tone phones.

Care Center collects the input from the caller and places the collected digits into the variable *%ci_value*.

The Min and Max values of 1 indicate that Care Center is looking for a minimum and maximum of 1 collected digit from the caller.

Care Center places the output value into the variable *%data1*.

After the variable *%data1* is populated, a pointer *goto* vector statement moves the caller to the next step or to another vector in the callflow.

Specifically:

- Choices 1 and 2 select dynamic announcements. The MENU action places a 3-digit output value (145 or 146, respectively) in the variable *%data1*. The DYN_ANNOUN action in step 2 then speaks a dynamic announcement using the speech phrase specified by the value in *%data1*.
- Choice 3 routes callers to vector 32. See “Twelfth Vector — Quit” on page 5-113.

There are two screens for the MENU action. You access the second screen by pressing **NEXTPAGE** **[F5]**.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 12, 1996

5 MENU Action Step Number 1 for vector 47

NORMAL INPUT :

Prompt : Windows 95 Main Menu - TT 143

Number of digits to collect : Min 1 Max 1

Time to wait for input (sec): 1st digit 6 Next digit(s) 4

Place in Variables :

Input %ci_value	Output %data1	GOTO Vector	Vector Name
Valid Input	Output Value		
1	145	CONT	
2	146	CONT	
3		32	Quit

Enter the phrase tag for the menu prompt.

HELP CHOICES CLOSE PREUPAGE NEXTPAGE CANCEL REFRESH ADD-PHR

Figure 5-86. MENU Action Form: Normal Input

```

LUCENT TECHNOLOGIES Customer Assist Care Center - September 27, 1996
5 MENU Action Step Number 1 for vector 47

SPECIAL CASES :
  Caller's input not on list :
    Speak Phrase : There was an error. Please enter your choice again 128
    Max. number of tries : 2
    Output Value : 999 GOTO Vector : 32 Quit

  Caller did not enter the 1st digit within the time allowed :
    Speak Phrase : There was an error. Please enter your choice again 128
    Max. number of tries : 2
    Output Value : 999 GOTO Vector : 32 Quit

  Caller did not enter the minimum number of digits required :
    Speak Phrase : There was an error. Please enter your choice again 128
    Max. number of tries : 2
    Output Value : 999 GOTO Vector : 32 Quit

  Caller has no more tries to enter valid input :
    Speak Phrase : _____

Enter the phrase tag for no more tries above.
HELP CHOICES CLOSE PREUPAGE NEXTPAGE CANCEL REFRESH ADD-PHR
  
```

Figure 5-87. MENU Action Form: Special Cases

2. DYN_ANNOUN

If callers select choice 1 or 2, the DYN_ANNOUN action speaks a dynamic announcement: a speech phrase identified by the value currently in the variable *%data1*. This phrase is either the "Product A Announcement" (phrase number 145) or the "Product B Announcement" (phrase number 146).

3. GOTO

Routes the caller to vector 43. See "Sixth Vector — RC-BB-Return?" on page 5-96.

4. QUIT

Quits the vector and returns control of the call to the DEFINITY vector.

Eleventh Vector — RC-BB-SR Win95

This vector provides the Windows 95 Menu for callers using speech recognition. See Figure 5-58 on page 5-78. This is the lowest level in the bulletin board.

The screenshot shows a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - September 12, 1996". The main menu on the left includes options like ">Call Use", "System", "UNIX Sy", and "Exit". The selected option is "4 EDIT VECTOR NUMBER 48 STEPS". The main area displays the configuration for "Vector Name: RC-BB-SR Win95" and "Vector Number: 48", with a description "Rock Coast Bulletin Board SpeechRecWin95". A table lists 14 steps with their actions and descriptions. At the bottom, there are buttons for "HELP", "INSERT", "REMOVE", "DEFINE", "ENTER", "CANCEL", "REFRESH", and "CHG-KEYS".

Step	Action	Description
1	SET	%num_tried = %num_tried = 0
2	GET_SPCH	get digits and load into %ci_value
3	GOTO	Step 8 if %num_dig_got = 1
4	SET	%num_tried = %num_tried + 1
5	GOTO	Vector 32 if %num_tried = 2
6	ANNOUNCE	There was an error. Please enter your choice again
7	GOTO	Step 2 unconditionally
8	SET	%ci_value = %ci_value + 144
9	SWITCH	Routes callers to appropriate place
10	DYN_ANNOU	phrase in %ci_value
11	GOTO	Vector 46 unconditionally
12	QUIT	
13		
14		

Figure 5-88. Finished RC-BB-SR Win95 Vector

Step Descriptions

1. SET

Sets a counter variable, *%num_tried*, to 0. The vector uses this variable to count the number of times that a caller tries to speak the number of a valid menu choice at the GET_SPCH action. A caller is allowed 2 tries. After 2 unsuccessful tries, the GOTO action in step 5 routes the caller to the quit vector.

2. GET_SPCH

This action speaks a phrase (number 144, as shown in the callflow) that describes 3 menu choices and then uses the speech-recognition package to listen to callers' voices as they make a choice.

The action:

- Accepts as valid input 1 digit with a value between 1 and 3 and places the digit in the variable *%ci_value*
- Places the number of digits collected (either 0 or 1) into the variable *%num_dig_got*

There will be no confirmation of the choices that the caller made using speech recognition.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 12, 1996		
1 Custo	4	EDIT VECTOR NUMBER 48 STEPS
>Call Use	Vector Name: RC-BB-SR Win95 Vector Number: 48	
System	5 GET_SPCH ACTION, STEP 2 for vector 48	
Get Speech Step gathers Spoken Digit(s) from caller		
Comment: <u>Speech Recognition Prompt</u>		
Consolidate responses into variable: <u>%ci_value</u>		
Place number of digits collected into: <u>%num_dig_got</u>		
Phrase Tag	Number	Valid Input
Windows 95 Main Menu - SR	144	1 digit:1-3
Confirmation: <u>None</u> Time limit per response: <u>6</u>		
Please enter your comments.		
HELP	CHOICES	CLOSE
ENTER	CANCEL	REFRESH
ADD-PHR		

Figure 5-89. GET_SPCH Action Form

3. GOTO

Allows a caller who speaks a valid number to continue on in the vector. If the value of *%num_dig_got* = 1, the GOTO action sends the call to step 8 for routing based on the caller's input.

4. SET

If the caller did not speak a valid number (that is, if *%num_dig_got* = 0), this action Increases the counter variable, *%num_tried*, by 1.

5. GOTO

Sends a caller who runs out of tries to the quit vector. Callers are allowed 2 tries. The GOTO action checks whether the value of the counter variable, *%num_tried*, equals 2.

6. ANNOUNCE

If the caller did not speak a valid number, this step plays a standard announcement: "We're sorry, your response was not recognized. Please try again."

7. GOTO

Loops callers who have not run out of tries back to the GET_SPCH action in step 2.

8. SET

Converts the caller's choice into a 3-digit number that will be used when routing the caller or playing a dynamic announcement. The SET action adds 144 to the value in the variable *%ci_value*.

9. SWITCH

Evaluates the value of the variable *%ci_value* and routes the caller to a vector associated with the value.

For the value 147 (GET_SPCH choice 3), the action routes the caller to vector 32. See “Twelfth Vector — Quit” on page 5-113.

For the values 141 and 142 (GET_SPCH choices 1 and 2), the SWITCH action does not contain routing information. Processing continues in the current vector.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 12, 1996

EDIT VECTOR NUMBER 48 STEPS

1 Custo 4 SWITCH Action Step Number 9 for vector 48

>Call Use
System
System
UNIX Sy
Exit

3 Edi
39!RC-B
40!RC-B
41!RC-B
42!RC-B
43!RC-B
44!RC-B
45!RC-B
46!RC-B
47!RC-B
>48!RC-B

Ue 5
De
St

SWITCH evaluates variables and routes matches to vectors
Comment: Routes callers to appropriate place
Variable: %ci_value Operator: =

VALUE	VECTOR NUM	VECTOR NAME
147	32	Quit

Please enter your comments.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 5-90. SWITCH Action Form

10. DYN_ANNOUN

If callers speak 1 or 2, the DYN_ANNOUN action speaks a dynamic announcement: a speech phrase identified by the value currently in the variable *%data1*. This phrase is either the “Product A Announcement” (phrase number 145) or the “Product B Announcement” (phrase number 146).

11. GOTO

Routes the caller to vector 46. See “Ninth Vector — RC-BB-SR Return” on page 5-104.

12. QUIT

Quits the CONVERSANT vector and returns the call to the DEFINITY vector.

Twelfth Vector — Quit

This vector plays a final announcement and returns callers to the switch.

LUCENT TECHNOLOGIES Customer Assist Care Center - September 12, 1996

4 EDIT VECTOR NUMBER 32 STEPS

Vector Name: Quit Vector Number: 32
 Description: Quit

Step	Action	Description
1	ANNOUNCE	Goodbye.
2	QUIT	
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		

Enter the vector name.

HELP INSERT REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS

Figure 5-91. Finished Quit Vector

Step Descriptions

1. ANNOUNCE

Plays a standard announcement: "Thank you for calling Rock Coast Computer Software. Goodbye."

2. QUIT

Quits the CONVERSANT vector and sends the caller back to the DEFINITY vector.

Sample Application #6: Announce Queue Position

Business Situation

The Rock Coast Software Company wants to provide callers who are on hold with information about their actual queue position. For example, callers would hear an announcement such as, “The Rock Coast Customer Service Department will be with you shortly. Currently, there are [number of] callers ahead of you waiting to speak with our agents. We will be with you as soon as possible.”

The actual delivery of this queue position information is the focus of this sample application. Refer to the “Sample Application #7: Estimated Wait Time” on page 5-121 to see how to provide callers with choices, such as Estimated Wait Time, Anticipated Delay, and Queue Position, that they can select, based on queue-related information.

The lessons learned in earlier sample applications are background for this sample application.

Callflow Diagram

The following diagram shows the callflow for this sample application.

ROCK COAST 6. ANNOUNCE QUEUE POSITION

Call Flow,
1/15/97

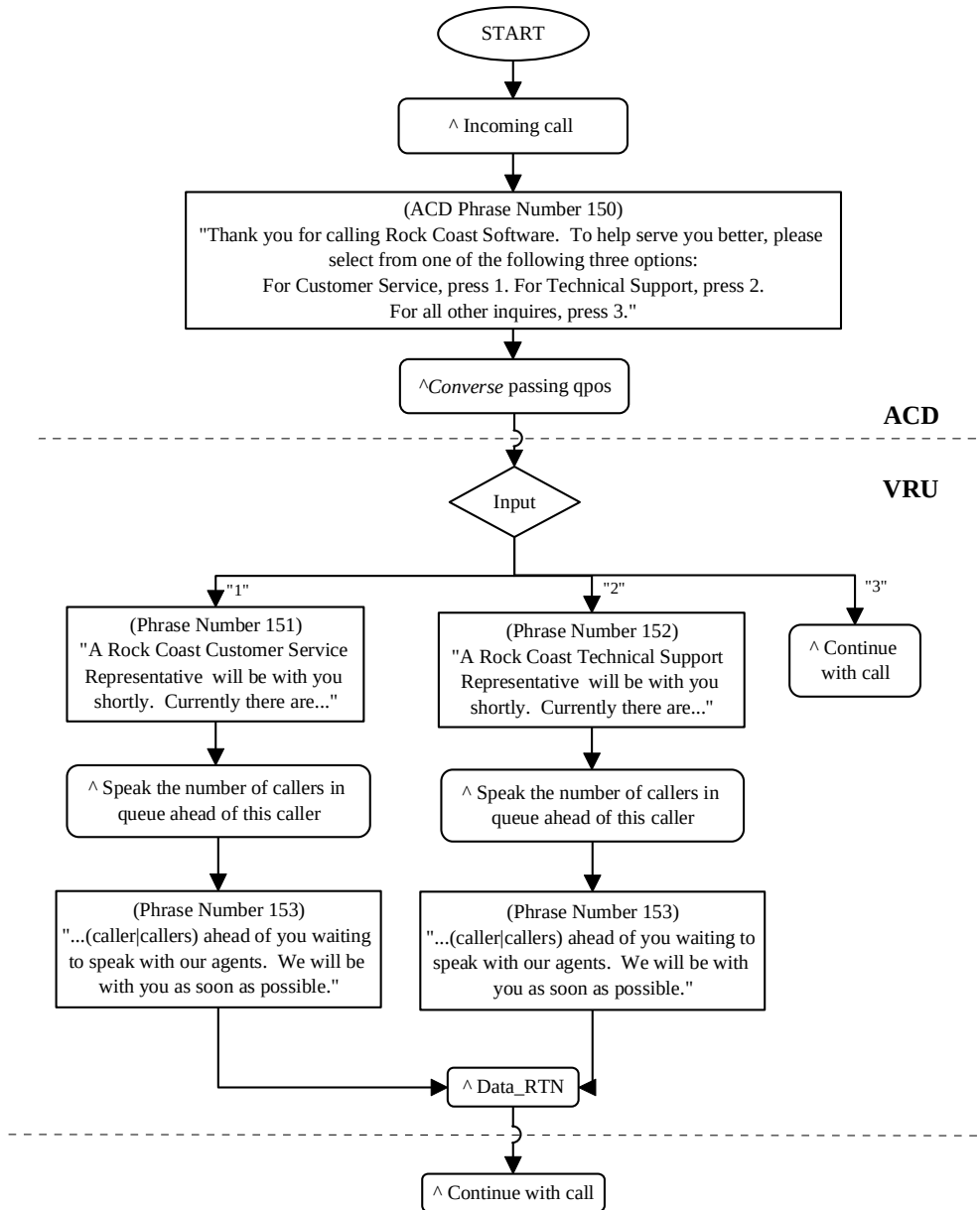


Figure 5-92. Announce Queue Position Call Flow

ECS R5/DEFINITY Vector

This sample application uses one DEFINITY vector. The vector uses a Converse vector step to pass a caller to the CONVERSANT and Care Center.

Assumptions: Agent Queue Splits are 1 (Customer Service), 2 (Technical Support, and 3 (General Support.) The CONVERSANT split is Split 4.

1. collect 1 digits after announcement 150
2. goto step 7 if digits = 1
3. goto step 12 if digits = 2
4. queue-to main split 3 pri m
5. wait-time 60 secs hearing music
6. goto step 5 if unconditionally
7. queue-to main split 1 pri m
8. wait-time 0 secs hearing music
9. converse-on split 4 pri m passing qpos and 1
10. wait-time 60 secs hearing music
11. goto step 10 if unconditionally
12. queue-to main split 2 pri m
13. wait-time 0 secs hearing music
14. converse-on split 4 pri m passing qpos and 2
15. wait-time 60 secs hearing music
16. goto step 15 if unconditionally

CONVERSANT Speech Administration

In this sample application, you will need to record speech for phrase numbers 150-153. See the callflow for the text of these phrases.

For information on how to create new vector phrases or how to record vector phrases, refer to "Sample Application #2: Standard Announcement" on page 5-25.

CONVERSANT Vector

This sample application uses one CONVERSANT vector, called RC-AnnQueuePos.

This vector controls the following:

- receiving the queue position information from the switch
- receiving the current department that the caller is in from the switch
- converting the queue position data to the number of callers ahead of the current caller
- speaking this converted queue position information in a concatenated announcement to the caller

LUCENT TECHNOLOGIES Customer Assist Care Center - December 20, 1996

1 Custo 4 EDIT VECTOR NUMBER 44 STEPS

>Call Use Vector Name: RC-AnnQueuePos Vector Number: 44
System Description: Rock Coast - Announce Queue Position
System
UNIX Sy
Exit

Step	Action	Description
1	CONVERSE	collect 3 digits into %qpos
2	CONVERSE	collect 1 digits into %data1
3	GOTO	Step 5 if %qpos = 1
4	SET	%qpos = %qpos - 1
5	GOTO	Step 10 if %data1 = 2
6	ANNOUNCE	A Rock Coast Customer Service Rep will be with you
7	SPEAK_NUM	in %qpos as Number
8	ANNOUNCE	...callers ahead of you waiting to speak with...
9	GOTO	Step 13 unconditionally
10	ANNOUNCE	A Rock Coast Technical Support Rep will be with...
11	SPEAK_NUM	in %qpos as Number
12	ANNOUNCE	...callers ahead of you waiting to speak with...
13	DATA_RTN	to PBX with *01
14	QUIT	

Enter the vector name.

HELP INSERT REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS

Figure 5-93. Finished RC-AnnQueuePos Vector

Step Descriptions

1. CONVERSE

Collects the queue position information (3 digits) from the switch and places it in the variable *%qpos*.

2. CONVERSE

Collects a single digit from the switch that corresponds to the department that the caller is currently queued in. The CONVERSE action places the digit in the variable *%data1*.

In this example, if a 1 is passed, then Care Center knows that the caller is in Customer Service. Likewise, if 2 is passed, then the caller is in Technical Support.



NOTE:

In this sample application, if the caller pressed “3” on the switch “for all other inquiries,” the caller will not hear their queue position. See Figure 5-92 on page 5-116.

3. GOTO

Jumps the caller to step 5 if their current queue position is 1.

This GOTO action skips step 4, which would subtract 1 from the value of the current queue position, leaving 0. The ANNOUNCE and SPEAK_NUM actions would then announce: “There are currently 0 callers ahead of you.” Skipping step 4 assures that the announcement always says that there is at least 1 caller ahead of the caller in queue.

4. SET

Converts the queue position information to the number of callers ahead of the current caller by subtracting 1 from the value.

5. GOTO

Routes the caller to step 10 if they are currently queued in the Technical Support department, that is, if *%data1* = 2.

Because callers that do not go to step 10 are currently queued in the Customer Service department, the next three steps give the Customer Service version of the queue position announcement.

6. ANNOUNCE

Speaks the first part of the concatenated queue position announcement: “A Rock Coast Customer Service Representative will be with you shortly. Currently there are...”

7. SPEAK_NUM

Speaks the modified queue position (that is, the number of callers ahead of the current caller) as a number.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - December 20, 1996
1 Custo 4 EDIT VECTOR NUMBER 44 STEPS
>Call Use
System Vector Name: RC-AnnQueuePos Vector Number: 44
System Description: Rock Coast - Announce Queue Position
UNIX Sy
Exit

Step Action Description
1 CONVERSE collect 3 digits into %qpos
2 CONVERSE collect 1 digits into %data1
3 GOTO Step 5 if %qpos = 1
37!Queu 3
38!Rout 4 SET %qpos = %qpos - 1
39!RC-A 5 GOTO Step 10 if %data1 = 2
40!RC-A 6 5 SPEAK_NUMBER Action Step Number 7 for vector 44
41!exec 7
42!RC-A 8 SPEAK NUMBER Action step speaks number or string to caller
43!Quit 9
>44!RC-A 10 Number: %qpos
45!test 11
46!MLS_ 12 Speak as Number/Character string: Number
13
14 Note : Speaks numbers over 9 digits as characters.

Enter the number or variable, follow by the Return or ENTER key.
HELP CHOICES CLOSE ENTER CANCEL REFRESH

```

Figure 5-94. SPEAK_NUM Action Form

8. ANNOUNCE

Speaks the last part of the concatenated queue position announcement to the caller: "callers ahead of you waiting to speak with out agents. We will be with you as soon as possible."

9. GOTO

Sends the caller to the DATA_RTN action at the end of the vector.

10. ANNOUNCE

Speaks the first part of the concatenated queue position announcement for callers in the Technical Support department: "A Rock Coast Technical Support Representative will be with you shortly. Currently there are..."

11. SPEAK_NUM

Speaks the modified queue position (that is, the number of callers ahead of the current caller) as a number.

12. ANNOUNCE

Speaks the last part of the concatenated queue position announcement to the caller.

13. DATA_RTN

Returns the caller to the switch.

14. QUIT

Quits Care Center and returns control to the ECS R5/DEFINITY vector.

Sample Application #7: Estimated Wait Time

Business Situation

The Rock Coast Software Company wants to provide callers to its call center with useful additional information while they are on hold, namely, the estimated time the caller will have to wait to be connected to an agent. For example, Rock Coast wants to provide callers with an announcement such as, "The Rock Coast Customer Service Department will be with you shortly. You should expect to hold for approximately [estimated number of] minutes before being connected with an agent."

Rock Coast also wants to provide its callers with additional options after they have received their Estimated Wait Time. They want to allow callers to:

- Continue holding
- Get connected to a bulletin board system
- Use a fax response system

Estimated Wait Time (EWT) announcements are messages that estimate a caller's wait time in queue. This sample application uses the Converse vector step on the G3V4+ switch to pass each call and the switch's Expected Wait Time to Care Center. In turn, Care Center uses the EWT action to:

- Increase or decrease the switch's estimate by a percentage you specify
- Round the result up, down, or to the nearest whole number
- Convert the estimate from seconds to minutes

Subsequent actions communicate the revised wait estimate to the caller.

If you are using a DEFINITY G3V3 or G3V2 switch, use the Anticipated Delay Announcement (ADA_CALC) action described in "ADA_CALC Action" on page 3-2. This action combines your predefined estimates of staff size and average call duration with queue position information from the switch to determine how long a caller will wait. The ADA_CALC action can also be used when Care Center is being used with non-Lucent switches using third-party CTI linkage software between the non-Lucent switch and the CONVERSANT.

The lessons learned in earlier sample applications are background for this sample application.

Callflow Diagram

The following two diagrams show the callflow for this sample application.

7. ESTIMATED WAIT TIME

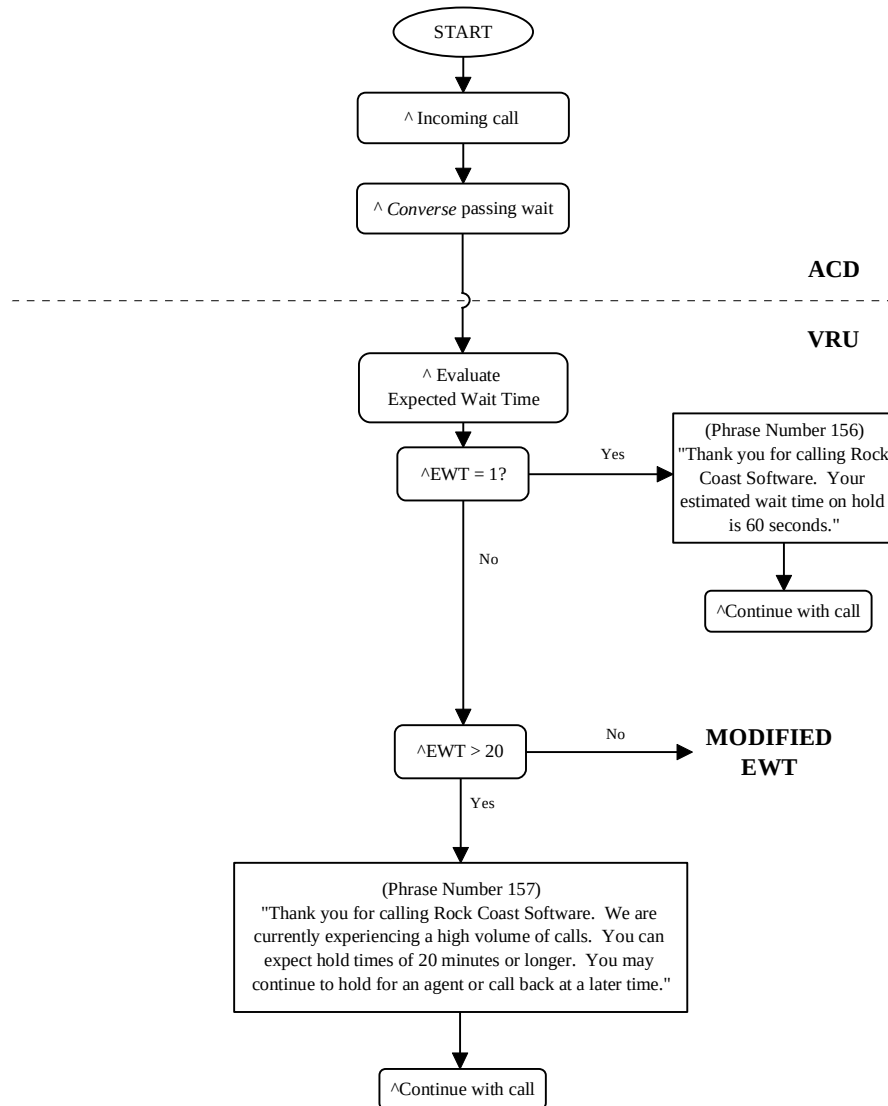


Figure 5-95. EWT Callflow 1

7. ESTIMATED WAIT TIME

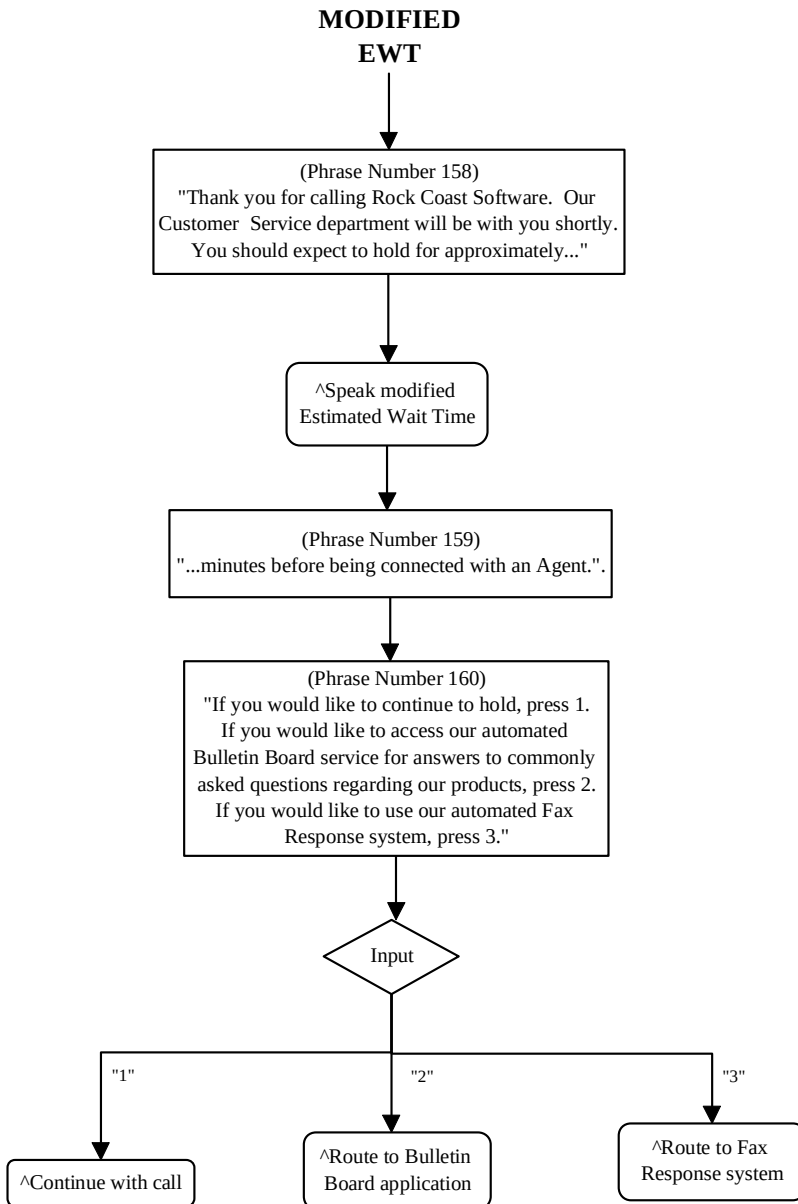


Figure 5-96. EWT Callflow 2

ECS R5/DEFINITY Vector

This sample application uses one DEFINITY vector. The vector uses a Converse vector step to pass a caller to the CONVERSANT and Care Center.

Assumptions: Agent Queue Split is 1 (Customer Service). The CONVERSANT split is Split 2.

1. wait-time 2 secs hearing ringback
2. queue-to main split 1 pri m
3. wait-time 0 secs hearing music
4. converse-on split 2 pri m passing wait and none
5. wait-time 2 secs hearing music

CONVERSANT Speech Administration

In this sample application, you will need to record speech for phrase numbers 156-160. See the callflow for the text of these phrases.

For information on how to create new vector phrases or how to record vector phrases, refer to "Sample Application #2: Standard Announcement" on page 5-25.

CONVERSANT Vector

This sample application uses one CONVERSANT vector, called RC-EWT Announc.

The screenshot shows a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - December 22, 1996". The main menu on the left includes options like "1 Custo", ">Call Ue", "System", "System", "UNIX Sy", and "Exit". The "3 Edit" option is selected, leading to a screen titled "EDIT VECTOR NUMBER 2 STEPS".

At the top of the edit screen, it says "Vector Name: RC-EWT Announc" and "Vector Number: 2". Below this is the "Description: Rock Coast Estimated Wait Time Announc".

Step	Action	Description
1	CONVERSE	collect 5 digits into %data1
2	EWT	calculates the delay from %data1 into %ewt
3	GOTO	Step 9 if %ewt = 1
4	GOTO	Step 11 if %ewt > 20
5	ANNOUNCE	Your estimated wait time on hold is...
6	SPEAK_NUM	in %ewt as Number
7	ANNOUNCE	...minutes.
8	GOTO	Step 13 unconditionally
9	ANNOUNCE	EWT Short Announcement
10	GOTO	Step 14 unconditionally
11	ANNOUNCE	EWT Long Announcement
12	GOTO	Step 14 unconditionally
13	MENU	Press 1 to hold, 2 for bulletin board, 3 for fax
14	QUIT	Returns caller to switch

At the bottom of the screen, it says "Enter the vector name." followed by a row of buttons: HELP, INSERT, REMOVE, DEFINE, ENTER, CANCEL, REFRESH, and CHG-KEYS.

Figure 5-97. Finished RC-EWT Announc Vector

Step Descriptions

1. CONVERSE

Collects the Expected Wait Time information from the switch and places it in the variable *%data1*. Since this information is passed to the CONVERSANT in seconds, this action will collect five digits.

2. EWT

Converts the Expected Wait Time information received from the DEFINITY to an Estimated Wait Time that can be spoken back to the caller.

The action takes the value in the input variable *%data1*, rounds it up to the nearest minute, and places the output value in the variable *%ewt*. This output value is in minutes.

➤ NOTE:

The Weighting Index of 100% indicates that the Estimated Wait Time provided by the switch has not been weighted in Care Center.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 22, 1996			
1 Cust		4 EDIT VECTOR NUMBER 2 STEPS	
>Call Use		Vector Name: RC-EWT Announc Vector Number: 2	
System		Description: Rock Coast Estimated Wait Time Announce	
System			
UNIX Sy			
Exit			
	Step	Action	Description
	1	CONVERSE	collect 5 digits into %data1
3 Edit	2	EWT	calculates the delay from %data1 into %ewt
0!setup	3	GOTO	Step 9 if %ewt = 1
1!RC-BB	4	GOTO	Step 11 if %ewt > 20
>2!RC-EW	5	ANNOUNCE	Your estimated wait time on hold is...
3!RC-Fa	6	SPEAK_NUM	in %ewt as Number
5 EWT ACTION STEP 2 for vector 2			
ESTIMATED WAIT TIME IN QUEUE ACTION			
EWT Input: %data1		Calculated Output: %ewt	
Weighting Index: 100%			
Resolution: Minutes		Rounding: Up	for fax
Comment: Converts EWT to Estimated Wait Time			
Enter the variable that receives estimated wait time.			
HELP CHOICES CLOSE		ENTER CANCEL REFRESH	

Figure 5-98. EWT Action Form

3. GOTO

If the value of the variable `%ewt = 1`, this step routes the caller to step 9, which speaks the short Estimated Wait Time announcement.

4. GOTO

If the value of the variable `%ewt > 20`, this step routes the caller to step 11, which speaks the long Estimated Wait Time announcement.

5. ANNOUNCE

Speaks the first part of the standard Estimated Wait Time announcement: "Thank you for calling Rock Coast Software. Our Customer Service department will be with you shortly. You should expect to hold for approximately...."

6. SPEAK_NUM

Speaks the Estimated Wait Time to the caller as a number.

7. ANNOUNCE

Speaks the last part of the standard Estimated Wait Time announcement: "minutes before being connected with an Agent."

8. GOTO

Sends the caller to step 13 where they can choose their service options from a menu.

9. ANNOUNCE

Speaks the short Estimated Wait Time announcement: "Thank you for calling Rock Coast Software. Your estimated wait time on hold is 60 seconds."

10. GOTO

Sends the caller to the last step in this vector, the QUIT action, so that they return to the DEFINITY.

11. ANNOUNCE

Speaks the long Estimated Wait Time announcement.

12. GOTO

Sends the caller to the last step in the vector, the QUIT action, so that they return to the DEFINITY switch.

13. MENU

Speaks a menu announcement to callers to let them determine what they want to do. Callers can:

- Press 1 to continue to hold, which routes them to the QUIT action in step 14 so that they return to the DEFINITY switch.
- Press 2 to connect to a bulletin board application, much like the one that was developed in the "Sample Application #5: Bulletin Boards" on page 5-67.
- Press 3 to connect to Rock Coast's Fax Response application.

 NOTE:

After pressing 3, the caller is sent to another vector (not shown in this sample application) that has two action steps: EXECUTE and QUIT. To execute the fax system, see "Sample Application #4: Automated Attendants" on page 5-49.

14. QUIT

Quits Care Center and returns control to the ECS R5/DEFINITY vector.

Sample Application #8: Custom Call Routing

Business Situation

The Rock Coast Software Company wants to speed up the processing of its calls by shaving valuable seconds from every call. One way that it is planning on doing this is by capturing the Automatic Number Identification (ANI) from its callers, checking that value against a database table, speaking a dynamic announcement based on their destination, and routing callers dynamically to the appropriate location.

By collecting and transferring information about the caller along with the call, Custom Call Routing allows the call center to chart the path of each call as it is routed to a particular split by means of:

- Automatic Number Identification (ANI)
- Dialed Number Information Service (DNIS)
- Collected Digits

passed from the switch to the Care Center Platform package and matched to a system-administrable routing table. In addition, information such as a customer's account number can be displayed on the agent's telephone or on their PC screen as the agent receives the call.

The lessons learned in earlier sample applications are background for this sample application.

Callflow Diagram

The following diagram shows the callflow for this sample application.

ROCK COAST 8. CUSTOM CALL ROUTING

Call Flow,
1/15/97

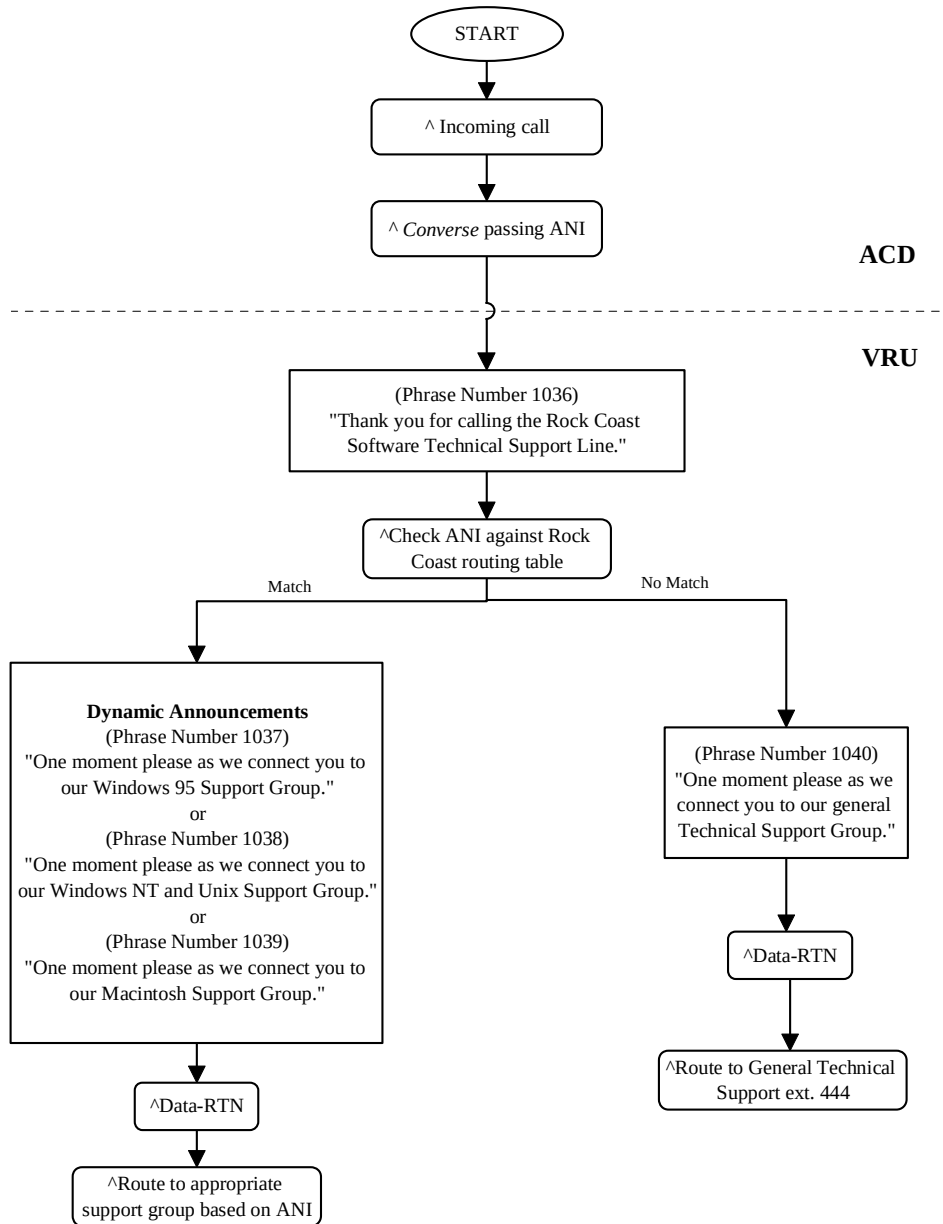


Figure 5-99. Call Routing Callflow

ECS R5/DEFINITY Vector

This sample application uses one DEFINITY vector. The vector uses a Converse vector step to pass a caller to the CONVERSANT and Care Center.

Assumptions: Agent Queue Split is 1. The CONVERSANT split is Split 2.

1. wait-time 2 secs hearing ringback
2. converse on split 2 pri m passing ani and none
3. collect 3 digits after announcement none
4. route-to digits coverage n
5. stop

Custom Call Routing Table

The first task in creating a custom call routing application is to add a new table to your Care Center.

Setting Up the Routing Table

1. Highlight System Administration at the main menu and press **(ENTER)**.
2. Highlight Custom Call Routing Administration and press **(ENTER)**.
3. Highlight Routing Table Administration and press **(ENTER)**.
4. Select ADD TABLE and press **(ENTER)**.
5. Enter information into the following fields
 - Routing Table Name
Spaces are not accepted in the table name. Use an underscore instead.
 - Approximate Maximum Number of Records: the amount of records that this table will eventually contain
 - Description: name or brief description of the table

LUCENT TECHNOLOGIES Customer Assist Care Center - December 20, 1996

1 Customer Assist Care Center
Call Vector Configuration
>System Administration
System Monitor
UNIX System
Exit

2 System Administration
Callback Messaging Administration
Conversant Administration
>Custom Call Routing Administration
Report Generation
Report Scheduling
Speech Administration
System Backup/Restore
Variable Administration

3 Custom Call Routing Administration
Import/Export Data from/to Floppy
>Routing Table Administration
Record Administration

4 Routing Table Administration
>Add Table
Delete Table

5 Add Table
Routing Table Name : Rock_Coast
Approximate Maximum Number of Records : 2000
Description : Rock Coast's Routing Table

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 5-100. Add Table Form

6. Press CLOSE **[F3]** to save the table setup. Press CANCEL **[F6]** to return to the Custom Call Routing Administration menu.

Populating the Routing Table

You can populate this routing table in two ways: either import data into the table or enter data directly into the table.

Importing Data into the Table

1. Select Import/Export Data from/to Floppy
2. Type the appropriate information.

It will look similar to the following screen.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 20, 1996

1 Customer Assist Care Center

2 System Administration

Call Vector Configuration

>System Administration

System Monitor

UNIX System

Exit

Callback Messaging Administration

Conversant Administration

>Custom Call Routing Administration

Report Generation

Report Scheduling

Speech Administration

System Backup/Restore

Variable Administration

3 C 4 Import/Export Routing Table

>Imp

Rou

Rec

Import/Export data from/to DOS diskette

Import/Export: Import

Routing Table Name: Rock Coast

Drive A or Drive B: A

Path: /

Filename: RC-RouteData

Field delimiter:

Filter Non-Numeric?: N

Select routing table import or export.

HELP CHOICES SAVE DIR ENTER CANCEL REFRESH

Figure 5-101. Import/Export Routing Table Form

Entering Data into the Table Directly

1. Select Record Administration and Add Record.
2. Fill out the form with the first record's data.

In this example, Rock Coast Software is using the caller's Automatic Number Identification (ANI) as the Lookup Field.

Data Field #1 contains the dynamic phrase number that is spoken back to the caller

Data Field #2 contains the extension of the switch split that is sent back to the switch at the end of all vectors.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 20, 1996

1 Customer Assist Care Center Call Vector Configuration >System Administration System Monitor UNIX System Exit	2 System Administration Callback Messaging Administration Conversant Administration >Custom Call Routing Administration Report Generation Report Scheduling Speech Administration System Backup/Restore Variable Administration
3 Custom Call Routing Administration Import/Export Data from/to Floppy Routing Table Administration >Record Administration	4 Record Administration Edit/Delete Record >Add Record

5 Record Administration
 Routing Table Name: Rock_Coast
 Lookup Field: 555551111
 Data Field 1: 1037
 Data Field 2: 111

HELP CHOICES ADD CANCEL REFRESH

Figure 5-102. Record Administration Form

LUCENT TECHNOLOGIES Customer Assist Care Center - December 20, 1996

1 Customer Assist Care Center Call Vector Configuration >System Administration System Monitor UNIX System Exit	2 System Administration Callback Messaging Administration Conversant Administration >Custom Call Routing Administration Report Generation Report Scheduling Speech Administration System Backup/Restore Variable Administration
3 Custom Call Routing Administration Import/Export Data from/to Floppy Routing Table Administration >Record Administration	4 Record Administration Edit/Delete Record >Add Record

5 Record Administration
 Routing Table Name: Rock_Coast
 Lookup Field: 555552222
 Data Field 1: 1038
 Data Field 2: 222

HELP CHOICES ADD CANCEL REFRESH

Figure 5-103. Record Administration Form

LUCENT TECHNOLOGIES Customer Assist Care Center - December 20, 1996

1 Customer Assist Care Center
Call Vector Configuration
>System Administration
System Monitor
UNIX System
Exit

2 System Administration
Callback Messaging Administration
Conversant Administration
>Custom Call Routing Administration
Report Generation
Report Scheduling
Speech Administration
System Backup/Restore
Variable Administration

3 Custom Call Routing Administration
Import/Export Data from/to Floppy
Routing Table Administration
>Record Administration

4 Record Administration
Edit/Delete Record
>Add Record

5 Record Administration
Routing Table Name: Rock_Coast
Lookup Field: 5555553333
Data Field 1: 1039
Data Field 2: 333

Please enter the routing table name followed by the Enter or Return key.

HELP CHOICES ADD CANCEL REFRESH

Figure 5-104. Record Administration Form

3. After all of the data has been entered for one record, press ADD **[F3]** to add the data to the Custom Call Routing table.

CONVERSANT Speech Administration

In this sample application, you will need to record speech for phrase numbers 1036-1040. See the callflow for the text of these phrases.

For information on how to create new vector phrases or how to record vector phrases, refer to "Sample Application #2: Standard Announcement" on page 5-25.

CONVERSANT Vector

This sample application uses one CONVERSANT vector, called RC Routing.

The screenshot displays a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - December 20, 1996". The interface is divided into a left-hand menu and a main configuration area. The menu includes options like "1 Custo", "3 Edi", "41|exec", "42|RC-A", "43|Quit", "44|RC-A", "45|test", "46|MLS_", "47|RC R", "48|RC-M", "49|RC-M", and "50|Tran". The main area is titled "EDIT VECTOR NUMBER 47 STEPS". It shows the "Vector Name: RC Routing" and "Vector Number: 47". Below this, a table lists the steps of the vector:

Step	Action	Description
1	CONVERSE	collect 10 digits into %ani
2	LOOK_UP	%ani in table Rock_Coast
3	GOTO	Step 6 if %matched = 1
4	SET	%data1 = %data1 = 1040
5	SET	%data2 = %data2 = 444
6	ANNOUNCE	RC-CCR-Main Greeting
7	DYN_ANNOU	phrase in %data1
8	DATA_RTN	to PBX with *01
9	QUIT	Ends call unconditionally
10		
11		
12		
13		
14		

At the bottom of the window, there is a prompt "Enter the vector name." and a row of buttons: HELP, INSERT, REMOVE, DEFINE, ENTER, CANCEL, REFRESH, and CHG-KEYS.

Figure 5-105. Finished RC Routing Vector

Step Descriptions

1. CONVERSE

Collects 10 digits that are being passed from the switch (the caller's ANI) and places them into a variable called *%ani*.

2. LOOK_UP

Checks the look-up field in the routing table named *Rock_Coast* for a value that matches the value of the variable *%ani* (that is, for a value that matches the caller's ANI).

If the *LOOK_UP* action finds the ANI value, it takes the corresponding values in data field 1 and data field 2 and places them in the variables *%data1* and *%data2*.

The *LOOK_UP* action keeps track of whether or not there were any matches and stores the number of matches in the variable *%matched*.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 20, 1996	
1 Cust	4 EDIT VECTOR NUMBER 47 STEPS
>Call Use	Vector Name: RC Routing Vector Number: 47
System	Description: Rock Coast's Routing Vector
System	
UNIX Sy	
Exit	
3 Edi	
41 exec	Step Action Description
42 RC-A	1 5 LOOK_UP Table Action, Step Number 2 for vector 47
43 Quit	2
44 RC-A	3 LOOK_UP Action looks up values in a database table.
45 test	4
46 MLS_	5 Input Fields
>47 RC R	6 Routing table: Rock_Coast
48 RC-M	7 Look-up field: %ani
49 RC-M	8 Return Fields
50 Tran	9 Number of Matches found: %matched
	1 Data field 1: %data1
	1 Data field 2: %data2
	1
	1 Comment: Look up value and return data
	1 Note: The LOOK_UP action requires that the table be populated.
Enter the routing table name followed by the Return or ENTER key.	
HELP CHOICES CLOSE ENTER CANCEL REFRESH	

Figure 5-106. LOOK_UP Action Form

3. GOTO

Routes the caller to step 6, which speaks the opening announcement, if the ANI passed from the switch is in the routing table (that is, if the variable `%matched = 1`).

4. SET

“Hard-codes” the value of the variable `%data1` as 1040, which is the number of the talkfile phrase that represents the general technical support group.

Steps 4 and 5 “hard code” the numbers of the talkfile phrases because the caller's ANI is not in the custom call routing table, and Care Center can't provide custom routing to specific support groups.

5. SET

“Hard-codes” the value of the variable `%data2` as 444, which is the extension of the general technical support group. This value will get sent to the switch to route the caller.

6. ANNOUNCE

Speaks the opening announcement to the caller: “Thank you for calling the Rock Coast Software Technical Support Line.”

7. DYN_ANNOU

Speaks the dynamic announcement to the caller based on the value in the variable `%data1`.

In this example, the phrase is 1037 for the Windows 95 Support Group, 1038 for the Windows NT and Unix Support Group, 1039 for the Macintosh Support Group, or 1040 for the general Technical Support Group. Phrases 1027, 1038, and 1039 are from the routing table; phrase 1040 is hard-coded.

8. DATA_RTN

Returns the value of the variable *%data2* back to the switch for accurate routing. In this example, the extension is 111, 222, or 333 (from the routing table) or 444 (hard-coded).

9. QUIT

Ends the call unconditionally and returns it to the switch.



NOTE:

You may also use the Custom Call Routing Template provided for you in Care Center. For more information, please refer to "Using the Custom Call Routing Template" on page 4-31.

Sample Application #9: Estimated Wait Time Routing

Business Situation

The Rock Coast Software Company wants to provide callers waiting on hold with useful additional information, namely, the estimated time the caller will have to wait to be connected to an agent. For example, Rock Coast wants to provide callers with an announcement such as “The Rock Coast Customer Service Department will be with you shortly. You should expect to hold for approximately [estimated number of] minutes before being connected with an agent.”

Rock Coast also wants to provide callers with additional options after they have received their Estimated Wait Time. They want to allow callers to:

- Continue holding
- Get connected to a bulletin board system
- Use a fax response system

More importantly in this sample application (as compared to “Sample Application #7: Estimated Wait Time” on page 5-121), Rock Coast Software wants to automatically route callers to specific locations in their call center, based on the result of the EWT calculation. For instance, Rock Coast wants to route callers to an overflow callback messaging mailbox where callers who will have to wait more than 20 minutes will be “forced” to leave a message rather than wait on the phone. This will be more user-friendly for the caller and less expensive for Rock Coast since they will not have to pay the 1-800 trunk charges to keep that caller on the line.

Other options for EWT routing include routing callers to IVR applications such as automated attendants and bulletin boards; to specific overflow extensions or departments; to a randomized dynamic list of promotional announcements, using Custom Call Routing, and then onto a mailbox, IVR application, or department.

The lessons learned in earlier sample applications are background for this sample application.

Callflow Diagram

The following two diagrams show the callflow for this sample application.

9. EWT ROUTING

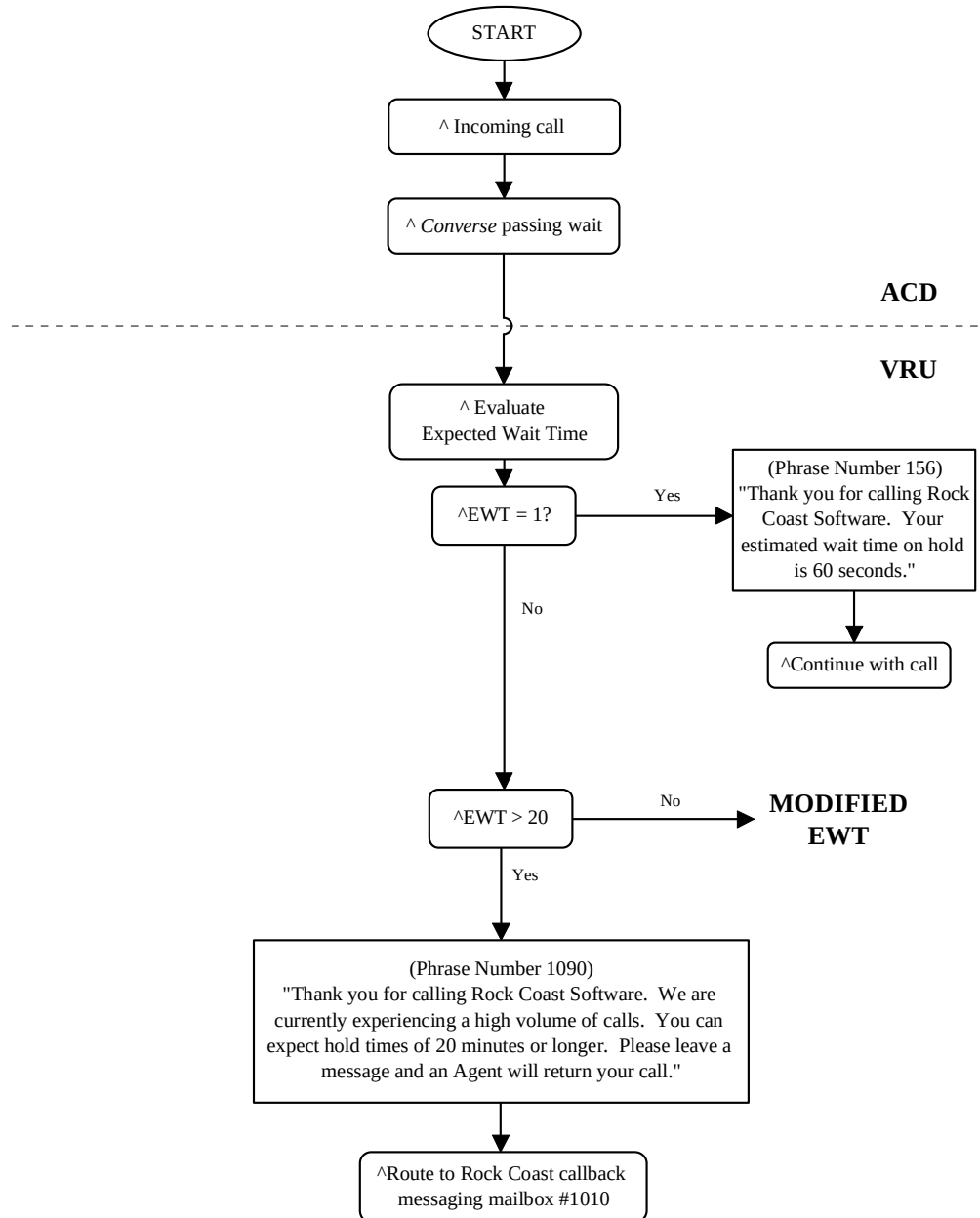


Figure 5-107. EWT Routing Callflow 1

9. EWT ROUTING

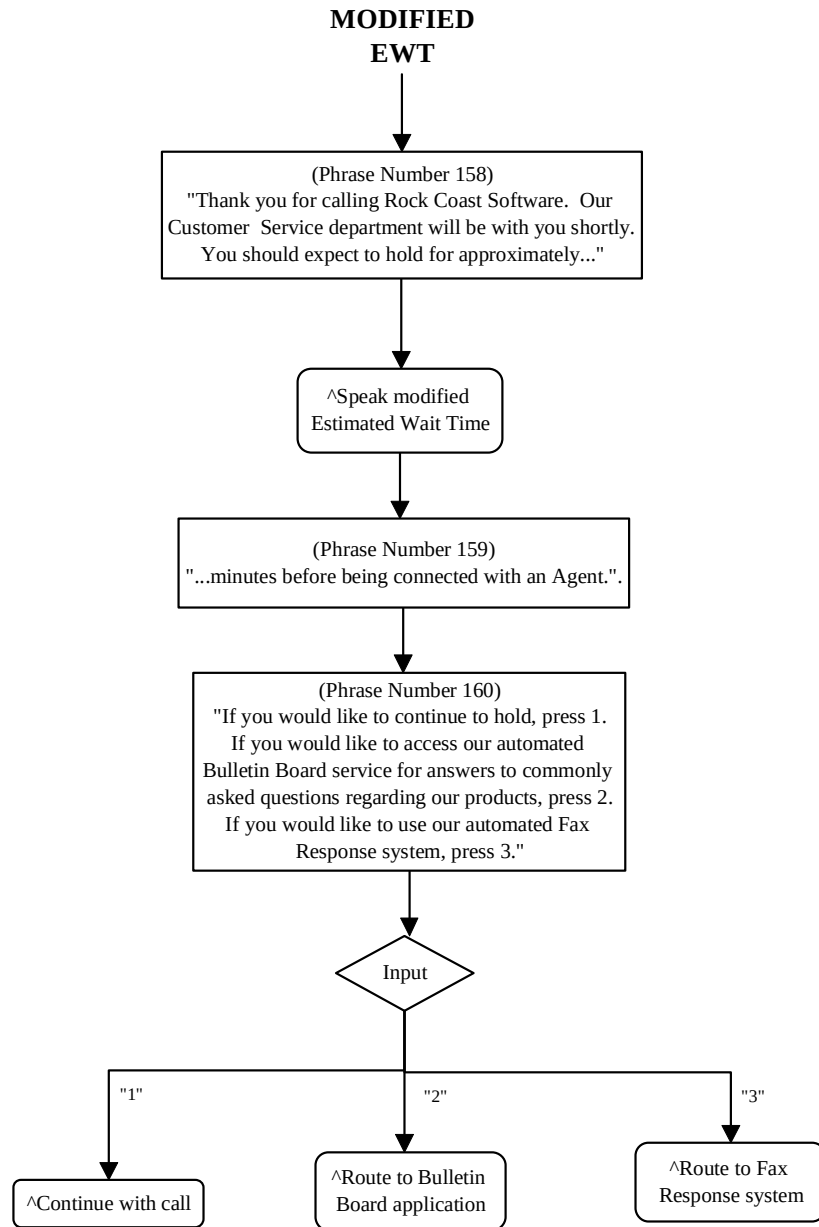


Figure 5-108. EWT Routing Callflow 2

ECS R5/DEFINITY Vector

This sample application uses one DEFINITY vector. The vector uses a Converse vector step to pass a caller to the CONVERSANT and Care Center.

Assumption: Agent Queue split is 1 (Customer Service.) The CONVERSANT split is Split 2.

1. wait-time 2 secs hearing ringback
2. queue-to main split 1 pri m
3. wait-time 0 secs hearing music
4. converse-on split 2 pri m passing wait and none
5. collect 1 digits after announcement none
6. goto step 9 if digits = 1
7. wait-time 60 secs hearing music
8. goto step 7 if unconditionally
9. quit

CONVERSANT Speech Administration

In this sample application, you will need to record speech for phrase numbers 1090, 156, and 158-160. See the callflow for the text of these phrases.

For information on how to create new vector phrases or how to record vector phrases, refer to "Sample Application #2: Standard Announcement" on page 5-25.

CONVERSANT Vectors

This sample application uses three CONVERSANT vectors:

- "First Vector — RC-EWT Routing" on page 5-143
- "Second Vector — RC-Msg Drop" on page 5-145
- "Third Vector — RC-Return ACD" on page 5-147

First Vector — RC-EWT Routing

The RC-EWT Routing vector collects the expected wait time from the switch, converts it to minutes, and uses it to route callers to one of three different announcements depending on whether the estimated wait time is short (1 minute), standard (1-20 minutes), or long (greater than 20 minutes). Except for step 12, this vector closely resembles the CONVERSANT vector in “Sample Application #7: Estimated Wait Time” on page 5-121.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 22, 1996

1 Custo 4 EDIT VECTOR NUMBER 4 STEPS

>Call Use Vector Name: RC-EWT Routing Vector Number: 4
 System Description: Rock Coast EWT Routing
 System
 UNIX Sy
 Exit

Step	Action	Description
1	CONVERSE	collect 5 digits into %data1
2	EWT	calculates the delay from %data1 into %ewt
3	GOTO	Step 9 if %ewt = 1
4	GOTO	Step 11 if %ewt > 20
5	ANNOUNCE	Your estimated wait time on hold is...
6	SPEAK_NUM	in %ewt as Number
7	ANNOUNCE	...minutes.
8	GOTO	Step 13 unconditionally
9	ANNOUNCE	EWT Short Announcement
10	GOTO	Step 14 unconditionally
11	ANNOUNCE	EWT Long Announcement
12	GOTO	Vector 5 unconditionally
13	MENU	Press 1 to hold, 2 for bulletin board, 3 for fax
14	QUIT	Returns caller to switch

Enter the vector name.

HELP INSERT REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS

Figure 5-109. Finished RC-EWT Routing Vector

Step Descriptions

1. CONVERSE

Collects the Expected Wait Time information from the switch and places it in the variable `%data1`. Since this information is passed to the CONVERSANT in seconds, this action will collect five digits.

2. EWT

Converts the Expected Wait Time information received from the DEFINITY to an Estimated Wait Time that can be spoken back to the caller.

The action takes the value in the input variable `%data1`, rounds it up to the nearest minute, and places the output value in the variable `%ewt`. This output value is in minutes.

3. GOTO

If the value of the variable `%ewt = 1`, this step routes the caller to step 9, which speaks the short Estimated Wait Time announcement.

4. GOTO
If the value of the variable `%ewt > 20`, this step routes the caller to step 11, which speaks the long Estimated Wait Time announcement.
5. ANNOUNCE
Speaks the first part of the standard Estimated Wait Time announcement.
6. SPEAK_NUM
Speaks the Estimated Wait Time to the caller as a number.
7. ANNOUNCE
Speaks the last part of the standard Estimated Wait Time announcement.
8. GOTO
Sends the caller to step 13 where they can choose their service options from a menu.
9. ANNOUNCE
Speaks the short Estimated Wait Time announcement.
10. GOTO
Sends the caller to the last step in this vector, the QUIT action, so that they return to the DEFINITY.
11. ANNOUNCE
Speaks the long Estimated Wait Time announcement.
12. GOTO
Sends the caller to the “Second Vector — RC-Msg Drop” on page 5-145. That vector allows the caller to leave a message in the Rock Coast Mailbox.
13. MENU
Speaks a menu announcement to callers to let them determine what they want to do. Callers can:
 - Press 1 to continue to hold, which routes them to the QUIT action in step 14 so that they return to the DEFINITY switch.
 - Press 2 to connect to a bulletin board application, much like the one that was developed in the “Sample Application #5: Bulletin Boards” on page 5-67.
 - Press 3 to connect to Rock Coast’s Fax Response application. After pressing 3, the caller is sent to another vector (not shown in this sample application). To execute the fax application, see “Sample Application #4: Automated Attendants” on page 5-49.
14. QUIT
Quits Care Center and returns control to the ECS R5/DEFINITY vector.

Second Vector — RC-Msg Drop

This vector allows the caller to leave a message in the Rock Coast Mailbox and then routes the caller to one last vector, which routes them back to the switch to end the call.

In this example, the caller is still in queue while they are leaving a message. In some instances, you may find it more appropriate to return the caller to the switch to dequeue them first, returning them to the CONVERSANT, and then allowing them to leave a message. In the “dequeuing” scenario, the overall DEFINITY split length is reduced, overall hold times are lowered, and there is no chance for a caller who is leaving a message to be “yanked” back to the DEFINITY if an agent becomes available. In this sample application however, Rock Coast wants callers with wait times over 20 minutes to stay in queue so they can be connected to an agent if one should become available.

LUCENT TECHNOLOGIES Customer Assist Care Center - January 15, 1997

1 Custo 4 EDIT VECTOR NUMBER 5 STEPS

>Call Use Vector Name: RC-Msg Drop Vector Number: 5
System Description: Rock Coast Message Drop Mailbox
System
UNIX Sy
Exit

Step	Action	Description
1	MSG_DROP	into box %language
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		

3
0!setup
1!Main
2!MB Ac
3!chang
4!Trans
>5!IUR a
6!Speec
7!convE
8!Sched
9!Morni

Enter the vector name.

HELP INSERT REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS

Figure 5-110. Finished RC-Msg Drop Vector

Step Descriptions

1. MSG_DROP

Lets the caller leave a message in a specified mailbox number and then routes the caller to the RC-Return ACD vector.



NOTE:

In Figure 5-111, the mailbox number appears incorrectly as a variable *%language*. This variable is used in place of a mailbox number in “Sample Application #9: Estimated Wait Time Routing” on page 5-139.

LUCENT TECHNOLOGIES Customer Assist Care Center - January 15, 1997		
1 Custo	4	EDIT VECTOR NUMBER 5 STEPS
>Call Ue	Vector Name:	RC-Msg Drop
System	Vector Number:	5
System	Description:	Rock Coast Message Drop Mailbox
UNIX Sy		
Exit		
	Step	Action Description
	5	Message Drop Action, Step Number 1 for vector 5
		MSG_DROP Action saves a multi-part message.
		Message Drop in mailbox: %language
		Optional arguments
		Argument A: _____
		Argument B: _____
		Argument C: _____
		After MSG_DROP
	Jump to Vector :	6 RC-Return ACD
	Comment:	_____
3		
0!setup		
1!Main		
2!MB Ac		
3!chang		
4!Trans		
>5!IUR a		
6!Spec		
7!conVE		
8!Sched		
9!Morni		
Please enter your comments.		
HELP	CHOICES	CLOSE
ENTER	CANCEL	REFRESH

Figure 5-111. MSG_DROP Action Form

Third Vector — RC-Return ACD

This last vector routes the caller (if they are still on hold) back to the switch to end the call.

The screenshot shows a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - December 22, 1996". The main menu on the left includes options like "1 Cust", ">Call Ue", "System", "System", "UNIX Sy", and "Exit". The "3 Edit" option is selected, leading to a screen titled "4 EDIT VECTOR NUMBER 6 STEPS".

At the top of the edit screen, it displays "Vector Name: RC-Return ACD" and "Vector Number: 6". Below this, the "Description: Rock Coast Returns Value to Switch" is shown.

Step	Action	Description
1	DATA_RTN	to PBX with *01
2	QUIT	Returns caller to the switch
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		

At the bottom of the screen, there is a prompt "Enter the vector name." followed by a row of buttons: HELP, INSERT, REMOVE, DEFINE, ENTER, CANCEL, REFRESH, and CHG-KEYS.

Figure 5-112. Finished RC-Return ACD Vector

Step Descriptions

1. DATA_RTN
Returns a hard-coded number 1 to the DEFINITY vector.
2. QUIT
Quits Care Center and returns control to the ECS R5/DEFINITY vector, which in turn drops the caller.

Sample Application #10: Callback Messaging

Business Situation

Continuing on with the work that was done in the “Sample Application #9: Estimated Wait Time Routing”, this sample application completes that exercise by showing the set up of the Callback Messaging Mailbox and all of its global settings.

To review, the Rock Coast Software Company would like to provide their callers with useful additional information while they are on hold, namely, the estimated time that the caller will have to wait to be connected to an agent. For example, Rock Coast would like to provide callers with an announcement such as “The Rock Coast Customer Service Department will be with you shortly. You should expect to hold for approximately...” (estimated wait time) “...minutes before being connected to an agent.” Rock Coast would like to provide their callers with additional options after they have received their Estimated Wait Time. They want to allow callers to continue to hold, to connect to a bulletin board application, or to use a fax response application.

More importantly, Rock Coast Software would like to automatically route callers to specific locations in their call center based on the result of the EWT calculation. For instance, Rock Coast would like to route callers who will have to wait more than 20 minutes to an overflow callback messaging mailbox. The callers will be “forced” to leave a message. This will be more user-friendly for the caller and less expensive for Rock Coast since they will not have to pay the 1-800 or Free Phone trunk charges to keep that caller on the line.

Other options for EWT routing include routing callers to IVR applications such as Automated Attendants, Bulletin Boards; routing callers to specific overflow extensions or departments; or using Custom Call Routing to route callers to a randomized dynamic list of promotional announcements and then onto a mailbox, IVR application, or department.

The lessons learned in earlier sample applications are background for this sample application.

Callflow Diagram

Use the callflow in the “Sample Application #9: Estimated Wait Time Routing” on page 5-139 as reference.

ECS R5/DEFINITY Vector

Use the DEFINITY vector in the "Sample Application #9: Estimated Wait Time Routing" on page 5-139 as reference.

Callback Messaging Administration

Callback messaging administration involves:

- Agent callback hours setup
- Mailbox global settings
- New mailbox setup

Agent Callback Hours Setup

This screen allows Rock Coast to set up the hours that agents will be available to return callback messages.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - December 23, 1996
1 Customer Assist Care Center
  Call Vector Configuration
  >System Administration
  System Monitor
  UNIX System
  Exit
2 System Administration
  >Callback Messaging Administration
  Conversant Administration
  Custom Call Routing Administration
  Report Generation
  Report Scheduling
  Speech Administration
  System Backup/Restore
  Variable Administration
3 Callback Messaging Administration
  Mailbox Administration
  Mailbox Global Settings
  >Agent Callback Hours
4 Agent Callback Hours
  Callback Hours (hours:minutes AM/PM)
  Start time      Stop time
SUN  12:00 AM    12:00 AM
MON  08:00 AM    05:00 PM
TUE  08:00 AM    05:00 PM
WED  08:00 AM    05:00 PM
THR  08:00 AM    05:00 PM
FRI  08:00 AM    05:00 PM
SAT  12:00 AM    12:00 AM
Enter AM or PM and press Return or the ENTER key.
HELP CHOICES CLOSE ENTER CANCEL REFRESH
  
```

Figure 5-113. Agent Callback Hours Form

Mailbox Global Settings

These screens allow Rock Coast to set up global parameters regarding all Callback Messaging Mailboxes such as what agents hear upon transcription and the scheduling options available to callers and agents. The important points are:

- Messages are delivered in one minute increments to agents.
- Messages are delivered to agents on channels 1-4 on their CONVERSANT.
- Agents must "Press 1" when a message is delivered to them before it will play.
- Segment numbers and all of the message header information play upon transcription.
- Callers have two confirmation chances when leaving message segments.
- Use a 12-hour clock.
- Callers and agents can schedule callbacks.
- The CONVERSANT "listens in" for 30 seconds while the agent gets connected to the caller before dropping off the line.

The screenshot shows a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - December 23, 1996". The main menu on the left lists several options, with "3 Callback Message" selected. The right pane displays the "Global Settings for All Message Drop Mailboxes" screen. This screen is divided into three sections: AGENT ACCESS, MESSAGE PLAYBACK, and CUSTOMER CALLBACK. Each section contains several settings with values entered in the input fields. At the bottom, there is a prompt to enter "AUTO" for monitoring and a row of function keys: HELP, CHOICES, CLOSE, ENTER, CANCEL, and REFRESH.

Section	Setting	Value
AGENT ACCESS	Channel access time	1
	Access channel(s)	1-4
	Force 'Press 1' for agent callback pickup	Yes
	MESSAGE PLAYBACK	
MESSAGE PLAYBACK	Speak transcription segment numbers	Yes
	Play message header information	A
	Number of confirmation chances	2
	Time format	12 hour clock
CUSTOMER CALLBACK	Allow agents to reschedule	Yes
	Scheduling options	
	Immediately	Yes
	Later today	Yes
	Later date	Yes
Callback conference time	30	
Allow agents to classify callbacks	Yes	

Enter "AUTO" to monitor constantly or minutes between tries in calling agents.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 5-114. Global Settings

New Mailbox Setup

This setup screen allows Rock Coast to set up individual parameters for an individual mailbox. Some of the highlighted settings below are:

- The security code on this mailbox is 192.
- The mailbox uses U.S. English.
- Messages are delivered to agents by dialing the internal VDN #20024.
- Dialing 9 is required to get an outside line to call back callers.
- The CONVERSANT is located in the United States, so the Country Code is set to 1.
- The CONVERSANT waits for 20 seconds to see if the agent picks up upon message delivery. If no agent picks up, delivery is retried every 1 minute.
- The message waiting lamp is not used.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - December 23, 1996
5 Edit Existing Mailbox

Mailbox name:   Rock Coast Mailbox      Mailbox ID:   11
Mailbox password: 192                  Mailbox priority: 0
Talkfile: 6105 US English

CALLBACK
Transcriber welcome phrase:
Welcome to the mailbox.                  1010
Agent access number: 20024              Treat as outside number? No
Outside line access code: 9              Country code: 1
Time to wait for answer: 20             Message retry interval: 1
Use Dial Pulse Recognition: No           Use Speech Recognition: No

NOTIFICATION AND ALARMS
Message Waiting Lamp extension:
Alarm if
  Message age exceeds   Minutes:  ___  Hours:  ___  Days:  ___
  Max number of messages exceeds:  ___
Forward messages into mailbox:  ___

Enter the mailbox name.
HELP  INSERT  REMOVE  DEFINE  ENTER  CANCEL  REFRESH  CHG-KEYS
  
```

Figure 5-115. Edit Existing Mailbox Form

Rock Coast wants to ask three questions: Caller's Name, their Phone Number, and their reason for calling.

Each of these questions goes in a separate data segment.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 23, 1996

5 Edit Existing Mailbox

Message closing phrase: Goodbye 1006

Segment	Type	Identity Tag
1	<u>Record</u>	Enter your name 1002
2	<u>Data</u>	
3	<u>Record</u>	Please state your problem. 1012
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Select the phrase tag to play after the final mailbox prompt.

HELP INSERT REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS

Figure 5-116. Edit Existing Mailbox: Data Segments Grid

LUCENT TECHNOLOGIES Customer Assist Care Center - December 23, 1996

5 Edit Existing Mailbox

Message closing phrase: Goodbye 1006

Segment	Type	Identity Tag
1	<u>Record</u>	Enter your name 1002
2	<u>Data</u>	
3	<u>Record</u>	Please state your problem. 1012
4		

6 Record configuration for mailbox 1010, segment 1

MESSAGE DROP OPTIONS:

Phrase tag: Enter your name 1002

Response limits: Minimum: 3 Maximum: 15

Recording quality: Low

Have caller confirm? No

Segment required to save message? No

TRANSCRIPTION OPTIONS:

Play back to transcriber? Yes

Select the phrase tag that the caller will hear.

HELP CHOICES CLOSE CANCEL REFRESH

Figure 5-117. Edit Existing Mailbox: Record Configuration for Data Segment 1

```

LUCENT TECHNOLOGIES Customer Assist Care Center - December 23, 1996
5      Edit Existing Mailbox
Message closing phrase:
Goodbye                                     1006

6      Data configuration for mailbox 1010, segment 2

MESSAGE DROP OPTIONS:
Phrase tag: Enter your phone number                                     1005
Response limits:      Minimum: 7   Maximum: 10
Have caller confirm?  Yes
Segment required to save message? Yes

TRANSCRIPTION OPTIONS:
Play back to transcriber? Yes
Display field?           None
Treat as phone field?    Yes Portion: Whole
Enable automatic launch? Yes Message treatment: Delete

INPUT OPTIONS:
Passed parameter?       No Argument:

Select the phrase tag that the caller will hear.
HELP CHOICES CLOSE CANCEL REFRESH
  
```

Figure 5-118. Edit Existing Mailbox: Record Configuration for Data Segment 2

```

LUCENT TECHNOLOGIES Customer Assist Care Center - December 23, 1996
5      Edit Existing Mailbox
Message closing phrase:
Goodbye                                     1006

Segment Type      Identity Tag
1      Record Enter your name                                     1002
2      Data Enter your phone number                               1005
3      Record Please state your problem.                         1012
4

6      Record configuration for mailbox 1010, segment 3

MESSAGE DROP OPTIONS:
Phrase tag: Please state your problem.                                     1012
Response limits:      Minimum: 3   Maximum: 300
Recording quality:    Low
Have caller confirm?  No
Segment required to save message? No

TRANSCRIPTION OPTIONS:
Play back to transcriber? Yes

Select the phrase tag that the caller will hear.
HELP CHOICES CLOSE CANCEL REFRESH
  
```

Figure 5-119. Edit Existing Mailbox: Record Configuration for Data Segment 3

CONVERSANT Vectors

Use the CONVERSANT vectors in the “Sample Application #9: Estimated Wait Time Routing” on page 5-139 as reference.

Sample Application #11: Bilingual Dynamic Announcements and Routing

Business Situation

The Rock Coast Software Company would like to provide their callers with the ability to choose the language for all of their prompts and announcements. Rock Coast Software has conducted surveys of its customer base and knows that 80% of its customers speak U.S. English and the other 20 percent speak Colombian Spanish. They would like to convert their Estimated Wait Time application ("Sample Application #7: Estimated Wait Time" on page 5-121, which was modified and modified to include EWT Routing in "Sample Application #9: Estimated Wait Time Routing" on page 5-139) to have the capability to change languages "on the fly."

The lessons learned in earlier sample applications are background for this sample application.

Callflow Diagram

The following three diagrams show the callflow for this sample application.

11. EWT ROUTING Bi-lingual

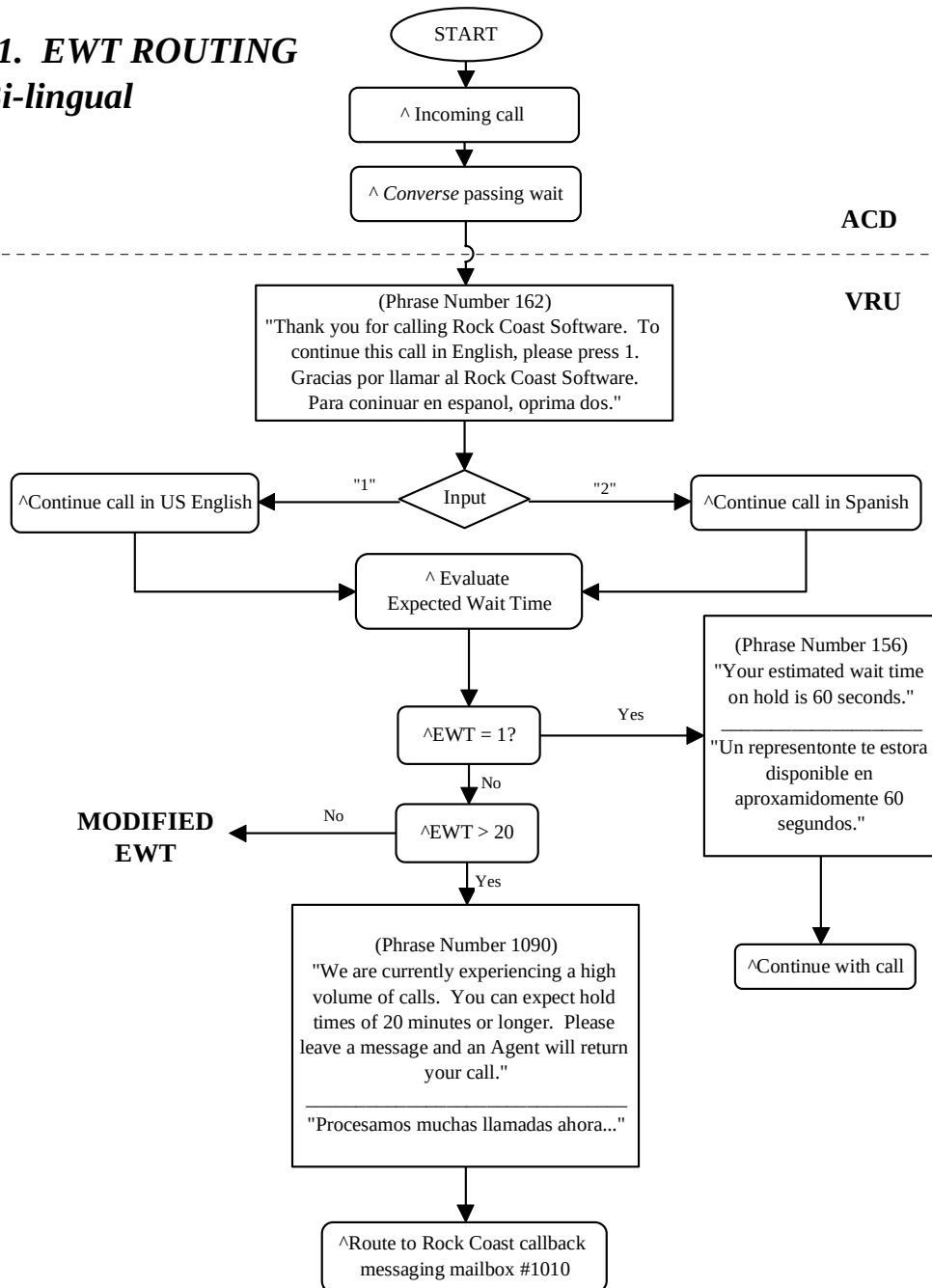


Figure 5-120. Bilingual Callflow 1

11. EWT ROUTING

Bi-lingual

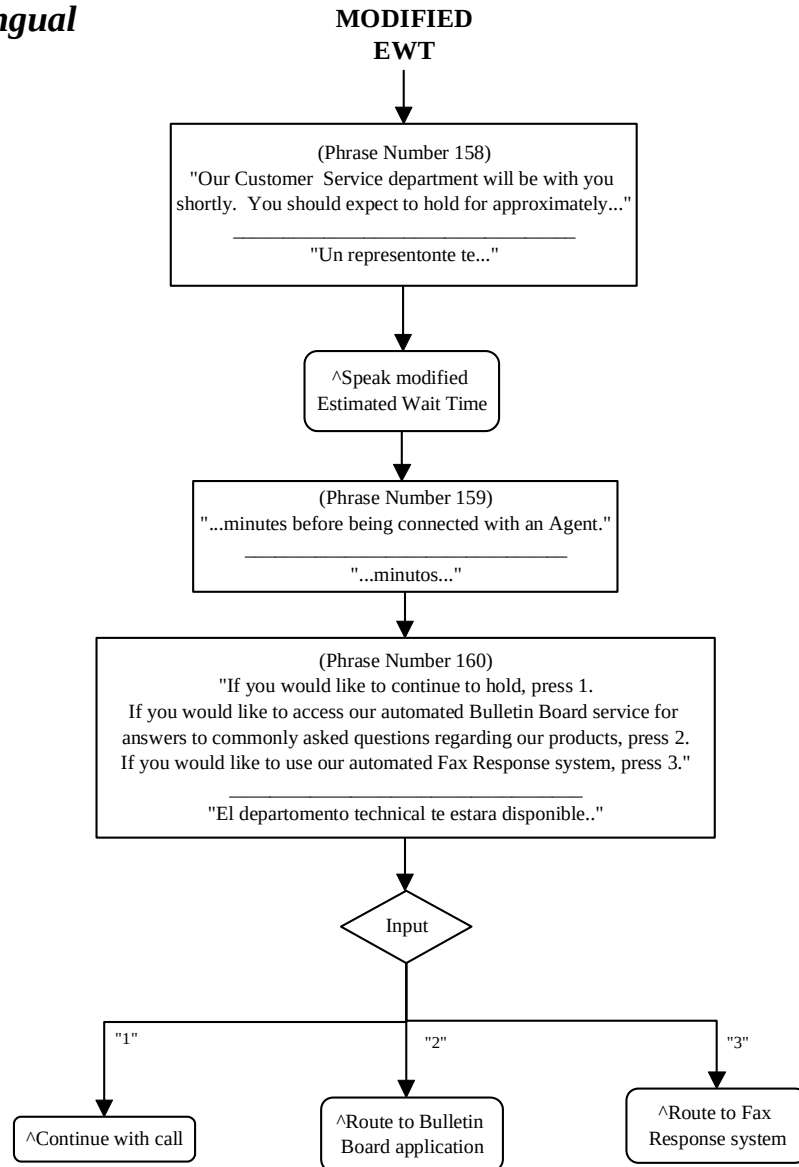


Figure 5-121. Bilingual Callflow 2

ESTIMATED WAIT TIME

Bi-lingual

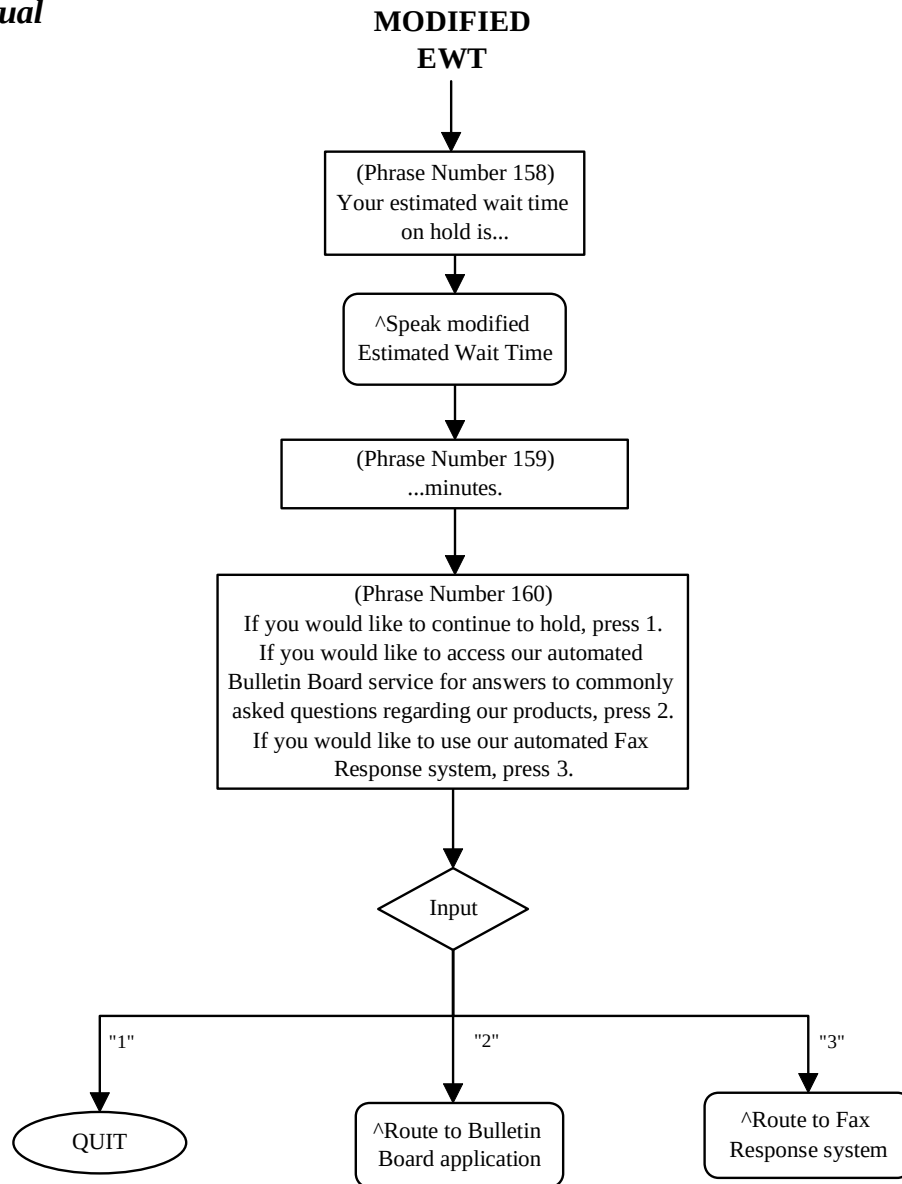


Figure 5-122. Bilingual Callflow 3

ECS R5/DEFINITY Vector

This sample application uses one DEFINITY vector. The vector uses a Converse vector step to pass a caller to the CONVERSANT and Care Center.

Assumptions: The CONVERSANT split is Split 3.

1. wait-time 2 secs hearing ringback
2. queue-to main split 1 pri m
3. wait-time 0 secs hearing music
4. converse-on split 2 pri m passing wait and none
5. collect 1digits after announce none
6. goto step 9 if digits = 1
7. wait-time 60 secs hearing music
8. goto step 7 if unconditionally
9. stop

Callback Messaging Administration

Callback messaging administration involves:

- Agent callback hours setup
- Mailbox global settings
- New mailbox setup

For instructions, see “Sample Application #10: Callback Messaging” on page 5-149.

Because this sample application is bilingual, you must set up two mailboxes, one for US English and one for Colombian Spanish. In this sample application, the mailbox numbers must be the same as the corresponding language code numbers. For example, the language code for Colombian Spanish is 5. The mailbox number for Colombian Spanish must also be 5.

CONVERSANT Speech Administration

In this sample application, you will need to record speech for phrase numbers 1090, 156, 158-160, and 162. See the callflow for the text of these phrases.

For information on how to create new vector phrases or how to record vector phrases, refer to “Sample Application #2: Standard Announcement” on page 5-25.

CONVERSANT Vectors

This sample application uses five CONVERSANT vectors:

- “First Vector — RC-BiLing Open” on page 5-160
- “Second Vector — RC-BiLing EWT” on page 5-163
- “Third Vector — RC-BiLing Menu” on page 5-164
- “Fourth Vector — RC-Msg Drop” on page 5-166
- “Fifth Vector — RC-Return ACD” on page 5-168

For each vector, the sample application first shows the steps in the finished vector and then describes each of the steps.

First Vector — RC-BiLing Open

This vector receives the estimated wait time from the switch, offers callers a choice of English or Columbian Spanish, changes the language to the caller's request, and routes callers to the next vector, “Second Vector — RC-BiLing EWT” on page 5-163.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 22, 1996			
1 Cust	4	EDIT VECTOR NUMBER 7 STEPS	
>Call Use		Vector Name:	RC-BiLing Open
System		Vector Number:	7
System		Description:	Rock Coast Bi-Lingual Opening Announce
UNIX Sy			
Exit			
	Step	Action	Description
	1	CONVERSE	collect 5 digits into %data1
	2	EWT	calculates the delay from %data1 into %ewt
3 Edit	3	MENU	U.S. Spanish Menu
0 setup	4	CHG_LANG	to %language
1 RC-BB	5	GOTO	Vector 8 unconditionally
2 RC-EW	6		
3 RC-Fa	7		
4 RC-EW	8		
5 RC-Ms	9		
6 RC-Re	10		
>7 RC-Bi	11		
8 RC-Bi	12		
	13		
	14		
Enter the vector name.			
HELP INSERT REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS			

Figure 5-123. Finished RC-BiLing Open Vector

Step Descriptions

1. CONVERSE

Collects the Expected Wait Time information from the switch and places it in the variable *%data1*. Since this information is passed to the CONVERSANT in seconds, this action step will collect five digits.

2. EWT

Converts the Expected Wait Time information received from the DEFINITY to an Estimated Wait Time that can be spoken back to the caller.

The action takes the value in the input variable *%data1*, rounds it up to the nearest minute, and places the output value in the variable *%ewt*. This output value is in minutes.

3. MENU

Speaks a single announcement with both U.S. English and Colombian Spanish speech. The announcement asks the caller to choose which language they would like to use.

If the caller presses 1 for U.S. English, then all prompts from that point on in that specific call will be spoken in U.S. English. If the caller presses 2 for Colombian Spanish, then all prompts from that point on in that specific call will be spoken in Colombian Spanish. Depending on this selection, the MENU action sets the value of the variable *%language* to the talkfile reference number that is used throughout the call.

4. CHG_LANG

Changes the current talkfile language for one specific caller to the talkfile number represented in the value in the variable *%language*. The results of this action affect only this specific caller and do not globally change the base language.



NOTE:

To globally change the base language of Care Center, refer to "Changing the Base Language" on page 4-54.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 22, 1996

1 Custd 4 EDIT VECTOR NUMBER 7 STEPS

>Call Use
System
System
UNIX Sy
Exit

Vector Name: RC-BiLing Open Vector Number: 7
Description: Rock Coast Bi-Linqual Opening Announce

Step	Action	Description
1	CONVERSE	collect 5 digits into %data1
2	EWI	calculates the delay from %data1 into %ewt
3	MENU	U.S. Spanish Menu
4	CHG_LANG	to %language
5	GOTO	Vector 8 unconditionally
6		
7		
8		
9		
10		

3 Edit

0!setup
1!RC-BB
2!RC-EW
3!RC-Fa
4!RC-EW
5!RC-Ms
6!RC-Re
>7!RC-Bi

5 Change Language Action, Step Number 4 for vector 7

Change language to: %language
Comment Changes language for this caller

Enter the language or a variable.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 5-124. CHG_LANG Action Form

5. GOTO

This action step unconditionally routes the caller to the EWT Announcement vector. See "Second Vector — RC-BiLing EWT" on page 5-163.

Second Vector — RC-BiLing EWT

This vector uses the estimated wait time to route callers to one of three different announcements depending on whether the estimated wait time is short (1 minute), standard (1-20 minutes), or long (greater than 20 minutes).

The screenshot shows a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - December 23, 1996". The main menu on the left includes options like "1 Cust", ">Call Use", "System", "System", "UNIX Sy", and "Exit". The "3 Edit" option is selected, leading to a screen titled "EDIT VECTOR NUMBER 8 STEPS". This screen displays the configuration for "Vector Name: RC-BiLing EWT" and "Vector Number: 8", with a description of "Rock Coast Bi-Lingual EWT Announcement". A table lists 14 steps with their actions and descriptions. At the bottom, there is a prompt "Enter the vector name." and a row of buttons: HELP, INSERT, REMOVE, DEFINE, ENTER, CANCEL, REFRESH, and CHG-KEYS.

Step	Action	Description
1	GOTO	Step 7 if %ewt = 1
2	GOTO	Step 9 if %ewt > 20
3	DYN_ANNOU	phrase in 158
4	SPEAK_NUM	in %ewt as Number
5	DYN_ANNOU	phrase in 159
6	GOTO	Vector 9 unconditionally
7	DYN_ANNOU	phrase in 156
8	QUIT	Returns call to the switch
9	DYN_ANNOU	phrase in 161
10	GOTO	Vector 5 unconditionally
11		
12		
13		
14		

Figure 5-125. Finished RC-BiLing EWT Vector

Step Descriptions

1. GOTO

If the value of the variable *%ewt* = 1, this step routes the caller to step 7, which speaks the short Estimated Wait Time announcement.

2. GOTO

If the value of the variable *%ewt* > 20, this step routes the caller to step 9, which speaks the long Estimated Wait Time announcement.

3. DYN_ANNOU

Speaks the first part of the standard Estimated Wait Time announcement in the language represented in the variable *%language*.

4. SPEAK_NUM

Speaks the Estimated Wait Time to the caller as a number in the language represented in the variable *%language*.

5. DYN_ANNOU

Speaks the last part of the standard Estimated Wait Time announcement in the language represented in the variable *%language*.

6. GOTO

Sends the caller to a vector that provides a menu of options in the requested language. See “Third Vector — RC-BiLing Menu” on page 5-164.

7. DYN_ANNOUN

Speaks the short Estimated Wait Time announcement in the language represented in the variable *%language*.

8. QUIT

Sends the caller back to the switch.

9. DYN_ANNOUN

Speaks the long Estimated Wait Time announcement in the language represented in the variable *%language*.

10. GOTO

Sends the caller to the “Fourth Vector — RC-Msg Drop” on page 5-166. That vector allows the caller to leave a message in the Rock Coast Mailbox.

Third Vector — RC-BiLing Menu

This vector provides a menu of options for callers in either US English or Colombian Spanish.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 23, 1996			
1 Cust	4	EDIT VECTOR NUMBER 9 STEPS	
>Call Use		Vector Name:	RC-BiLing Menu
System		Vector Number:	9
System		Description:	Rock Coast Bi-Lingual Menu
UNIX Sy			
Exit			
	Step	Action	Description
	1	GOTO	Step 3 if %language = 11
	2	GOTO	Step 5 if %language = 5
3 Edit	3	MENU	Press 1 to hold, 2 for bulletin board, 3 for fax
1!1:kj:	4	QUIT	Returns call to the switch
2!1:kjl	5	MENU	Press 1 to hold, 2 for bulletin board, 3 for fax
3!1:lk	6	QUIT	Returns call to the switch
4!adadf	7		
5!qrqwe	8		
6!nbvbn	9		
7!zcxvz	10		
8!RC-Bi	11		
>9!RC-Bi	12		
	13		
	14		
Enter the vector name.			
HELP INSERT REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS			

Figure 5-126. Finished RC-BiLing Menu Vector

Step Descriptions

1. GOTO

If *%language = 11*, this action routes the caller to step 3, which provides a menu using US English prompts.

2. GOTO

If *%language = 5*, this action routes the caller to step 5, which provides a menu using Colombian Spanish prompts.

3. MENU

Speaks a menu announcement in US English to callers to let them determine what they want to do. Callers can:

- Press 1 to continue to hold, which routes them to the QUIT action so that they return to the DEFINITY switch.
- Press 2 to connect to a bulletin board application, much like the one that was developed in the "Sample Application #5: Bulletin Boards" on page 5-67.
- Press 3 to connect to Rock Coast's Fax Response application.

 NOTE:

After pressing 3, the caller is sent to another vector (not shown in this sample application). To execute the fax system, see "Sample Application #4: Automated Attendants" on page 5-49.

4. QUIT

Ends the Customer Assist Care Center session and unconditionally sends the caller back to the switch.

5. MENU

Speaks a menu announcement in Colombian Spanish to callers to let them determine what they want to do. Callers can:

- Press 1 to continue to hold, which routes them to the QUIT action so that they return to the DEFINITY switch.
- Press 2 to connect to a bulletin board application, much like the one that was developed in the "Sample Application #5: Bulletin Boards" on page 5-67.
- Press 3 to connect to Rock Coast's Fax Response application.

6. QUIT

Ends the Customer Assist Care Center session and unconditionally sends the caller back to the switch.

Fourth Vector — RC-Msg Drop

This vector allows the caller to leave a message in the Rock Coast Mailbox, using the appropriate language, and then routes the caller to one last vector, which routes them back to the switch to end the call.

In this example, the caller is still in queue while they are leaving a message. In some instances, you may find it more appropriate to return the caller to the switch to dequeue them first, returning them to the CONVERSANT, and then allowing them to leave a message. In the “dequeuing” scenario, the overall DEFINITY split length is reduced, overall hold times are lowered, and there is no chance for a caller who is leaving a message to be “yanked” back to the DEFINITY if an agent becomes available. In this sample application however, Rock Coast wants callers with wait times over 20 minutes to stay in queue so they can be connected to an agent if one should become available.

The screenshot shows a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - January 15, 1997". The main window is titled "EDIT VECTOR NUMBER 5 STEPS". On the left is a menu with options: 1 Custd, >Call Use, System, System, UNIX Sy, Exit, 3, 0!setup, 1!Main, 2!MB Ac, 3!chang, 4!Trans, >5!IUR a, 6!Speec, 7!convE, 8!Sched, 9!Morni. The main area displays the vector configuration for "RC-Msg Drop" (Vector Number: 5). The description is "Rock Coast Message Drop Mailbox". Below this is a table with columns "Step", "Action", and "Description".

Step	Action	Description
1	MSG_DROP	into box %language
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		

At the bottom, it says "Enter the vector name." and there are buttons: HELP, INSERT, REMOVE, DEFINE, ENTER, CANCEL, REFRESH, and CHG-KEYS.

Figure 5-127. Finished RC-Msg Drop Vector

Step Descriptions

1. MSG_DROP

Lets the caller leave a message in a mailbox and then routes the caller to the “Fifth Vector — RC-Return ACD” on page 5-168.

Instead of specifying a mailbox number, the MSG_DROP action specifies the value of a variable, *%language*. This variable is either 11 for US English or 5 for Colombian Spanish. The sample application has two callback messaging mailboxes. Mailbox number 11 prompts callers in US English, while mailbox number 5 prompts callers in Colombian Spanish.

LUCENT TECHNOLOGIES Customer Assist Care Center - January 15, 1997			
4 EDIT VECTOR NUMBER 5 STEPS			
1 Cust	Vector Name: RC-Msg Drop Vector Number: 5		
>Call Ue	Description: Rock Coast Message Drop Mailbox		
System			
System			
UNIX Sy			
Exit			
	Step	Action Description	
	5	Message Drop Action, Step Number 1 for vector 5	
		MSG_DROP Action saves a multi-part message.	
3		Message Drop in mailbox: %language	
0!setup		Optional arguments	
1!Main		Argument A: _____	
2!MB Ac		Argument B: _____	
3!chang		Argument C: _____	
4!Trans			
>5!IUR a		After MSG_DROP	
6!Speec		Jump to Vector : 6 RC-Return ACD	
7!convE		Comment: _____	
8!Sched			
9!Morni			
Please enter your comments.			
HELP CHOICES CLOSE ENTER CANCEL REFRESH			

Figure 5-128. MSG_DROP Action Form

Fifth Vector — RC-Return ACD

This last vector routes the caller (if they are still on hold) back to the switch to end the call.

LUCENT TECHNOLOGIES Customer Assist Care Center - December 22, 1996

1 Cust **4** **EDIT VECTOR NUMBER 6 STEPS**

>Call Use
System
System
UNIX Sy
Exit

Vector Name: RC-Return ACD Vector Number: 6
Description: Rock Coast Returns Value to Switch

Step	Action	Description
1	DATA_RTN	to PBX with *01
2	QUIT	Returns caller to the switch
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		

3 Edit
0:setup
1:RC-BB
2:RC-EW
3:RC-Fa
4:RC-EW
5:RC-Ms
>6:RC-Re

Enter the vector name.

HELP INSERT REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS

Figure 5-129. Finished RC-Return ACD Vector

Step Descriptions

1. DATA_RTN
Returns a hard-coded number 1 to the DEFINITY vector.
2. QUIT
Quits Care Center and returns control to the ECS R5/DEFINITY vector, which in turn drops the caller.

Sample Application #12: Dynamic Port Allocation and Dynamic Allocation of Applications

Business Situation

The Rock Coast Software Company is getting close to finishing its entire call center application, but it is looking for ways to make its CONVERSANT more cost effective.

One option is to dynamically allocate ports on the CONVERSANT to run any application, as compared to statically allocating ports to just one application, such as a single announcement. A statically allocated port allows many callers to hear a single announcement. Dynamically allocated ports allow only one caller to access and hear a single announcement, but it can occur on any port. Rock Coast estimates that by dynamically allocating its ports, it can save on hardware expenses because it will not need as many ports, and at the same time dynamically provide better quality service overall to its customer base.

In the following example, Rock Coast creates a "Main Route" vector that will act as the dynamic port allocation engine to other vectors in the software. This Main Route vector routes any incoming caller's VDN number to specific vectors or specific applications outside of the Customer Assist Care Center application.

The lessons learned in earlier sample applications are background for this sample application.

ECS R5/DEFINITY Vector

This sample application uses one DEFINITY vector. The vector uses a Converse vector step to pass a caller to the CONVERSANT and Care Center.

Assumptions: The CONVERSANT split is Split 3.

1. wait time 2 secs hearing ringback
2. converse-on split 3 pri m passing vdn and none
3. collect 3 digits after announcement none
4. route-to digits with coverage n
5. stop

The sample application shows dynamic port allocation when the DEFINITY is passing VDN. However, dynamic port allocation can take place when any argument or hard-coded digit string is passed and evaluated. If the DEFINITY vector step passes nothing, however, no dynamic port allocation can take place.

CONVERSANT Vector

This sample application uses the RC-Main DPA vector to provide the dynamic port allocation for the other vectors in the application. These other vectors are not discussed.

LUCENT TECHNOLOGIES Customer Assist Care Center - October 31, 1996

4 EDIT VECTOR NUMBER 29 STEPS

Vector Name: RC-Main DPA Vector Number: 29
 Description: Rock Coast-Main Route-Dynamic Port Alloc

Step	Action	Description
1	CONVERSE	collect 3 digits into %data1
2	SWITCH	Dynamic Port Allocation
3	DYNAMIC	Dynamic Allocation of Applications
4	QUIT	
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		

Enter the vector name.

HELP INSERT REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS

Figure 5-130. Finished RC-Main DPA Vector

Step Descriptions

1. CONVERSE

Collects the VDN digits passed to the CONVERSANT from the DEFINITY switch and places them into the variable *%data1*.



NOTE:

In this example, the Customer Assist Care Center application is expecting to receive 3 digits. This number may be different depending on the application. There may also be a second CONVERSE step to receive a second argument passed from the DEFINITY.

2. SWITCH

Routes the caller to specific vectors in Care Center, depending on the VDN value in the variable *%data1*.

For example, if the VDN is 111, the SWITCH action routes the call to vector number 20, RC-AnnQueuePos.

If the VDN passed from the switch to the CONVERSANT does not appear in the SWITCH action, the Main Route vector continues to the step containing the DYNAMIC action.

LUCENT TECHNOLOGIES Customer Assist Care Center - October 31, 1996

4 EDIT VECTOR NUMBER 29 STEPS

5 SWITCH Action Step Number 2 for vector 29

SWITCH evaluates variables and routes matches to vectors

Comment: Dynamic Port Allocation

Variable: %data1 Operator: =

VALUE	VECTOR NUM	VECTOR NAME
111	20	RC-AnnQueuePos
222	21	RC-Opening Ann
333	22	RC-EWT Announc
444	23	RC-BB-Main
555	24	RC-Fax Respons
666	26	RC-EWT Mailbox
777	27	RC-SpchAdmin
888	28	RC-Transcript

Please enter your comments.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

1 >Call Ue
2 System
3 System
4 UNIX Sy
5 Exit

3
0!setup
1!Main
2!MB Ac
3!chang
4!Trans
5!IUR a
6!Speec
7!convE
8!Sched
9!Morni

Figure 5-131. SWITCH Action Form

3. DYNAMIC

Dynamically allocates another application, an automated employee payroll system called "agent," on the CONVERSANT to callers entering the Customer Assist Care Center application.

This action dynamically allocates the agent application if the VDN passed from the switch is either 999 or 000. In either case, the DYNAMIC action passes data (three arguments) out of the Customer Assist Care Center application and into the agent application sitting on the CONVERSANT. The action passes both hard-coded numbers such as 567 and variables such as *%data1*.

1

4

TECHNOLOGIES Customer Assist Care Center - October 31, 1996

EDIT VECTOR NUMBER 29 STEPS

>Call Use

System

Vector Name: RC-Main DPA

Vector Number: 29

5

DYNAMIC PORT ALLOCATION BLOCK 3 for vector 29

DYNAMIC ALLOCATION STARTS PROGRAMS FOR GIVEN VALUES

Comment: Dynamic Allocation of Applications

Variable: %data1

VALUE	PROGRAM	ARG1	ARG2	ARG3
999	agent	1234	567	890
000	agent	1234	%data1	890

Please enter your comments.

HELP

CHOICES

CLOSE

ENTER

CANCEL

REFRESH

Figure 5-132. Dynamic Port Allocation

4. QUIT

If any VDN is passed other than those specified in the previous SWITCH and DYNAMIC actions, the QUIT action returns the call to the DEFINITY switch.

Changing the Setup Vector

After Rock Coast creates the Main Route vector, it must change its setup vector so that every channel assigned to Care Center on the CONVERSANT points to this vector.

Figure 5-133 shows how a CHAN_ASN action in the setup vector would look after all the Care Center channels are assigned to the Main Route vector (vector 29).

LUCENT TECHNOLOGIES Customer Assist Care Center - October 31, 1996

1 **4** **EDIT VECTOR NUMBER 0 STEPS**

>Call Use
System
System
UNIX Sy
Exit

Vector Name: setup Vector Number: 0
Description: system **5 CHAN_ASN Action Step Number 3 for vector 0**

Step	Action	CHAN_ASN assigns vectors to channels
1	GLOBAL glob	Comment: assign channels to vectors
2	OFF_HOOK answ	
3	CHAN_ASN assi	
4	CHAN_ASN assi	
5	CHAN_ASN assi	
6	CHAN_ASN assi	
7	QUIT if c	
8		
9		
10		
11		
12		
13		
14		

CHANNEL	VECTOR	NAME
32	29	RC-Main DPA
33	29	RC-Main DPA
34	29	RC-Main DPA
35	29	RC-Main DPA
36	29	RC-Main DPA
0	29	RC-Main DPA
1	29	RC-Main DPA
2	29	RC-Main DPA
8	29	RC-Main DPA
9	29	RC-Main DPA
10	29	RC-Main DPA

Please enter your comments.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 5-133. CHAN_ASN Action Form

Sample Application #13: Scheduling Events in a Call Center

Business Situation

The Rock Coast Software Company would now like to create a way to give its customers specific announcements during the December holiday season as well as specific announcements during a weekend. Rock Coast can easily do this by using Care Center. This sample application modifies the dynamic port allocation vector created in the previous section.

The lessons learned in earlier sample applications are background for this sample application.

ECS R5/DEFINITY Vector

This sample application uses one DEFINITY vector. The vector uses a Converse vector step to pass a caller to the CONVERSANT and Care Center.

Assumption: The CONVERSANT split is Split 3.

1. wait-time 2 secs hearing ringback
2. converse-on split 3 pri m passing vdn and none
3. collect 3 digits after announcement none
4. route-to digits with coverage n
5. stop

CONVERSANT Vectors

This sample application illustrates three CONVERSANT vectors:

- "First Vector — RC-Main DPA" on page 5-176
- "Second Vector — RC-Holiday" on page 5-178
- "Third Vector — RC-Weekend" on page 5-179

Each of these vectors provides dynamic port allocation for other vectors in the application. These other vectors are not discussed.

First Vector — RC-Main DPA

This vector receives the VDN from the switch, routes callers to different vectors based on time and date, and provides dynamic allocation of ports and applications.

LUCENT TECHNOLOGIES Customer Assist Care Center - October 31, 1996

4 EDIT VECTOR NUMBER 29 STEPS

Vector Name: RC-Main DPA Vector Number: 29
Description: Rock Coast-Main Route-Dynamic Port Alloc

Step	Action	Description
1	CONVERSE	collect 3 digits into %data1
2	SCHEDULE	Holiday and Weekend Hours Announce
3	SWITCH	Dynamic Port Allocation
4	DYNAMIC	Dynamic Allocation of Applications
5	QUIT	
6		
7		
8		
9		
10		
11		
12		
13		
14		

Enter the vector name.

HELP INSERT REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS

Figure 5-134. Finished RC-Main DPA Vector

Step Descriptions

1. CONVERSE

Receives the 3 VDN digits passed to the CONVERSANT from the DEFINITY switch and places them into the variable *%data1*.

2. SCHEDULE

Routes callers to different vectors based on a time schedule.

In this example, the SCHEDULE action routes callers to one vector ("Second Vector — RC-Holiday" on page 5-178) in the month of December and to another vector ("Third Vector — RC-Weekend" on page 5-179) on weekends.

During the week (Monday through Friday) from January through November, processing continues in the current vector.



NOTE:

Create the SCHEDULE action with the "extreme" cases first and the less extreme cases later. In the example, the holiday schedule is first because it takes precedence over the weekend schedule in December. The asterisks shown in the figure are wild cards that

represent “any” or “all.” For example, an asterisk in the year column represents all years.

LUCENT TECHNOLOGIES Customer Assist Care Center - October 31, 1996									
EDIT VECTOR NUMBER 29 STEPS									
1	4	Vector Na	5	SCHEDULE Action Step Number 2 for vector 29					
>Call Ue		Descripti		SCHEDULE CHANGES VECTORS BY TIME					
System				Comment: <u>Holiday and Weekend Hours Announce</u>					
System									
UNIX Sy									
Exit									
		Step	Ac						
		1	CO						
		2	SC						
		3	SW						
3		4	DY	Start/	HR:MN	Day	Month	Year	GOTO
0!setup		5	QU	During	*	*	Dec	*	30
1!Main		6		Start	*	*	Sat	*	31
2!MB Ac		7		Start	*	*	Sun	*	31
3!chang		8							
4!Trans		9							
5!IUR a		10							
6!Speec		11							
7!conuE		12							
8!Sched		13							
9!Morni		14							
10!Afte									
Please enter your comments.									
HELP CHOICES CLOSE ENTER CANCEL REFRESH									

Figure 5-135. SCHEDULE Action Form

3. SWITCH

Routes the caller to specific vectors in Care Center, depending on the VDN value in the variable `%data1`.

For examples, see the CONVERSANT vector in “Sample Application #12: Dynamic Port Allocation and Dynamic Allocation of Applications” on page 5-169.

4. DYNAMIC

Dynamically allocates another application on the CONVERSANT to callers entering the Customer Assist Care Center application.

For an example, see the CONVERSANT vector in “Sample Application #12: Dynamic Port Allocation and Dynamic Allocation of Applications” on page 5-169.

5. QUIT

If any VDN is passed other than those specified in the SWITCH and DYNAMIC actions, the QUIT action returns the call to the DEFINITY switch.

Second Vector — RC-Holiday

This vector plays a holiday announcement before routing callers.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - October 31, 1996
1 4 EDIT VECTOR NUMBER 30 STEPS
>Call Use Vector Name: RC-Holiday Vector Number: 30
System Description: Rock Coast December Holiday Vector
System
UNIX Sy
Exit

Step Action Description
1 ANNOUNCE Rock Coast December Holiday Welcome Greeting
2 SWITCH Dynamic Port Allocation
3 DYNAMIC Dynamic Allocation of Applications
4 QUIT
5
6
7
8
9
10
11
12
13
14

0!setup
1!Main
2!MB Ac
3!chang
4!Trans
5!IUR a
6!Speec
7!conve
8!Sched
9!Morni
10!Afte

Enter the vector name.
HELP INSERT REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS
  
```

Figure 5-136. Finished RC-Holiday Vector

Step Descriptions

1. ANNOUNCE

Plays the holiday announcement.

2. SWITCH

Routes the caller to specific vectors in Care Center, depending on the VDN value in the variable *%data1*.

3. DYNAMIC

Dynamically allocates another application on the CONVERSANT to callers entering the Customer Assist Care Center application.

4. QUIT

If any VDN is passed other than those specified in the SWITCH and DYNAMIC actions, the QUIT action returns the call to the DEFINITY switch.

Third Vector — RC-Weekend

This vector plays a weekend announcement before routing callers.

The screenshot shows a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - October 31, 1996". The main menu on the left includes options like ">Call Use", "System", "UNIX Sy", and "Exit". The selected option is "4", which leads to the "EDIT VECTOR NUMBER 31 STEPS" screen. This screen displays the vector's name as "RC-Weekend" and its description as "Rock Coast Weekend Announcement". Below this, a table lists the steps and actions for the vector:

Step	Action	Description
1	ANNOUNCE	Rock Coast Weekend Announcement
2	SWITCH	Dynamic Port Allocation
3	DYNAMIC	Dynamic Allocation of Applications
4	QUIT	
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		

Below the table, there is a prompt "Enter the vector name." and a row of buttons: HELP, INSERT, REMOVE, DEFINE, ENTER, CANCEL, REFRESH, and CHG-KEYS.

Figure 5-137. Finished RC-Weekend Vector

Step Descriptions

1. ANNOUNCE
Plays the weekend announcement.
2. SWITCH
Routes the caller to specific vectors in Care Center, depending on the VDN value in the variable *%data1*.
3. DYNAMIC
Dynamically allocates another application on the CONVERSANT to callers entering the Customer Assist Care Center application.
4. QUIT
If any VDN is passed other than those specified in the SWITCH and DYNAMIC actions, the QUIT action returns the call to the DEFINITY switch.

Changing the Setup Vector

After Rock Coast creates its Main Route vector, it must change its setup vector so that every channel assigned to Care Center on the CONVERSANT points to this vector.

Figure 5-138 shows how a CHAN_ASN action in the setup vector would look after all the Care Center channels are assigned to the Main Route vector (vector 29).

LUCENT TECHNOLOGIES Customer Assist Care Center - October 31, 1996
 1 4 EDIT VECTOR NUMBER 0 STEPS
 >Call Use Vector Name: setup Vector Number: 0
 System Description: system 5 CHAN_ASN Action Step Number 3 for vector 0
 System UNIX Sy
 Exit

Step	Action	CHAN_ASN assigns vectors to channels	Comment: assign channels to vectors
1	GLOBAL glob		
2	OFF_HOOK answ		
3	CHAN_ASN assi	32 29	RC-Main DPA
4	CHAN_ASN assi	33 29	RC-Main DPA
5	CHAN_ASN assi	34 29	RC-Main DPA
6	CHAN_ASN assi	35 29	RC-Main DPA
7	QUIT if c	36 29	RC-Main DPA
8			
9		0 29	RC-Main DPA
10		1 29	RC-Main DPA
11		2 29	RC-Main DPA
12		8 29	RC-Main DPA
13		9 29	RC-Main DPA
14		10 29	RC-Main DPA

Please enter your comments.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 5-138. CHAN_ASN Action Form

Sample Application #14: Reporting and Hang Up Actions

Business Situation

The Rock Coast Software Company feels that its call center applications are almost complete, but it wants to add some reporting features to its call center. It wants to add features such as monitoring the VDNs that are passed from the DEFINITY and also capturing the ANI of abandoned callers. Rock Coast also has the option of putting this ANI into a Callback Messaging Mailbox that could deliver the abandoned ANI to an agent for a prompt callback. This option provides Rock Coast with the utmost in service — automatically calling callers back who abandoned the line while waiting in queue.

The lessons learned in earlier sample applications are background for this sample application.

ECS R5/DEFINITY Vector

This sample application uses one DEFINITY vector. The vector uses a Converse vector step to pass a caller to the CONVERSANT and Care Center.

Assumptions: The CONVERSANT split is Split 3.

1. wait-time 2 secs hearing ringback
2. converse-on split 3 pri m passing vdn and ani
3. collect 3 digits after announcement none
4. route-to digits
5. stop

CONVERSANT Vectors

This sample application illustrates two CONVERSANT vectors:

- “First Vector — RC-Main DPA” on page 5-182
- “Second Vector — RC-Hang Up” on page 5-185

As in “Sample Application #13: Scheduling Events in a Call Center” on page 5-175, this sample application consists of many different vectors. It illustrates only the two vectors that show how to use the REPORT and HANG_ACT actions.

First Vector — RC-Main DPA

This vector receives the VDN and ANI from the switch, reports on the ANI, routes callers to different vectors based on time and date, and provides dynamic allocation of ports and applications.

OCENT TECHNOLOGIES Customer Assist Care Center - October 31, 1996

4 EDIT VECTOR NUMBER 29 STEPS

Vector Name: RC-Main DPA Vector Number: 29
 Description: Rock Coast-Main Route-Dynamic Port Alloc

Step	Action	Description
1	CONVERSE	collect 3 digits into %data1
2	CONVERSE	collect 10 digits into %ani
3	REPORT	on %data1
4	HANG_ACT	end with vector 32 (RC-Hang Up)
5	SCHEDULE	Holiday and Weekend Hours Announce
6	SWITCH	Dynamic Port Allocation
7	DYNAMIC	Dynamic Allocation of Applications
8	QUIT	
9		
10		
11		
12		
13		
14		

Enter the vector name.

HELP INSERT REMOVE DEFINE ENTER CANCEL REFRESH CHG-KEYS

Figure 5-139. Finished RC-Main DPA Vector

Step Descriptions

1. CONVERSE

Receives the 3 VDN digits passed to the CONVERSANT from the DEFINITY switch and places them into the variable *%data1*.

2. CONVERSE

Receives the 10 ANI digits passed to the CONVERSANT from the DEFINITY switch and places them into the variable *%ani*.

3. REPORT

Tells Care Center to report on the variable named *%data1*, which records the VDN being passed from the DEFINITY switch, every time this vector is invoked.

You can see these values by running an Event Detail Report. See "Event Detail Report" on page 4-94.

LUCENT TECHNOLOGIES Customer Assist Care Center - October 31, 1996

4 EDIT VECTOR NUMBER 29 STEPS

Vector Name: RC-Main DPA Vector Number: 29
Description: Rock Coast-Main Route-Dynamic Port Alloc

Step	Action	Description
1	<u>CONVERSE</u>	collect 3 digits into %data1
2	<u>CONVERSE</u>	collect 10 digits into %ani
3	<u>REPORT</u>	on %data1
4	<u>HANG_ACT</u>	end
5	<u>SCHEDULE</u>	Holi
6	<u>SWITCH</u>	Dyna
7	<u>DYNAMIC</u>	Dyna
8	<u>QUIT</u>	
9		
10		
11		
12		
13		
14		

5 REPORT Action Step Number 3 for vector 29

REPORT Action Step Stores Value of Variable

Variable to Report: %data1

Comment: Recording which UDN s are passed

Enter the variable name follow by the Return or ENTER key.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 5-140. REPORT Action Form

4. HANG_ACT

Tells Care Center to go to vector 32, RC-Hang Up, if the caller hangs up while in the CONVERSANT. See "Second Vector — RC-Hang Up" on page 5-185.

Because the HANG_ACT action is a global setting throughout the duration of a call, you need to include it only once. Typical places to include it are in the Main Route vector or the setup vector. The HANG_ACT action is valid for every call, no matter where the caller is in the CONVERSANT.

```

LUCENT TECHNOLOGIES Customer Assist Care Center - October 31, 1996
1 4 EDIT VECTOR NUMBER 29 STEPS
>Call Use Vector Name: RC-Main DPA Vector Number: 29
System Description: Rock Coast-Main Route-Dynamic Port Alloc
System
UNIX Sy
Exit

Step Action Description
1 CONVERSE collect 3 digits into %data1
2 CONVERSE collect 10 digits into %ani
3 REPORT on %data1

3 5 HANG_ACT Action Step Number 4 for vector 29
5

HANG_ACT Action Step specifies a vector number to go to after a HANGUP.
On HANGUP go to Vector Number: 32 Name: RC-Hang Up

Comment: If caller hangs up goto this vector

9|Morni 13
10|Afte 14

Enter the vector name follow by the Return or ENTER key.
HELP CHOICES CLOSE ENTER CANCEL REFRESH

```

Figure 5-141. HANG_ACT Action Form

5. SCHEDULE

Routes callers to different vectors based on a time schedule.

6. SWITCH

Routes callers to specific vectors in Care Center depending on the VDN value in the variable *%data1*.

7. DYNAMIC

Dynamically allocates another application on the CONVERSANT to callers entering the Customer Assist Care Center application.

8. QUIT

If any VDN is passed other than those specified in the SWITCH and DYNAMIC actions, the QUIT action returns the call to the DEFINITY switch.

Second Vector — RC-Hang Up

This vector reports on the value of the variable *%ani*, which will be useful for Rock Coast if it decides to call back the callers who have abandoned calls.

The company can either run an Event Detail Report, or it can route this ANI into a Callback Messaging mailbox to have agents automatically call back callers who abandoned calls.

The screenshot shows a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - October 31, 1996". The main menu on the left includes options like ">Call Use", "System", "UNIX Sy", and "Exit". The current screen is titled "EDIT VECTOR NUMBER 32 STEPS". It displays the vector name "RC-Hang Up" and vector number "32". The description is "Rock Coast Hang Up Vector". Below this is a table with columns "Step", "Action", and "Description". The table contains two rows: Step 1 with Action "REPORT" and Description "on %ani", and Step 2 with Action "QUIT". At the bottom, there is a prompt "Enter the vector name." and a row of buttons: "HELP", "INSERT", "REMOVE", "DEFINE", "ENTER", "CANCEL", "REFRESH", and "CHG-KEYS".

Step	Action	Description
1	REPORT	on %ani
2	QUIT	

Figure 5-142. Finished RC-HangUp Vector

Step Descriptions

1. REPORT

Tells Care Center to report on the variable named *%ani*, which records the ANI passed from the DEFINITY switch, every time this vector is invoked.

You can see these values by running an Event Detail Report. See "Event Detail Report" on page 4-94.

2. QUIT

Returns the call to the DEFINITY switch.

Sample Application #15: Speech Administration and Transcribing Messages

Business Situation

The Rock Coast Software Company can set up two quick utility vectors to help them with the process of creating its call center applications:

- A Speech Administration vector that allows agents or call center supervisors to call into the DEFINITY and be routed directly into Speech Administration to change or record phrases, deal with languages, etc.
- A Transcription vector that allows agents to call into the DEFINITY and be routed directly into transcribing messages in callback messaging mailboxes

The lessons learned in earlier sample applications are background for this sample application.

ECS R5/DEFINITY Vector

This sample application uses one DEFINITY vector. The vector uses a Converse vector step to pass a caller to the CONVERSANT and Care Center.

Assumptions: The CONVERSANT split is Split 3.

1. wait-time 2 secs hearing ringback
2. converse-on split 3 pri m passing none and none
3. stop

CONVERSANT Vectors

This sample application illustrates two CONVERSANT vectors:

- “First Vector — RC-SpchAdmn” on page 5-187
- “Second Vector — RC-Transcript” on page 5-188

First Vector — RC-SpchAdmn

This vector routes agents to the speech administration program to make changes to phrases in talkfiles.

The screenshot shows a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - October 31, 1996". The main window is titled "EDIT VECTOR NUMBER 27 STEPS". On the left is a menu with options: 1 Call Use, System, System, UNIX Sy, Exit, 3, 0|setup, 1|Main, 2|MB Ac, 3|chang, 4|Trans, 5|IUR a, 6|Spec, 7|conuE, 8|Sched, 9|Morni, 10|Afte. The main area displays the configuration for Vector 27:

Step	Action	Description
1	SPCH_ADMN	talkfile , phrase
2	QUIT	

Below the table, a pop-up window titled "5 SPCH_ADMN Action, Step Number 1 for vector 27" is visible. It contains the following text:

SPCH_ADMN Action starts the Speech Administration program.

Specify the talkfile: 6105

Specify the phrase number: _____

Comment: Allows callers to only change 6105

At the bottom of the terminal window are buttons: HELP, CHOICES, CLOSE, ENTER, CANCEL, REFRESH.

Figure 5-143. Finished RC-SpchAdmn Vector and SPCH_ADMN Action Form

Step Descriptions

1. SPCH_ADMN

Starts the speech administration program and allows agents or supervisors to make changes to speech phrases in talkfiles.

In Figure 5-143, agents or supervisors can make changes to all phrases in talkfile 6105.

In Figure 5-144, which shows different values for the SPCH_ADMN action, agents or supervisors can make changes only to phrase 1000 in talkfile 6105.



NOTE:

To allow agents or supervisors to make changes to all talkfiles, leave the talkfile field blank.

2. QUIT

Returns the call to the DEFINITY switch.

LUCENT TECHNOLOGIES Customer Assist Care Center - October 31, 1996

1 **4** **EDIT VECTOR NUMBER 27 STEPS**

Vector Name: RC-SpchAdmin Vector Number: 27
 Description: Rock Coast Speech Administration

Step	Action	Description
1	SPCH_ADMN	talkfile , phrase
2	QUIT	
3		
4	5 SPCH_ADMN Action. Step Number 1 for vector 27	
5	SPCH_ADMN Action starts the Speech Administration program.	
6		
7		
8	Specify the talkfile:	<u>6105</u>
9	Specify the phrase number:	<u>1000</u>
10	Comment: <u>Callers can only change phrase 1000</u>	
11		
12		
13		
14		

Enter the talkfile number followed by the Return or ENTER key.

HELP **CHOICES** **CLOSE** **ENTER** **CANCEL** **REFRESH**

Figure 5-144. SPCH_ADMN Action Form with Different Values

Second Vector — RC-Transcript

This vector provides agents and supervisors access to messages saved in callback messaging mailboxes.

LUCENT TECHNOLOGIES Customer Assist Care Center - October 31, 1996

1 **4** **EDIT VECTOR NUMBER 28 STEPS**

Vector Name: RC-Transcript Vector Number: 28
 Description: Rock Coast Callback Messaging Transcript

Step	Action	Description
1	TRANSCRIBE	messages from box
2	QUIT	
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		

Enter the vector name.

HELP **INSERT** **REMOVE** **DEFINE** **ENTER** **CANCEL** **REFRESH** **CHG-KEYS**

Figure 5-145. Finished RC-Transcript Vector

Step Descriptions

1. TRANSCRIBE

Starts the transcription program and allows agents or supervisors to transcribe messages.

In Figure 5-146, agents or supervisors can transcribe messages from all mailboxes (because the Transcribe messages from mailbox field is blank).

In Figure 5-147, which shows different values for the TRANSCRIBE action, agents or supervisors can transcribe messages only from mailbox 1.

The screenshot shows a terminal window titled "LUCENT TECHNOLOGIES Customer Assist Care Center - October 31, 1996". The main window is titled "EDIT VECTOR NUMBER 28 STEPS". On the left is a menu with options: ">Call Use", "System", "System", "UNIX Sy", and "Exit". The main area displays vector information: "Vector Name: RC-Transcript" and "Vector Number: 28", followed by "Description: Rock Coast Callback Messaging Transcript". Below this is a table with three columns: "Step", "Action", and "Description". The table contains three rows: Step 1 with Action "TRANSCRIBE" and Description "messages from box"; Step 2 with Action "QUIT"; and Step 3 with an empty Action and Description. Below the table, a title bar reads "Transcribe Action, Step Number 1 for vector 28". The main text area contains the instruction "TRANSCRIBE Action starts the transcription program." followed by a prompt "Transcribe messages from mailbox: " and a blank line. Below that is a "Comment:" label followed by a blank line. At the bottom left, there is a small table with two rows: "9!Morni" with value "13" and "10!Afte" with value "14", each followed by a blank line. At the bottom, a prompt says "Enter the mailbox number or a variable followed by the Return or ENTER key." Below this prompt are several buttons: "HELP", "CHOICES", "CLOSE", a blank button, "ENTER", "CANCEL", "REFRESH", and another blank button.

Step	Action	Description
1	TRANSCRIBE	messages from box
2	QUIT	
3		

Transcribe Action, Step Number 1 for vector 28

TRANSCRIBE Action starts the transcription program.

Transcribe messages from mailbox: _____

Comment: _____

9!Morni	13	_____
10!Afte	14	_____

Enter the mailbox number or a variable followed by the Return or ENTER key.

HELP CHOICES CLOSE _____ ENTER CANCEL REFRESH _____

Figure 5-146. TRANSCRIBE Action Form

2. QUIT

Returns the call to the DEFINITY switch.

LUCENT TECHNOLOGIES Customer Assist Care Center - October 31, 1996

1 4 EDIT VECTOR NUMBER 28 STEPS

>Call Use
System Vector Name: RC-Transcript Vector Number: 28
System Description: Rock Coast Callback Messaging Transcript
UNIX Sy
Exit

Step	Action	Description
1	TRANSCRIBE	messages from box
2	QUIT	
3		

3
5 Transcribe Action, Step Number 1 for vector 28

TRANSCRIBE Action starts the transcription program.

Transcribe messages from mailbox: 1

Comment:

9|Morni 13
10|Afte 14

Please enter your comments.

HELP CHOICES CLOSE ENTER CANCEL REFRESH

Figure 5-147. TRANSCRIBE Action Form with Different Values

This chapter documents the steps necessary to solve any problems with Customer Assist Care Center. A problem will typically fall under one of three general areas in which functionality should be verified: the INTUITY CONVERSANT system, DEFINITY vectors, and Care Center.

Voice System Functionality

Table 6-1. Voice System Functionality

Problem	Cause and Possible Remedy
System is not taking calls. Channel rings no answer.	The voice system is not running. Verify functioning of analog stations on the PBX and the functioning of the voice board. Check to see that the call is being presented to the CONVERSANT system on the system monitor.

DEFINITY ECS R5 Switch and Its Vector Functionality

Table 6-2. Vector Functionality

Problem	Cause and Possible Remedy
System is not taking calls. Channel rings, no answer.	Either the DEFINITY vector process that routes calls to a CONVERSANT system has failed, or the DEFINITY vector is not passing the correct information. Verify this route-to process, and check the sanity of the DEFINITY vector.
Channel answers but hangs up.	The DEFINITY vector is not sending the correct value or information to the CONVERSANT system. Use the system monitor or trace utility to see what is passed to the CONVERSANT system. Try calling the CONVERSANT system and entering touch-tone digits manually.
	No vectors are defined and/or placed in service.
The CONVERSANT system cannot dial an agent, transfer a caller, or complete a conference call via line-side T1/E1.	Whenever the DEFINITY ECS R5 switch cannot respond with resources in time (during a period of high call volume, for example) the CONVERSANT's attempt will fail. Remedies include increasing the dial-tone delay or increasing the number of touch-tone receivers on the DEFINITY ECS R5 switch.

Customer Assist Care Center Functionality

Table 6-3. Customer Assist Care Center Functionality

Problem	Cause and Possible Remedy
Channel answers but hangs up.	The Customer Assist Care Center phrase that answers the call has not been recorded.
	The CONVERSE action on the CONVERSANT vector has not been administered correctly, or is not there.
	A CONVERSANT vector has not been assigned to a channel under CHAN_ASN on the setup vector.
	CONVERSANT vectors have not been placed in service.
	CONVERSANT vectors have been assigned to the wrong extensions under CHAN_ASN on the setup vector.
	Call is coming in on an active channel used for Message Waiting lamp notification, which requires a dedicated CONVERSANT channel.
Channel rings no answer.	The voice system is not running. The application ccc has not been assigned to a voice channel, or startup service is not blank.
	Make sure the vectDIP and vrptDIP processes are in the process table. Reinstalling Platform Runtime may be necessary. Contact your Lucent Technologies support representative.
A change made to a vector is not there.	The change was not saved and/or placed in service.
The system could not execute a program.	The program is no longer a valid program.
	The program is not a Script Builder or TSM program.
The system could not execute Customer Assist Care Center from another program.	Vector not set up correctly for the channel executing Customer Assist Care Center. Check CHAN_ASN to ensure that a vector is mapped to the channel.
The system could not execute Customer Assist Care Center from another program for a specified vector.	Vector does not exist in Customer Assist Care Center or is improperly set up.
	EXECUTE action in Script Builder is missing an argument for the vector to pass to Customer Assist Care Center.

Continued on next page

Platform Management

Table 6-4. Platform Management

Problem	Cause and Possible Remedy
Incorrect phrase played.	Restored speech overwrote the correct phrase.
	Wrong phrase selected. Check the ANNOUNCE action to ensure that the correct phrase has been selected.
	Phrase not installed when rerecorded. Listen to the selected phrase in Speech Administration to ensure that the proper phrase corresponds. If not, rerecord and be sure to install the phrase using *[3]. The system is playing a phrase from the wrong language talkfile.
No phrase played.	Restored speech overwrote the phrase; the system is playing a phrase from the wrong language talkfile.
Phrase tag disappeared.	Restored speech overwrote the phrase.
Anticipated delay announcement not spoken.	Switch not passing queue position. Check DEFINITY vectors to ensure that a Converse vector step is defined and passing the correct information.
	Variable for the CONVERSANT action not defined. Check the CONVERSANT action to be sure you have selected a variable in which to load queue position.
	Variable for queue position on CONVERSANT platform does not match that used for ADA_CALC. Check both actions to be sure the same variable has been selected.
	ADA_CALC action missing from vector series.
	SPEAK_NUM action missing from vector series. Check your vectors to make sure that this action is defined, and the variable corresponding to the ADA_CALC result field is selected.
	Elements not defined for ADA_CALC action, such as average call duration, variables for queue position and result, or number of agents staffed is at zero and no "no agents staffed" contingency message is defined.
Expected wait time not spoken.	Switch not passing EWT. Check DEFINITY vectors to ensure that a Converse vector step is defined and passing the correct information.

Continued on next page

Table 6-4. Platform — Continued Management

Problem	Cause and Possible Remedy
Expected wait time not spoken.	Variable for the CONVERSANT action not defined. Check the CONVERSANT action to be sure you have selected a variable in which to load EWT.
	Variable for EWT in CONVERSE action on CONVERSANT platform does not match that used for EWT action. Check both actions to be sure the same variable has been selected.
	SPEAK_NUM action missing from vector series. Check your vectors to make sure that this action is defined, and the variable corresponding to the EWT Action output field is selected.
Incorrect delay announcement spoken (wait time consistently low).	CONVERSE action set to collect too few digits on the Care Center platform package. Check the CONVERSE action to make sure the Number of digits to collect field allows for the greatest possible number of digits to accept from the PBX.
Caller's queue position not spoken.	Switch is not passing queue position. Check DEFINITY vectors to ensure that a Converse vector step is defined and passing the correct information.
	Variable for the CONVERSE action is not defined. Check your CONVERSANT vectors to ensure that you have selected and defined a CONVERSE action and variable to load.
	Variable for queue position on CONVERSANT platform does not match that used for SPEAK_NUM.
Caller hears “no agents staffed” message at a time when agents are staffed.	The table for ADA_CALC is incorrectly set up for that day and time. Return to the ADA_CALC action to ensure that all staffed times hold a value.
	The clock on the CONVERSANT is wrong.
	The wrong phrase is assigned to ANNOUNCE for Anticipated Delay. Check the CONVERSANT action to ensure that the correct phrase has been selected.
Vector size warning message.	The vector size exceeds the maximum size allowed for software. This is likely to occur if you attempt to add many actions to a vector containing ADA_CALC or SCHEDULE. Utilize a GOTO step to define actions and continue CONVERSANT vector processing on a subsequent CONVERSANT vector.

Continued on next page

Table 6-4. Platform — Continued Management

Problem	Cause and Possible Remedy
Speech administration not calling your telephone when you select LAUNCH.	The channel selected during the execution of the DIAL step is busy.
	Invalid channel selected. Check the DIAL step of Speech Administration to ensure that you are using a channel assigned for the CONVERSANT system.
	Channel is disabled for soft_srz. Check your CONVERSANT manual for information about enabling channels.
	Incorrect extension or telephone number defined. Check the DIAL step in Speech Administration to ensure that you have defined the correct telephone number or extension.
Speech administration calls but does not acknowledge answer.	You did not activate Speech administration. The utility is touch-tone activated. Press "1" when answering phone.
Speech administration calls but does not accept touch tones.	Channel is configured as standard announcement channel on the DEFINITY ECS R5. Do not call out on standard announcement ports.
Speech administration won't let you record short phrases.	The minimum phrase length for recorded speech is one second. Certain numbers and short phrases may not normally be that length; stretch phrases to fill the one-second minimum.
Unable to create a vector or a template vector.	Attempt exceeds the 256 vector limit. Delete old and unused vectors.
Unable to back up vectors or speech to diskette.	Diskette not formatted properly (UnixWare operating system or DOS) or is not formatted at all.
Dynamic port allocation application not executing applications.	Switch not passing the argument (VDN, digits, etc.) used for selecting applications. Check DEFINITY vectors to ensure that a Converse vector step is defined.
	CONVERSE, MENU, GET_DIGT, GET_SPCH, or GET_DIALP action needed to load the variable used for dynamic port allocation not defined. Check your CONVERSANT vectors to ensure that you have selected and defined a CONVERSE, MENU, GET_DIGT, GET_SPCH, or GET_DIALP action and variable that precedes the dynamic port allocation vector.

Continued on next page

Table 6-4. Platform — Continued Management

Problem	Cause and Possible Remedy
Dynamic port allocation application not executing applications.	CONVERSE action, MENU, GET_DIGT, GET_SPCH, or GET_DIALP variable used to collect the argument does not match that used for DYNAMIC EXECUTE. Check both actions to be sure the same variable has been selected.
	Executed application is missing or faulty.
New vector applications defined, but not heard.	New vectors have not been placed in service.
	Speech has not been recorded for the phrases that the vector applications use.
Converse vector step does not work with line-side T1/E1.	Settings on the DEFINITY ECS R5 are incorrect. Access the System-Parameters Features screen on the DEFINITY ECS R5 switch and set the Converse First and Second Data Delay parameters to 1.
Actions that are typed in and not selected from CHOICES ☐ not saved on the vector worksheet.	Typed in actions must be defined to be saved. Check that the vector contains actions that have been defined.
"Place New Vectors in Service" option gives vector update failed message.	The voice system is not running. Check that the voice system is running and that it is at run level "4."
Could not restore vector database.	The database was backed up using the UnixWare operating system and the restore is from DOS or vice versa.
	The vector database was backed up in a previous version and must be restored using the option "Restore Data from Previous Version of Call Center."
Could not back up vector database, speech, mailbox configuration, or routing data.	There is no diskette in the drive.
Caller goes to an incorrect vector.	Error in the vector logic, such as a GOTO action to the wrong vector.
	A new vector database is placed in service and the vector the caller is to go to next is in the new vector database but is used for another purpose.

Continued on next page

Table 6-4. Platform — Continued Management

Problem	Cause and Possible Remedy
Caller is dropped unexpectedly during a call.	Error in the way the CONVERSANT vectors are set up. Check the end of every vector to ensure each one specifies where a call should go, especially when non-standard conditions are encountered.
	The voice system has been shut down, such as when mailbox configurations are restored.
	A new vector database is placed in service and the call is sent to a vector that no longer exists.
Wrong numbers spoken back in Speech Administration, ADA announcement or queue position.	Numbers rerecorded incorrectly in Speech Administration. Check all likely number phrases in standard Speech Administration to ensure that they contain speech. The language in effect is different than the expected one.
"Error-500 Message queue is busy" when launching call in Speech Administration	The CONVERSANT is going soft seizures on the channel and the message should clear up on it own. If not, contact a Lucent representative.
Incorrect phrase played for DYNAMIC ANNOUNCEMENT.	VDN passed not corresponding to the correct phrase. Check the mapping of PBX VDN passed and phrase numbers on the CONVERSANT platform. The language in effect is different than the expected one.
No phrase played for DYNAMIC ANNOUNCEMENT.	VDN passed not corresponding to a phrase. Check the mapping of PBX VDN passed and phrase numbers on the CONVERSANT platform.
	Phrase not installed when recorded. Listen to the selected phrase in Speech Administration to ensure that the proper phrase corresponds. If not, rerecord and be sure to install the phrase using *3.
	Switch not passing VDN. Check DEFINITY vectors to ensure that a Converse vector step is defined and passing the correct information.
	Variable for the CONVERSANT action not defined. Check DEFINITY vectors to ensure that a Converse vector step is defined.

Continued on next page

Table 6-4. Platform — Continued Management

Problem	Cause and Possible Remedy
Call Management System (CMS) reports show abandons for all calls using the TRANSFER action.	A call routed by means of the TRANSFER action will show as an abandon. Consider using the DATA_RTN action for routing through the DEFINITY ECS R5 switch instead.
Collect Digits step in DEFINITY vector does not appear to accept DATA_RTN digits.	Use a Wait step just before the Collect Digits step in the DEFINITY vector as a caution in case DEFINITY resources are busy.
Call is not routed to vector defined in CHAN_ASN.	Call is coming over a different channel. Verify using system monitor.
	Channel is assigned to multiple vectors in CHAN_ASN. The system will use the first definition and ignore the rest.
Scheduled events (as defined by the SCHEDULE action) don't start.	The SCHEDULE action processes events from top to bottom. A higher event has taken precedence.
Scheduled events (as defined by the SCHEDULE action) won't stop.	Use the "during" choice for events that last for a certain period.
	Define a subsequent start event to redirect the course of the SCHEDULE action.
Scheduled events stop prematurely.	Events that start for a given time period lasts through that time period until that time period cycles. For example, if an event is to start at hour 7 it will last until the hour resets to 0 at midnight.
Inbound calls collide with Outbound callback messaging and the inbound caller hears transcription scripts.	An empty vector database was placed in service.
	The OFF_HOOK action was deleted from the set up vector.
	Consider allocating channels to callback only and do not direct inbound calls to any or all of the agent access channels defined.

Continued on next page

Table 6-4. Platform — Continued Management

Problem	Cause and Possible Remedy
The vector database contains missing actions, configuration errors, or is otherwise corrupted.	Restore from previous runtime was executed before installation of Customer Assist Care Center was completed, or before new vectors were placed in service on a new system (meaning previous runtime database was blank.)

Continued on next page

Callback Messaging

Table 6-5. Callback Messaging

Problem	Cause and Possible Remedy
Prompts not playing for Callback Messaging.	Phrases have not been recorded. Listen for the selected phrase in Callback Messaging phrase administration to ensure that the phrase exists. If it does not, record and be sure to install the phrase using *3.
	Phrases have not been selected/defined for the mailbox. Check mailbox administration to be sure that the correct phrase has been selected.
Message segments are blank.	Field was not defined as "Required to Save Message," and the caller did not respond with an input.
	Field was not defined as "Required to Save Message," and the caller did not respond with at least the minimum defined input.
	A passed parameter is not sent (not available, not properly defined, etc.) and the segment does not include a prompt to collect the missing data.
Caller hears "We're sorry. That is an invalid mailbox."	Mailbox not defined. You must first create a mailbox and assign phrases in mailbox administration.
	Mailbox not selected by vector. Check that the MSG_DROP action in your CONVERSANT vector uses a valid mailbox number or a variable that contains a valid mailbox number.
Mailbox disappeared.	Mailbox configuration was overwritten during a restore.

Continued on next page

Table 6-5. Callback Messaging — Continued

Problem	Cause and Possible Remedy
Messages were lost.	Mailbox was removed.
	Mailbox configuration was overwritten during a restore.
	A message was forwarded at the same time a mailbox was deleted by the system administrator.
Some or all message segments cannot be retrieved from a mailbox.	Segments were inserted or deleted from a mailbox containing existing messages.
Message Waiting lamp is not lit although messages await.	Message Waiting lamp extension missing or incorrect. On the CONVERSANT system, check this value on the Mailbox Definition form; ensure that it corresponds to the extension of the agent to notify of new messages.
	Another program (for example, INTUITY AUDIX) has illuminated the lamp.
Announcement not played prior to mailbox information for automatic agent access transcription.	Phrases have not been recorded. Listen for the selected phrase in callback messaging phrase administration to ensure that the phrase exists. If it does not, record and be sure to install the phrase using * (3).
	Phrase not installed when rerecorded. Listen for the selected phrase in Speech Administration to ensure that the proper phrase corresponds. If not, rerecord and be sure to install the phrase using * (3).
	Phrase not assigned. Check mailbox administration to be sure that a phrase has been selected.
Agent callback not working.	A working channel has not been assigned for callback.
	The channel used to call agents is disabled for soft_srz. Refer to your CONVERSANT manual for information about enabling channels.
	The channel assigned for callback is busy or has been set up as an announcement station on the DEFINITY ECS R5 switch.
	Incorrect agent extension or VDN defined. Check mailbox administration to ensure that a valid VDN or extension for agent access has been defined.
	Make sure the callback dip and the MsgDrp dip are in the process table.

Continued on next page

Table 6-5. Callback Messaging — Continued

Problem	Cause and Possible Remedy
Agent callback not working.	The retry interval agent or callback hours have not been administered correctly.
	The VDN threshold on the PBX is not allowing messages to be sent. Check the threshold level set on the DEFINITY ECS R5 switch.
	Channels are busy with other calls. Try dedicating a channel to agent callback.
	Calls intended for agents are being answered in a queue with a recorded announcement or music on hold.
Agent callback not working for a specific mailbox.	No new messages exist in the mailbox.
	No agent access number is specified for the mailbox.
	Messages are being forwarded to another mailbox.
Messages are not being delivered quickly enough to agents.	Agent access channels are busy with incoming calls.
	Insufficient agent access channels exist to handle the callback volumes.
	Channel access time is set at too high of an interval.
Agents are bombarded with callback messages.	Channel access time is set on AUTO or on too low of an interval.
After reaching an answering machine, the agent cannot reach the Message menu.	Agents must disconnect from AUDIX or AUDIX Voice Power before they can access the After Callback menu. Press ✱ ✱ 9 to exit a mailbox; then press ✱ 9 9 to reenter the Message menu.
Message Waiting lamps, agent access, and automatic call launching do not work with line-side T1/E1.	Whenever the DEFINITY ECS R5 switch cannot respond with resources in time (during a period of high call volume, for example) Callback Messaging will fail. Increase the Dial Tone Delay parameter on the CONVERSANT system's digital protocol screen or increase the number of touch-tone receivers on the DEFINITY ECS R5 switch.
Parts of messages are not spoken back.	The Playback to Transcriber field is set to No .

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Table 6-5. Callback Messaging — Continued

Problem	Cause and Possible Remedy
Fragmented message received by agent in Callback Messaging.	Caller hung up during Message Drop. No resolution required.
Messages are not being kept even though callers leave them.	"Segment required to save message" segment is not being completed by the callers.
Customer Callback not working.	The mailbox does not include a data type segment with Treat as a phone field set to Yes .
	Outside line access code not specified or incorrect for this mailbox.
	The customer's telephone number is a long distance number and the system requires an accounting code for long distance calls.(See your Lucent Technologies representative for configuration).
	DEFINITY ECS R5 channel configuration is incorrect. Check to see that conference call transfer and outside line access are enabled.
	DEFINITY ECS R5 channel is restricted from making toll calls.
Automatic launch on phone numbers doesn't work.	Caller left an incomplete phone number in the data field.
	Customer Callback is not configured correctly.
Calls are not being saved or deleted after being launched for customer callback.	Callback conference time has not expired. Calls terminated before the conference time expires will revert to their original status.
Agent is permanently placed on soft hold when initiating outcall. Consequently, outcall fails.	ARS setting in DEFINITY ECS R5 dial plan set incorrectly. Must be set to "No." Dialing initial digit "1" not required. Retry interval should be reduced.
	"Message retry interval" for mailbox is set too low.
Messages are not being delivered to agents in a time equivalent to the estimated wait time.	Channel access time is not set to AUTO.

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Table 6-5. Callback Messaging — Continued

Problem	Cause and Possible Remedy
Messages are not being delivered to agents in a time equivalent to the estimated wait time.	There are insufficient agent access channels defined. As many channels are required as there are possible messages to be "queued" in order to achieve this service.
	The Time to wait for an agent is insufficient to queue messages for an available agent. The callback process is timing out.
	Consider setting mailboxes that require this service at the highest priority.
The same message is repeatedly sent to agents.	Callback attempt fails or is aborted. Try saving the message to retry later.
Data fields do not work with agent callback; displays are not filled.	Callers are not entering the field requested in the message.
	DEFINITY vector not set up properly with Collect and Route steps. Test the DEFINITY vector with a plain phone.
	There is no Call Classification circuit pack in the DEFINITY ECS R5 switch. Touch-tone recognition in the Collect step within a DEFINITY vector requires this circuit pack.
Important messages are being delivered for certain mailboxes but not for others.	Mailboxes have different priority settings. Mailboxes with higher priority will have all ready messages delivered to agents before delivering messages for mailboxes with lower priority.
Messages are getting backed up in a single mailbox.	Transcribe the messages in the mailbox.
	Add more callback channels.
	Send overflow messages to a forwarding mailbox.
Ready messages are sitting in a certain mailbox for too long.	Send old messages to a forwarding mailbox.
Callback does not occur when a caller schedules it.	Agents are busy with other calls.
	Agent hours are off when the callback is to occur.
Callback does not occur when a caller schedules it.	CONVERSANT callback channels are not available.

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Table 6-5. Callback Messaging — Continued

Problem	Cause and Possible Remedy
Callback does not occur when a caller schedules it.	Confusion exists over the time zone difference. Times are schedule for call center's local time, not the caller's time.
The phone number field (or other passed parameter) is not being automatically filled from ANI (or other variable) in callback message.	ANI (or other value) is not being sent with the call.
	The parameter is not defined properly in MSG_DROP and is therefore not being sent from the platform.
	The parameter is not defined properly in the data segment of the mailbox.

Continued on next page

Custom Call Routing

Table 6-6. Custom Call Routing

Problem	Cause and Possible Remedy
Application hangs up.	No match in the table and a "no match found" alternative is not defined. Check your CONVERSANT vector to ensure that a message or transfer pattern for "no match found" is included (for instance, transfer to an operator).
	Table is not populated. Check custom call routing administration to ensure that records exist in your table. If not, populate your table either from DOS-formatted diskette or from on-screen administration.
	Converse vector step not passing digits. Check DEFINITY vectors to ensure that a Converse vector step is defined and passing the correct information.
	Data return FAC code on CONVERSANT does not match the code on the DEFINITY switch.
	Use a Wait step just before the Collect Digits step in the DEFINITY vector as a caution in case DEFINITY resources are busy.

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Table 6-6. Custom Call Routing — Continued

Problem	Cause and Possible Remedy
Caller routed to the wrong destination.	Error in routing table data. Use add/delete records in custom call routing administration to check that the record in your table is defined correctly. If not, it may be changed via on-screen administration.
	The Collect Digits step in the DEFINITY switch is not properly assigned. Check DEFINITY administration to verify that the DEFINITY switch is routing to the destination's address digits, and not to the other parameter's digits passed by the same DATA_RTN command.
	DATA_RTN action is in wrong location of the CONVERSANT vector. The DATA_RTN command passing destination's address should correspond to the Collect Digits step immediately preceding the Route-To step in the DEFINITY vector. Check the switch and the Care Center platform package to verify.
Unable to load data to a routing table.	Not a DOS-formatted diskette. Table must be loaded from a DOS-formatted diskette.
	Wrong file or path specified.
	Table not created. Must create a routing table in custom call routing administration first.
	Incorrect delimiters used. Check the documentation and on-screen help for a list of valid options.

Continued on next page

System Administration

Table 6-7. System Administration

Problem	Cause and Possible Remedy
No data in reports—General	No calls were received during selected day.
	There are too many lines in the report to display.

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Table 6-7. System Administration — Continued

Problem	Cause and Possible Remedy
No data in reports—Call Event Detail	Activated vectors did not include a REPORT action.
No data in reports—Call Event Summary	Activated vectors did not include a REPORT action.
No data in reports—Message Log	No messages were left during selected day.
No data in reports—Traffic Report	Cannot report on current day's activity; reports only past days' activity.
Reports will not print.	Printer is not configured properly.
Printed reports jumbled.	Printer is not compatible.
Back up to diskette failed.	Diskette is incorrectly formatted.
More than 42 variables are included in the Event Detail and Event Count reports.	A variable was renamed in the time interval for which the report was run.
A previously valid variable is not valid as an entry in the Event Detail report.	Renamed or deleted variables are not recognized as valid. Choose 'all' in the event Detail report to retrieve data for a variable that was deleted or renamed in the current reporting interval.
AUDIT shows in invalid variable that you did not intend to create as a variable.	A % sign was erroneously entered before a value in one of the Action fields.
Restore from diskette failed.	Diskette was overwritten or damaged. Diskette is write-protected.
There may be insufficient free processes to administer this package warning message encountered at program startup.	Check the UNIX system's NPROC tunable parameter.
There may be too many files open to administer this package warning message encountered at program startup.	Check the UNIX system's NFILE tunable parameter.
There may be insufficient free i-nodes to administer this package warning message encountered at program startup.	Check the UNIX system's NINODE, NS5INODE, and NFILE tunable parameters to determine if they may be increased.

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Table 6-7. System Administration — Continued

Problem	Cause and Possible Remedy
There may be insufficient disk space under /usr to administer this package error encountered at program startup.	Delete unnecessary files from the disk. Consider adding disk storage.

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CONVERSANT Error Log Messages

The following error messages are for the four data interface processes (DIPs) that support Customer Assist Care Center. These messages are found in the CONVERSANT error log. See *INTUITY CONVERSANT System Version 6.0 Alarms and Log Messages*, 585-310-182, for information about the error log.

The message priorities and their definitions are:

- NOTICE
This is for information only.
- WARNING
There could be a problem that needs to be addressed.
- TROUBLE
There is probably a problem that needs to be addressed.
- CRITICAL
There is a problem that needs to be addressed immediately.

SOURCE: VCT_RPT

CCC002 -- -- --- WARNING: VSstartup failed.

- Message priority:
CCC002 - WARNING
- Description and effect:
The DIP was unable to start or post itself on the internal CONVERSANT bulletin board, making communication to the CONVERSANT impossible.
- Repair procedure:
 - Use the **kill** command to try to restart the DIP.
 - Reboot the system.

CCC003 -- -- --- TROUBLE: unknown mcont.

- Message priority:
CCC003 - TROUBLE
- Description and effect:
The DIP received an unknown message from an unknown source.
- Repair procedure:
Check that other applications are functioning correctly.

CCC002 -- -- --- WARNING: cannot send msg.

- Message priority:
CCC002 - WARNING
- Description and effect:
The DIP was unable to send a message back to TSM.
- Repair procedure:
 - Use the **kill** command to try to restart the DIP.
 - Reboot the system.

CCC001 -- -- --- NOTICE: Unknown morig.

- Message priority:
CCC001 - NOTICE
- Description and effect:
The DIP received a message from an unknown source.
- Repair procedure:
Notification only — no action necessary.

CCC003 -- -- --- TROUBLE: mesgsnd failed.

- Message priority:
CCC003 - TROUBLE
- Description and effect:
The DIP was unable to send a message back to TSM. The DIP is unable to function correctly.
- Repair procedure:
 - Use the **kill** command to try to restart the DIP.
 - Reboot the system.

CCC001 -- -- --- NOTICE: message reception failed.

- Message priority:
CCC001 - NOTICE
- Description and effect:
The DIP was unable to send a message back to TSM.
- Repair procedure:
 - Use the **kill** command to try to restart the DIP.
 - Reboot the system.

CCC001 -- -- --- NOTICE: clearing message off queue.

- Message priority:
CCC001 - NOTICE
- Description and effect:
On DIP start up, DIP clears any old messages off the queue.
- Repair procedure:
Notification only — no action necessary.

CCC001 -- -- --- NOTICE: Call number <number> is a duplicate.

- Message priority:
CCC001 - NOTICE
- Description and effect:
The system was reporting on a call number already used.
<number> is the call assigned to the call that has been already used.
- Repair procedure:
Check that the file **/usr/add-on/ccc/logs/current/log_stat** exists.

CCC001 -- -- --- NOTICE: Caller Xref <X_number> is = caller number.
<Curr_number>

- Message priority:
CCC001 - NOTICE
- Description and effect:
The system has a request to log a cross-referenced call (X number) that has an ID number that is later in sequence from the current call number <Curr_number>. This cross-reference number is probably invalid.

- Repair procedure:

Check that the:

- Platform runtime is passing the number to the executed application.
- Number is being read by the executed application.
- Executed application is passing the correct number back to the platform runtime.

SOURCE: VECTOR

CCC002 -- -- --- WARNING: VSstartup failed.

- Message priority:

CCC002 - WARNING

- Description and effect:

The DIP was unable to start or post itself on the internal CONVERSANT bulletin board, making communication to the CONVERSANT impossible.

- Repair procedure:

- Use the **kill** command to try to restart the DIP.
- Reboot the system.

CCC002 -- -- --- WARNING: cannot send msg.

- Message priority:

CCC002 - WARNING

- Description and effect:

The DIP was unable to send a message back to TSM.

- Repair procedure:

- Use the **kill** command to try to restart the DIP.
- Reboot the system.

CCC001 -- -- --- NOTICE: Unknown morig.

- Message priority:

CCC001 - NOTICE

- Description and effect:

The DIP received a message from an unknown source.

- Repair procedure:

Notification only — no action necessary.

CCC001 -- -- --- NOTICE: message send error.

- Message priority:
CCC001 - NOTICE
- Description and effect:
The DIP was unable to send a message back to TSM.
The DIP was unable to function correctly.
- Repair procedure:
 - Use the **kill** command to try to restart the DIP.
 - Reboot the system.

CCC001 -- -- --- NOTICE: message error.

- Message priority:
CCC001 - NOTICE
- Description and effect:
The DIP was unable to send a message back to TSM.
The DIP is unable to function correctly.
- Repair procedure:
 - Use the **kill** command to try to restart the DIP.
 - Reboot the system.

CCC001 -- -- --- NOTICE: clearing message off queue.

- Message priority:
CCC001 - NOTICE
- Description and effect:
On DIP startup, the DIP clears any old messages off the queue.
- Repair procedure:
Notification only — no action necessary.

CCC003 -- -- --- TROUBLE: vectDIP: VECTOR <vect num> out of range (0-255).

- Message priority:
CCC003 - TROUBLE
- Description and effect:
The vector requested in the runtime was out of the allowable range.

- Repair procedure:
Check vector references, especially variable references.
Use REPORT action to verify that the vector requested is in range.

CCC003 -- -- --- TROUBLE: vectDIP: STEP <step num> out of range (0-14).

- Message priority:
CCC003 - TROUBLE
- Description and effect:
The step number requested in the runtime was out of the allowable range.
- Repair procedure:
Check references to stops, especially variable references.
Use REPORT action to verify that the step requested is in range.

CCC003 -- -- --- TROUBLE: vectDIP: VECTOR <vector num> MISSING VECTOR

- Message priority:
CCC003 - TROUBLE
- Description and effect:
The vector requested in the runtime was not in the database.
- Repair procedure:
Check vector references, especially variable references.
Use REPORT action to verify that the vector requested is in range.

CCC003 -- -- --- TROUBLE: vectDIP: VECTOR <vect num> MISSING STEP (step_num).

- Message priority:
CCC003 - TROUBLE
- Description and effect:
The step <step num> requested in the vector <vector num> is not in the vector.
- Repair procedure:
Check GOTO action references to steps, especially variable references.
Use REPORT action to verify that the vector requested is in the vector.

CCC003 -- -- --- TROUBLE: variable: <variable name> not defined.

- Message priority:
CCC003 - TROUBLE

- Description and effect:

The variable <variable name> has not been defined in the current administration screen.

- Repair procedure:

Check the action and change references to the variable or add the variable name through variable administration.

CCC002 -- -- --- WARNING: vector <vector num> exceeds size limit of 1000 bytes.

- Message priority:

CCC002 - WARNING

- Description and effect:

The vector <vector num> in the vector database has total size in excess of 1000 bytes and cannot be processed correctly.

- Repair procedure:

Edit the vector and shorten or remove a step.

Save the vector and place in service

CCC002 -- -- --- WARNING: unable to allocate memory for vector.

- Message priority:

CCC002 - WARNING

- Description and effect:

When loading the vector database into the vector DIP, there was not enough memory available for storing the vector database.

- Repair procedure:

Check for malfunctioning programs or processes.

Reboot the system and try again.

CCC001-- -- -- NOTICE: reloading vector database.

- Message priority:

CCC001 - NOTICE

- Description and effect:

A new vector database has been placed in service.

- Repair procedure:

Notification only — no action necessary.

CCC001 -- -- --- NOTICE: no **log_stat** file.

- Message priority:
CCC001 - NOTICE
- Description and effect:
The file that stores the daily stats, **/usr/add-on/ccc/logs/current/log_stat**, is not in the directory. This is normal for the first call of the day.
- Repair procedure:
Notification only — no action necessary.

CCC003 -- -- --- TROUBLE: unknown mcont.

- Message priority:
CCC003 - TROUBLE
- Description and effect:
The DIP received an unknown message from an unknown source.
- Repair procedure:
Check that other applications are functioning correctly.

SOURCE: PHR_ADM

CCC003 -- -- --- TROUBLE: mesgsnd failed.

- Message priority:
CCC003 - TROUBLE
- Description and effect:
The DIP was unable to send a message back to TSM.
The DIP is unable to function correctly.
- Repair procedure:
 - Use the **kill** command to try to restart the phradmDIP.
 - Reboot the system.

CCC001 -- -- --- NOTICE: clearing message off queue.

- Message priority:
CCC001 - NOTICE
- Description and effect:
On DIP startup, DIP clears any old messages off the queue.
- Repair procedure:
Notification only — no action necessary.

CCC001-- -- -- NOTICE: VSstartup failed, new instance

- Message priority:
CCC0021 - NOTICE
- Description and effect:
On DIP startup, DIP was unable to start and is trying to start under a new instance number.
- Repair procedure:
Notification only — no action necessary.

CCC001 -- -- --- NOTICE: VSstartup failed.

- Message priority:
CCC0021 - NOTICE
- Description and effect:
On DIP startup, DIP was unable to start.
- Repair procedure:
If problems occur while recording or playing phrases, kill the DIP and restart the voice system.

CCC001 -- -- --- NOTICE: Unknown morig.

- Message priority:
CCC001 - NOTICE
- Description and effect:
The DIP received a message from an unknown source.
- Repair procedure:
Notification only — no action necessary.

CCC001 -- -- --- NOTICE: msgsend error

- Message priority:
CCC001 - NOTICE
- Description and effect:
The DIP was unable to send a message back to TSM.
- Repair procedure:
If problems occur while recording or playing phrases, kill the DIP and restart voice system.

SOURCE: MSG_DROP

CCC004 -- -- --- CRITICAL: invalid command line, usage is: <usage string>

- Message priority:
CCC004 - CRITICAL
- Description and effect:
The message drop DIP cannot start with the parameters specified.
- Repair procedure:
The inittab entry for starting the message drop DIP is incorrect. Rebuild the inittab by entering **mkittab** on the command line.

CCC004 -- -- --- CRITICAL: msgdrpDIP unable to open log: <file name>

- Message priority:
CCC004 - CRITICAL
- Description and effect:
At DIP startup, the DIP was unable to open the logfile <file name>.
- Repair procedure:
Check that the directory exists.
Try rebooting the system.

CCC004 -- -- --- CRITICAL: ERROR: VSstartup() error: <error phrase>

- Message priority:
CCC004 - CRITICAL
- Description and effect:
At DIP startup, there was a problem with starting or posting the DIP.
- Repair procedure:
Try rebooting the system.
Consult the CONVERSANT documentation for an explanation about the <error phrase>.

CCC001 -- -- --- NOTICE: starting DIP

- Message priority:
CCC001 - NOTICE
- Description and effect:
On DIP startup, DIP has successfully started and is posted on the internal CONVERSANT bulletin board, making communications possible.

- Repair procedure:
Notification only — no action necessary.

CCC001 -- -- --- NOTICE: Oracle login successful

- Message priority:
CCC001 - NOTICE
- Description and effect:
On DIP startup, DIP has successfully logged into the ORACLE database.
- Repair procedure:
Notification only — no action necessary.

CCC001 -- -- --- NOTICE: Callback Queue Key obtained

- Message priority:
CCC001 - NOTICE
- Description and effect:
On DIP startup, msgdrop DIP has successfully obtained the Queue key for the callbackDIP.
- Repair procedure:
Notification only — no action necessary.

CCC001 -- -- --- NOTICE: Param file loaded

- Message priority:
CCC001 - NOTICE
- Description and effect:
msgdrop DIP has successfully loaded the parameter file.
- Repair procedure:
Notification only — no action necessary.

CCC001 -- -- --- NOTICE: Global tables loaded

- Message priority:
CCC001 - NOTICE
- Description and effect:
msgdrop DIP has successfully loaded the global parameter table.
- Repair procedure:
Notification only — no action necessary.

CCC001 -- -- --- NOTICE: message array refreshed

- Message priority:
CCC001 - NOTICE
- Description and effect:
The array of ready messages awaiting agent callback has been refreshed.
- Repair procedure:
Notification only — no action necessary.

CCC001 -- -- --- NOTICE: <module>: Oracle error <error code>

- Message priority:
CCC001 - NOTICE
- Description and effect:
 - <module> identifies when in the sequence the problem occurred.
 - <error code> is the specific ORACLE error code associated with the message.

An ORACLE error code has occurred. Consult the ORACLE documentation for an explanation of the specific error code.
- Repair procedure:
Notification only — if notifications persist, the database could be corrupted.

CCC001 -- -- --- NOTICE: AUDIT UPDATE in <table> table <type> <count>

- Message priority:
CCC001 - NOTICE
- Description and effect:
The audit process has corrected a problem in the message database.
 - <table> - is the ORACLE table with the problem.
 - <type> - describes the type of problem fixed.
 - <count> - indicates the number of instances repaired.
- Repair procedure:
Notification only — no action necessary.

SOURCE: CALLBACK

CCC003 -- -- --- CRITICAL: Invalid command line, usage is: callbackDIP [-d | -i NUM_INSTANCES | -l LOG_SIZE | -t INTERVAL | -a AUDIT_CHAN | -x DEBUG_LEVEL]

- Message priority:
CCC003 - CRITICAL:
- Description and effect:
The callbackDIP program was executed with the wrong command line options.
The program will not run and agent callback will not be done.
- Repair procedure:
 1. Check if the last line in the **/etc/conf/init.d/spcallback** file is **z302:4:respawn:/usr/bin/vrs/callbackDIP >/tmp/CBlog 2>&1**.
 2. If not, edit the file so that this is the last line in the file. Then type **mkitab**.

CCC003 -- -- --- CRITICAL: CALLBACK: Unable to open log:
/usr/add-on/ccc/logs/callbackDIP

- Message priority:
CCC003 - CRITICAL
- Description and effect:
The callbackDIP program is unable to open a log file. The program will terminate and agent callback will not be done.
- Repair procedure:
Create the directory **/usr/add-on/ccc/logs** if it doesn't exist.

CCC003 -- -- --- CRITICAL: ERROR: VSStartup0 error:<VSStartup error message>

- Message priority:
CCC003 - CRITICAL
- Description and effect:
The callbackDIP program could not register itself with the CONVERSANT bulletin board. The program will terminate and agent callback will not be done.
- Repair procedure:
The repair procedure depends on the VSStartup error. Possible fixes to the problem include:
 - Stop and restart the voice system.
 - Reboot the machine.

CCC003 -- -- --- CRITICAL: CallbackDIP FATAL
0: getNextInterval : Terminated

- Message priority:

CCC003 - CRITICAL

- Description and effect:

The callbackDIP program could not access the system clock. There could be something wrong with the CONVERSANT's system clock. The program will terminate and agent callback will not be done.

- Repair procedure:

- Check that the system clock is okay.
- Stop and restart the voice system.

CCC003 -- -- --- CRITICAL: CallbackDIP FATAL
1000: Oracle login failed, will exit...

- Message priority:

CCC003 - CRITICAL

- Description and effect:

The callbackDIP program could not log into ORACLE using **username sti** with password **sti**. The program will terminate and agent callback will not be done.

- Repair procedure:

- Check that there is a user **sti** with password **sti** in the ORACLE database — if there isn't, the user must be added.
- Check that the ORACLE database is not corrupted.

CC003 -- -- --- CRITICAL: CallbackDIP FATAL
1006: Cannot read global table.

- Message priority:

CCC003 - CRITICAL

- Description and effect:

The callbackDIP program could not read from the ORACLE table MBGLOBAL

The program will terminate and agent callback will not be done.

- Repair procedure:
 - The program could not read from the table either because there is no record in the table or the table does not exist.
 - To check which of these caused the problem, open the Mailbox Global Settings form. If the form is empty, the problem was caused by the missing table. If the form has default values when it was last set to different values, the record was missing. This can be fixed by entering the appropriate values and saving the form.
 - If none of these worked, stop and restart the voice system. If the problem still persists, remove the Callback Messaging package and reinstall it.

CCC002 -- -- --- TROUBLE: callbackDIP MAJOR
1001: Oracle logout failed.

- Message priority:

CCC002 - TROUBLE
- Description and effect:

The callbackDIP program encountered problems while logging out of ORACLE. The program should not log out of ORACLE unless some problem caused it to do so. The program will terminate and agent callback will not be done.
- Repair procedure:

Fix the problem that caused the program to log out in the first place.

CCC002 -- -- --- TROUBLE: callbackDIP MAJOR
1004: Oracle logout failed.

- Message priority:

CCC002 - TROUBLE
- Description and effect:

The callbackDIP program encountered problems while logging out of ORACLE. The program should not log out of ORACLE unless some problem caused it to do so. The program will terminate and agent callback will not be done.
- Repair procedure:

Fix the problem that caused the program to log out in the first place.

CCC002 -- -- --- TROUBLE: CallbackDIP MAJOR
1000: sqlLogin: <ORACLE error description>.

- Message priority:

CCC002 - TROUBLE

- Description and effect:

The callbackDIP program could not log into ORACLE using **username sti** with password **sti**. The problem is described by the ORACLE error description. The program will terminate and agent callback will not be done.

- Repair procedure:

- Check that there is a user **sti** with password **sti** in the ORACLE database. If there isn't, the user must be added.
- Check that the ORACLE database is not corrupted.
- Refer to the ORACLE error codes document for more detail on the ORACLE error.

CCC002 -- -- --- TROUBLE: CallbackDIP MAJOR
1001: sqlLogin: <ORACLE error description>.

- Message priority:

CCC002 - TROUBLE

- Description and effect:

The callbackDIP program encountered some problems while logging out of ORACLE. The problem is described by the ORACLE error description. The program should not log out of ORACLE unless some problem caused it to do so.

- Repair procedure:

- Refer to the ORACLE error codes document for more detail on ORACLE.
- Fix the problem that caused the program to log out in the first place.

CCC002 -- -- --- TROUBLE: CallbackDIP MAJOR
0: getNextInterval : Could not get current time

- Message priority:
CCC002 - TROUBLE
- Description and effect:
The callbackDIP program could not access the system clock. There might be something wrong with the CONVERSANT's system clock.
- Repair procedure:
 - Check that the system clock is okay.
 - Stop and restart the voice system.

CCC002 -- -- --- TROUBLE: CallbackDIP MAJOR
1006: Cannot fill message Cache

- Message priority:
CCC002 - TROUBLE
- Description and effect:
A problem was encountered while loading the cache from the Message table. The description of the ORACLE error will be in the error log before this entry.
- Repair procedure:
Refer to the ORACLE error codes document for more detail on the ORACLE error.

CCC002 -- -- --- TROUBLE: CallbackDIP MAJOR
1008: Cannot fill message Cache

- Message priority:
CCC002 - TROUBLE
- Description and effect:
A problem was encountered while loading the cache from the Message table. The description of the ORACLE error will be in the error log before this entry.
- Repair procedure:
Refer to the ORACLE error codes document for more detail on the ORACLE error.

CCC002 -- -- --- TROUBLE: CallbackDIP MAJOR
1:ForwardOldMsg : SQL error during forwarding

- Message priority:
CCC002 - TROUBLE
- Description and effect:
A problem was encountered while forwarding an alarm message. A description of the ORACLE error will be in the error log before this entry.
- Repair procedure:
Refer to the ORACLE error codes document for more detail on the ORACLE error.

CCC002 -- -- --- TROUBLE: CallbackDIP MAJOR
1:MWLOnOff : SQL error during MWL on/off.

- Message priority:
CCC002 - TROUBLE
- Description and effect:
A problem was encountered while turning MWL on or off. The description of the ORACLE error will be in the error log before this entry.
- Repair procedure:
Refer to the ORACLE error codes document for more detail on the ORACLE error.

CCC001 -- -- --- NOTICE: startingDIP

- Message priority:
CCC001 - NOTICE
- Description and effect:
This message is entered every time the callbackDIP starts up. If it occurs because of the voice system being stopped and restarted, it is okay. If the voice system is up and this message keeps appearing, there is a possible problem.
- Repair procedure:
If there could be a problem, stop and restart the voice system.

CCC001 -- -- --- NOTICE: callbackDIP WARNING
<ORACLE error code>:<module>:Oracle error<ORACLE error code>:<ORACLE
error description>

- Message priority:
CCC001 - NOTICE
- Description and effect:
An ORACLE error was encountered during the execution of callbackDIP program. The effects depend on what the error is. Look at the surrounding error messages from callbackDIP on what the effects are.
- Repair procedure:
Refer to the ORACLE error codes document for more detail on the ORACLE error, and refer to the other error messages from callbackDIP on how to repair the problem.

CCC001 -- -- --- NOTICE: CallbackDIP WARNING
1: C4AUDIT:failed to run system.Ret code(<num>)

- Message priority:
CCC001 - NOTICE
- Description and effect:
The C4AUDIT script could not be soft_srz. If the Ret code's value is 2, the script could not run because there were too many soft_srz requests for the CONVERSANT application manager to handle. If the value is a negative number, the program could not make a system call. The hourly audit will not be done.
- Repair procedure:
 - If the Ret code's value is 2, no corrective action is necessary.
 - If the value is a negative number, the maximum number of simultaneous processes running might be too low. If so, increase it.

CCC001 -- -- --- NOTICE: CallbackDIP WARNING
1: C4CB:failed to run system.Ret code(<num>)

- Message priority:
CCC001 - NOTICE
- Description and effect:
The C4CB script could not be soft_srz. If the Ret code's value is 2, the script could not run because there were too many soft_srz requests for the CONVERSANT application manager to handle. If the value is a negative number, the program could not make a system call. The agent callback attempt failed.

- Repair procedure:
 - If the Ret code's value is 2, no corrective action is necessary.
 - If the value is a negative number, the maximum number of simultaneous processes running might be too low. If so, increase it.

CCC002 -- -- -- WARNING: rebuild_MWL_array : no mailboxes.

- Message Priority:

CCC002 - WARNING
- Description and effect:

No mailboxes have been created for ExtraAgent.
- Repair procedure:

No action necessary.

CCC003 -- -- -- TROUBLE: rebuild_MWL_array : malloc failed.

- Message Priority:

CCC003 - TROUBLE
- Description and effect:

Dip failed to dynamically allocate memory for data structure.
- Repair procedure:

Use the kill command to restart the DIP
Reboot the system

CCC002 -- -- -- WARNING: rebuild_MWL_array : Orphan Messages for mailbox.

- Message Priority:

CCC002 - WARNING
- Description and effect:

Messages were not deleted when the mailbox they belong to was removed. These messages will take up space and use message numbers.
- Repair procedure:

Log into sqlplus as use sti with password sti. Type delete from message where msgnum = <orphan message #>; delete from msgsegments where msgmsgnum = <orphan message #>; exit.

CCC003 -- -- -- TROUBLE: usrInitialize : Failed to initialize MWL in DPlanDip.

- Message Priority:

CCC003 - TROUBLE

- Description and effect:
The DPlanDip wasn't able to set the message waiting lamps associated with the mailboxes.
- Repair procedure:
Use the kill command to restart both the DPlanDip and the msgdrpDIP.
Reboot the system if killing the dips failed.
Same error message but instead of usrInitialize the function is rebuildMWLArray.

CCC003 -- -- -- TROUBLE: usrAddMessage : Failed to locate mailbox to turn on MWL .

- Message Priority:
CCC003 - TROUBLE
- Description and effect:
Dip was unable to find the mailbox in its array structure. As a result the DPlanDip will not be able to set the message waiting lamp associated with the mailbox.
- Repair procedure:
Use the kill command to restart both the DPlanDip and the msgdrpDIP.
Reboot the system if killing the dips failed.

CCC003 -- -- -- TROUBLE: usrDeleteMsg : Failed to find the mailbox to update the MWL array.

- Message Priority:
CCC003 - TROUBLE
- Description and effect:
Dip was unable to find the mailbox in its array structure. As a result the DPlanDip will not be able to set the message waiting lamp associated with the mailbox.
- Repair procedure:
Use the kill command to restart both the DPlanDip and the msgdrpDIP.
Reboot the system if killing the dips failed.
- CCC003 -- -- -- TROUBLE: usrGetMessage: Failed to locate mailbox to update MWLArray.Message Priority:
CCC003 - TROUBLE

- Description and effect:
Dip was unable to find the mailbox in its array structure. As a result the DPlanDip will not be able to set the message waiting lamp associated with the mailbox.
- Repair procedure:
Use the kill command to restart both the DPlanDip and the msgdrpDIP.
Reboot the system if killing the dips failed.
- CCC003 -- -- -- TROUBLE: usrGetNxtMessage: Failed to locate mailbox to upMessage Priority:
CCC003 - TROUBLE
- Description and effect:
Dip was unable to find the mailbox in its array structure. As a result the DPlanDip will not be able to set the message waiting lamp associated with the mailbox.
- Repair procedure:
Use the kill command to restart both the DPlanDip and the msgdrpDIP.
Reboot the system if killing the dips failed.

CCC003 -- -- -- TROUBLE: usrUpdateMessage: Failed to locate mailbox to update MWLarray.

- Message Priority:
CCC003 - TROUBLE
- Description and effect:
Dip was unable to find the mailbox in its array structure. As a result the DPlanDip will not be able to set the message waiting lamp associated with the mailbox.
- Repair procedure:
Use the kill command to restart both the DPlanDip and the msgdrpDIP.
Reboot the system if killing the dips failed.

CCC003 -- -- -- TROUBLE: usrUpdateMessage : Value in msgstat isn't R or S.

- Message Priority:
CCC003 - TROUBLE
- Description and effect:
The script is trying to update a message to an illegal state.

- Repair procedure:
Use the kill command to restart the msgdrpDIP.
Reboot the system.

CCC003 -- -- -- TROUBLE: usrForwardMsg : MWLarray lookup failed.

- Message Priority:
CC003 - TROUBLE
- Description and effect:
The script failed to find one of the mailboxes involved in forwarding the message.
- Repair procedure:
Use the kill command to restart the msgdrpDIP.
Reboot the system.

CCC003 -- -- -- TROUBLE: MWL_Call: MWL call failed.

- Message Priority:
CCC003 - TROUBLE
- Description and effect:
The call to the DPlanDip to set the message waiting lamp associated with the mailbox failed.
- Repair procedure:
Use the kill command to restart both the DPlanDip and the msgdrpDIP.
Reboot the system if killing the dips failed.

Other Problems

Due to the structure of Customer Assist Care Center, a single problem can sometimes have any one of a number of causes and remedies. The following section presents a broad selection of problems that may be addressed by any of the remedies given.

Problem:

System operates improperly or database(s) have become corrupted.
Specifically:

- Can't open file: file does not exist error encountered.
- System does not write data to fields.
- System does not write to fields that it normally populates after the user enters information elsewhere on the form.
- Error is encountered when attempting to save, close, or cancel a form or text entry.
- The save operation (that is, CHG-KEYS [F8] and SAVE [F3]) appears to work, but user finds information missing after reentering form.
- Function keys, such as REMOVE [F3] and DELETE [F4], do not work.
- System will not place new vectors in service.
- System will not record speech.
- System will not input, export, back up, or restore databases.
- Vector, phrase, mailbox, and routing databases become corrupted.
- System dumps core.
- System monitor does not become activated.
- Access to UnixWare operating system is denied.
- Terminal freezes.
- Form accepts invalid input or rejects valid input.
- System routinely gives warning messages when starting Customer Assist Care Center.

Cause and Possible Remedy:

System is improperly tuned or configured. Check for:

- Free disk space under */usr*
- Console system messages
- Invalid UnixWare operating system parameters
- Faulty hardware in all key components
- TERM or SMTERM environmental variable is not set to the user's terminal type.



NOTE:

If one of the databases has been corrupted, follow the previous recommendations to correct the underlying problem, and then restore the database from a backup on diskette. If a backup is not available, restore as follows:

Vector database: Check every action in each vector to verify that they are correct. Change actions as necessary and save the vector.

Phrase database: Check each phrase to verify that all tags and texts are correct. Change and save phrases as necessary.

Mailbox database: Check each mailbox to verify that every form and setting is correct. Change and save settings as necessary.

Routing tables: Consider removing and adding these tables. If databases cannot be restored or rebuilt, call your support representative.



CAUTION:

Do not save a form if you think it may corrupt your database.

This chapter explains installation and removal of Customer Assist Care Center.

**NOTE:**

Version 6.0 uses pkgadd and pkgrm. Previous versions used installpkg and removepkg.

Overview of Installation and Removal

This chapter explains how to install and remove the Customer Assist Care Center Platform Management package and optional packages on the system. To install the Customer Assist Care Center software, you must have the Lucent INTUITY CONVERSANT system, Version 6.0 software in place. For more information, see:

- *Lucent Intuity CONVERSANT System Version 6.0 Maintenance*, 585-310-181 (MAP/40) or 585-310-179 (MAP/100)
- *LUCENT INTUITY CONVERSANT System Version 6.0 Upgrade*, 585-310-183

The two packages you must install are:

- Platform Administration Version 6.0
- Platform Language and Runtime Version 6.0

The optional packages are:

- Speech Recognition Version 6.0
- Custom Call Routing Version 6.0
- Callback Messaging Administration Version 6.0
- Callback Messaging Language and Runtime Version 6.0

■ Dial Pulse Recognition 6.0

After you install your packages, you must assign the Customer Assist Care Center service, named "ccc," to every port you plan to use. Refer to the CONVERSANT 6.0 administration guide for more information about assigning service to channels.



CAUTION:

Only one pkgadd package should be installed or removed at once. Failure to do so may result in serious corruption of the system's installation information. For example, installing packages simultaneously off of tape and floppy should be avoided.



CAUTION:

When Customer Assist Care Center is installed, the CONVERSANT system needs to be rebooted. Do not install this software on a system that is receiving calls.



NOTE:

If the installation of a multidisk package is aborted by pressing "q" at the disk prompt, the package will be partially installed. This disk set must be fully installed before other disk sets that depend on it can be installed. The partially installed package may need to be removed before it can be fully installed.

Installing Platform Administration

When installing the Customer Assist Care Center Platform Management package, you must install the Platform Administration package first. To install this package, follow this procedure:

1. Log into the system as root.
2. At the UnixWare system root prompt, #, enter **pkgadd -d diskette1**.
3. When prompted insert the Platform Administration disk into the floppy drive. Type **go** at the prompt, or **q** if you choose to quit at this time.



NOTE:

If you abort the installation, by pressing **q** at the prompt or the **DELETE** key, you need to remove the package before reinstalling.

4. If you have chosen to continue, the system will list installable packages on the disk. At the prompt, enter the number of the listed package or **all**.
System response:

PROCESSING:

Package: LUCENT TECHNOLOGIES Customer Assist Care Center

Platform
Administration (cccPltfrm) from <diskette1>.

LUCENT TECHNOLOGIES Customer Assist Care Center Platform
Administration
(i386) Version 6.0
Using </> as the package base directory.
Copyright (c) 1996 SpanLink Communications
All Rights Reserved.
Processing package information.
Processing system information.
Verifying package dependencies.
Verifying disk space requirements.

Installing LUCENT TECHNOLOGIES Customer Assist Care
Center Platform Administration as <cccPltfrm>

Installing part 1 of 3...

5. The system will prompt you for disk 2 of 3. Insert the disk and type **go**. The system will install the second part.
6. When prompted, enter disk 3 and type **go** to finish the install of this package.
7. The system will prompt you for the type of switch you are using with your CONVERSANT, G3V2-4 or the ECS R5. When prompted, specify the correct switch and press

The system will respond:

Running the licensing utility. You will be given three tries to enter the password. After the third invalid attempt the installation will continue using a single port license.

8. Enter the licensing password.



NOTE:

This password is different from the Care Center password. The installer must have a password to set the correct number of ports. Contact your Lucent representative if you have any questions.

9. When prompted, enter the number of ports for your system. The options are as follows:
 - 6 port Platform Management package
 - 12 port Platform Management package

- 12 port Bundle (including the Platform Management package, Callback Messaging and Custom Call Routing)
 - 13 - 30 port Bundle (including the Platform Management package, Callback Messaging and Custom Call Routing)
 - 31-60 port Bundle (including the Platform Management package, Callback Messaging and Custom Call Routing)
 - 61-96 port Bundle (including the Platform Management package, Callback Messaging and Custom Call Routing)
10. The system will then require you to set a password. At the prompts enter and confirm the selected password. (You may enter **ccc**.)

System response:

Adding user ccc to the system...

New password:

Re-enter new password:

11. The system will require that you reconfigure the UNIX kernel. When prompted after setting up the password, enter **y** or **Y**.



NOTE:

The kernel needs to be reconfigured for the UNIX system to have sufficient resources for Care Center to run properly.

12. When installation of Platform administration is complete the following message will appear:

Installation of LUCENT TECHNOLOGIES Customer Assist Care Center Platform Administration (cccPltfrm) was successful.

The system will ask you to insert the next disk in the set to continue the installation.

Installing Platform Language and Runtime (US English)

When installing the Customer Assist Care Center software, you must install the Platform Language and Runtime packages after Platform Administration. To install these packages, follow this procedure:

1. At the prompt, type **go** to install Platform Language and Runtime.
2. If you have chosen to continue, the system will list installable packages on the disk. At the prompt, enter the number of the listed package or **all**.
3. The system will start installing Platform Language and Runtime (US English).



NOTE:

This language will be set to a default language if it is the first Runtime and Language package installed.

4. At the prompt, remove disk 1 and enter disk 2 of disk 4. Type **go** to continue.
5. Repeat this process for disks 3 and 4.
6. When the install is complete the system will respond :

Installation of LUCENT TECHNOLOGIES Customer Assist Care
Center Platform Language and Runtime US English
(cccPltUSE) was successful.



NOTE:

If you are using more than one language, install the other platform Language and Runtime packages. Up to four Platform Language and Runtime packages can be installed on the CONVERSANT at one time.

Callback Messaging Installation (Optional)

1. At the prompt, insert the first Callback Messaging disk in the disk drive. Type **go** to continue installing. (If you choose to quit the installation at this time type **q**.)
2. At the next prompt select the number of Callback Messaging or type **all** to start the installation.
3. At consecutive prompts insert disk 2 and 3 and continue the installation.
4. During installation of disk 3 the system will prompt whether or not to restart the voice system. Type **y** or **Y** and press **ENTER**.



NOTE:

After the Voice System has completely stopped, use the Start Voice System choice from the System Control menu to restart the Voice System.

5. When the installation is complete the system will respond with:

Installation of LUCENT TECHNOLOGIES Customer Assist Care
Center Callback Messaging Administration (cccCbKMsg) was
successful.

Callback Messaging Language and Runtime (US English) (Optional)

1. At the prompt insert disk 1 and type **go**.
2. At the next prompt, the system will ask you to choose the package. Type the number of the package listed or **all**.
3. At consecutive prompts, insert disks 2 and 3 to complete the install.
4. When the install is complete the system will respond:

Installation of LUCENT TECHNOLOGIES Customer Assist Care Center Callback Messaging Language and Runtime US English (cccCbKUSE) was successful.



NOTE:

If you are using more than one language, install the other Callback Messaging Language and Runtime Packages. Up to four Callback Messaging Language and Runtime packages can be installed on the CONVERSANT at one time.

Installing Custom Call Routing (Optional)

1. At the prompt, insert the Custom Call Routing disk 1 and type **go**.
2. Select the Custom Call Routing package listed by typing its number or typing **all**.
3. When the install is complete the system will respond:

Installation of LUCENT TECHNOLOGIES Custom Assist Care Center Custom Call Routing (cccRouter) was successful.

Dial Pulse Recognition (Optional)

1. At the prompt, insert the Dial Pulse Recognition disk 1 and type **go**.
2. Select the Dial Pulse Recognition package listed by typing its number or typing **all**.
3. When the install is complete the system will respond:

Installation of LUCENT TECHNOLOGIES Dial Pulse Recognition was successful.

Speech Recognition (Optional)

To install this package, follow this procedure:

1. At the prompt, insert the Speech Recognition disk 1 and type **go**.
2. Select the Speech Recognition package listed by typing its number or typing **all**.
3. When the system asks whether to enable Speech Recognition for the language selected, type **Y** or **y** for each of the languages in which you will be using speech recognition and press **(ENTER)**. If the installer enters **Y** or **y** the custom grammars for those languages will be enabled. Otherwise, attempts to use the custom grammars will fail.



NOTE:

Care Center does not check how many languages have been enable even though enabling more than two languages could cause problems. It is up to the installer to enable at most two languages.



NOTE:

If the Platform Runtime and Language packages are loaded after the Care Center Speech Recognition package, the system will ask the installer whether to enable the Speech Recognition for that language. The effects are the same as when asked during the installation of the Care Center Speech Recognition package.

4. When the install is complete the system will respond:

Installation of LUCENT TECHNOLOGIES Speech Recognition was successful.



NOTE:

Up to two Speech Recognition languages can be installed at one time on the CONVERSANT. The Lucent Technologies Whole Word Speech Recognition packages for the language must be installed first.

Removing the Customer Assist Care Center Software

The Customer Assist Care Center software should be removed in reverse order. Therefore, you should remove the optional packages first:

- Callback Messaging Language and Runtime
- Callback Messaging Administration
- Custom Call Routing
- Speech Recognition
- Dial Pulse Recognition

Then you should remove the Platform packages:

- Platform Language and Runtime
- Platform

This procedure will also remove all standard speech phrases in talk file #6100.

⇒ NOTE:

The system will not allow you to remove the base language at this time, unless it is the only Language and Runtime package left. Before removing a base language, use the CHG_LANG function to change the base language of the package.

Removing Package

To remove any Care Center package, follow this procedure.

⇒ NOTE:

Be sure to remove packages in the order mentioned above.

1. At the UNIX prompt, type **pkgrm** and press **(ENTER)**. As list of packages, such as those shown below, will appear. The following packages are available:

⇒ NOTE:

Care Center packages usually start at 13. To scroll down the screen for a list of more choices, press **(ENTER)** or type CTRL **[D]** to stop the display.

```
13  cccCbKAus      LUCENT TECHNOLOGIES  Customer Assist Care
    Center Callback Messaging Language and Runtime Australian
    English
                                (i386) Version 6.0
14  cccCbKGer      LUCENT TECHNOLOGIES  Customer Assist
```

Care Center Callback Messaging Language and Runtime German
(i386) Version 6.0

15 cccCbKMsg LUCENT TECHNOLOGIES Customer Assist
Care Center Callback Messaging Administration

(i386) Version 6.0

16 cccCbKUKL LUCENT TECHNOLOGIES Customer Assist
Care Center Callback Messaging Language and Runtime UK
English

(i386) Version 6.0

17 cccCbKUSE LUCENT TECHNOLOGIES Customer Assist
Care Center Callback Messaging Language and Runtime US
English(i386) Version 6.0

18 cccDPulse LUCENT TECHNOLOGIES Customer Assist Care
Center Dial Pulse Recognition

(i386) Version 6.0

19 cccPltAus LUCENT TECHNOLOGIES Customer Assist
Care Center Platform Language and Runtime Australian
English

(i386) Version 6.0

20 cccPltGer LUCENT TECHNOLOGIES Customer Assist
Care Center Platform Language and Runtime German

(i386) Version 6.0

... 97 more menu choices to follow;

<RETURN> for more choices, <CTRL-D> to stop display:

21 cccPltUKL LUCENT TECHNOLOGIES Customer Assist
Care Center Platform Language and Runtime UK English

(i386) Version 6.0

22 cccPltUSE LUCENT TECHNOLOGIES Customer Assist
Care Center Platform Language and Runtime US English

(i386) Version 6.0

23 cccPltfrm LUCENT TECHNOLOGIES Customer Assist
Care Center Platform Administration

(i386) Version 6.0

24 cccRouter LUCENT TECHNOLOGIES Customer Assist
Care Center Custom Call Routing

(i386) Version 6.0

25 cccSpcRec LUCENT TECHNOLOGIES Customer Assist
Care Center Speech Recognition (i386) Version 6.0

2. At the prompt, type the number of the package you wish to remove or type **all** if you are removing the entire system.
3. At the removal confirmation prompt, type **Y** or **y** to continue removing the package. (Type **N** or **n** or to not remove or quit the removal process.)
4. The system will remove the selected package and will return a prompt such as:

Removal of <cccCbKGer> was successful.

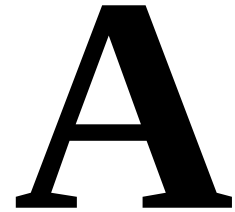
5. Repeat this procedure for subsequent packages that you wish to remove.



NOTE:

The Platform Administration package will ask whether the user wishes to save the database during removal.

Hard-Drive Space Requirements



Overview

Customer Assist Care Center requires various resources on the system. Examples are hard disk space, memory, and processor times. The system has to be tuned by specifying sufficient resources for Care Center to function properly. Some of the tuning is the same on all systems, while others depend on the needs of your call center, number and type of calls received, and the Care Center packages installed.

When used in a busy call center environment, Care Center occupies a significant amount of hard disk storage space under the /root, /usr and /voice2 (speech) file systems.

NOTE:

The /home2 speech file system is actually a link to the /voice2 file partition.

This appendix will help you decide how much space to allocate to Care Center when you configure your CONVERSANT system.

For general disk drive partitioning guidelines, refer to the CONVERSANT Version 6.0 Software Installation and Upgrade Manual.

Amount of Partition Space

Use the following information to calculate the amount of space you must include for Care Center when you partition your hard disk. When gauging space requirements, you must account for:

- Customer Assist Care Center packages

- Customer Assist Care Center call logs for reporting
- Call-handling data stored in the ORACLE database
- Any ORACLE database table(s) you create for the Customer Assist Care Center Custom Call Routing

Customer Assist Care Center Platform Management Package

Hard Disk Drive Space Requirements

Application Software

Customer Assist Care Center Platform Management package requires approximately 1 megabyte under /root and 2.5 megabytes under /usr for application files. Include these figures in your calculations to define the total space required in the /root, /usr and speech file system.

Call Logs

The Care Center Platform Management package stores information about each call in its own call log database, a few UNIX files under /usr. Each call creates a record of about 65 bytes that the system normally stores in the call log for 7 days. Note that the way in which you set up applications could increase or decrease the amount of data generated per call.

To calculate the space needed in the /usr file system for the Care Center call log database, use the following equation where:

X = Number of days to keep data in the call log

Y = Number of calls per day to the Care Center application

Then,

$(X \text{ days}) * (Y \text{ calls/day}) * (65 \text{ bytes/call}) * (1 \text{ megabyte}/1,000,000 \text{ bytes}) =$

The total megabytes of space in /usr for call logs.

For example, a call center that receives 2,000 calls per day and stores call logs for the default seven days needs:

$(7 \text{ days}) * (2,000 \text{ call/day}) * (65 \text{ bytes/call}) * (1 \text{ megabyte}/1,000,000 \text{ bytes}) = 0.9$ megabytes in /usr.

Call-Handling Data in ORACLE

The CONVERSANT VIS stores call handling data in the ORACLE database in the /root file system. For ORACLE database sizing, refer to the CONVERSANT Version 6.0 Operations Manual. The database file takes space from the /root file system. Recognize this requirement when you partition /root.

For a general guideline of CONVERSANT systems with the Care Center packages only:

A CONVERSANT MAP/40 that receives 10,000 calls per day needs an ORACLE database of at least 17 megabytes. This fits in the 20-megabyte ORACLE database of the general usage partitioning for the MAP/40.

A CONVERSANT MAP/100 that receives 30,000 calls per day needs an ORACLE database of at least 45 megabytes. This fits in the 60-megabyte ORACLE database of the general usage partitioning for the MAP/100.

When using Care Center with any other application(s) or when exceeding the above parameters, see the operations manual to calculate your database's actual size requirements. Other optional Care Center packages may require additional Oracle database space beyond the amount specified above.

Prompts Speech

Speech must be recorded for Care Center prompts to play the prompts to the callers. To ensure that performance is not degraded, Care Center systems with more than 30 ports should not use the 64K speech coding rate. By default, Care Center prompts use the 32K coding rate. At this rate, approximately 14 megabytes of the speech partition(s) are used for each hour of speech.

For systems with fewer than 30 ports, a speech coding rate of 64K can be used for higher speech quality, especially for Care Center prompts. At this rate, approximately 28 megabytes of the speech partition(s) are used for each hour of speech. The coding rate of CELP 16 can also be used. It uses approximately 16.6 megabytes of the speech partition for each hour of speech. This requires the SSP card.

To calculate the space needed for Care Center, use the following equation, where:

X = Expected number of Platform Management package prompts

Y = Expected average length of Platform Management package prompts in seconds

Z = 14 megabytes/hr (32K coding rate) or 28 megabytes/hr (64K coding rate) for speech usage

Then, $(1 \text{ megabyte}) + [(X) * (Y \text{ sec}) * (Z \text{ megabytes/hr}) / 3600 \text{ sec/hr}] =$

The total megabytes of space in the speech partition(s) for Care Center Platform Management package speech and announcements.

For example, a Care Center system with a total of 50 Platform prompts of 20 seconds long, each using the 32K coding rate needs:

$$(1 \text{ megabyte}) + [(50) * (20 \text{ sec}) * (14 \text{ megabytes/hr}) / (3600 \text{ sec/hr})] =$$

5 megabytes of space in the Unix operating system file system

Memory Requirements

The Platform Management package requires a minimum of 32 megabytes of memory.

UNIX Kernel Parameters

Care Center requires the following UNIX kernel parameters tuned:

- NPROC - This specifies the maximum number of processes that can run simultaneously on the system. This should be set to 250.

Care Center Custom Call Routing

Hard Disk Drive Space Requirements

Application Software

The Customer Assist Care Center Custom Call Routing package requires approximately 0.1 megabyte under /usr for application files. Include these figures in your calculations to define the total space required in the /usr file system.

Information in ORACLE Database Tables

When using the Care Center Custom Call Routing package, you will create an ORACLE database table in the /usr file system for each call routing application. Each ORACLE table has the potential to hold thousands of records. Each ORACLE database requires up to 2.5 megabytes.

The Custom Call Routing package is optional. If you will not be using it, you do not need to include additional space requirements in your calculations to define /usr.

Each routing table can be a different size, depending on the maximum number of records set during the creation of the table. So, to calculate the space needed in

the /usr file system for the Custom Call Routing database tables, you must add all tables sizes to get the total requirements. By table, calculate as follows:

$Y = \text{Maximum number of records in table}$

$Z = Y * 120 \text{ bytes} = \text{Number of bytes required for table}$

For example, a Care Center system with 1 call routing database table with 10,000 records and another with 25,000 records would need:

- $(10,000 * 120) + (25,000 * 120) = 4.2 \text{ megabytes of space in the /usr partition.}$

Care Center Callback Messaging

Hard Disk Drive Space Requirements

Application Software

The Customer Assist Care Center Callback Messaging package requires approximately 4 megabytes under /root and 2.5 megabytes under /usr for application files. It also requires 1.4 megabytes for pre-recorded speech for each language loaded on the system. Include these figures in your calculations to define the total space required in the /root, /usr and speech file system.

Messages in ORACLE Database Tables

The Care Center Callback Messaging package stores the message records in ORACLE database tables that reside in the SYSTEM tablespace in the /root file system. The SYSTEM tablespace is the default place where ORACLE database tables reside in general. When ORACLE is set up, space in the /root file system is immediately allocated for the SYSTEM tablespace. Therefore, adding records will use space in the SYSTEM tablespace but will not increase the amount of space used in the /root file system beyond what is already allocated. Each message record takes about 600 bytes from the free space in the SYSTEM tablespace.

The Callback Messaging package is optional. If you will not be using it, you do not need to include additional space requirements in your calculations in the SYSTEM tablespace and the /root file system.

To calculate the space needed in the SYSTEM tablespace and the /root file system for Callback Messaging message records, use the following equation where:

$X = \text{Expected number of end user messages}$

Then, $X * (450 \text{ bytes per message}) * (1 \text{ megabyte}/1,000,000 \text{ bytes}) =$

The total megabytes of space in the SYSTEM tablespace and /root partition for the messages.

For example, a Care Center system that receives 2,000 message drops per day needs:

- $2,000 * (600 \text{ bytes per message}) * (1 \text{ megabyte}/1,000,000 \text{ bytes}) = 1.2 \text{ megabytes}$

Prompts Speech

Speech must be recorded for Care Center Callback Messaging to play the prompts to the callers. To ensure that performance is not degraded, Care Center call-center systems with more than 30 ports should not use the 64K speech coding rate. By default, Care Center Callback Messaging prompts use the 32K coding rate. At this rate, approximately 14 megabytes of the speech partition(s) are used for each hour of speech.

For systems with fewer than 30 ports, a speech coding rate of 64K can be used for higher speech quality, especially for Care Center Callback Messaging prompts. At this rate, approximately 28 megabytes of the speech partition(s) are used for each hour of speech.

To calculate the space needed for Care Center Callback Messaging, use the following equation, where:

- X = Expected number of Callback Messaging prompts
- Y = Expected average length of Callback Messaging prompts in seconds
- Z = 14 megabytes/hr (32K coding rate) or 28 megabytes/hr (64K coding rate) for speech usage

Then, $(1 \text{ megabyte}) + [(X) * (Y \text{ sec}) * (Z \text{ megabytes/hr}) / 3600 \text{ sec/hr}] =$

The total megabytes of space in the speech partition(s) for the Care Center Callback Messaging speech and announcements

For example, a Care Center system with a total of 50 Callback Messaging prompts of 20 seconds long, each using the 32K coding rate needs:

$(1 \text{ megabyte}) + [(50) * (20 \text{ sec}) * (14 \text{ megabytes/hr}) / (3600 \text{ sec/hr})] =$

5 megabytes of space in the UNIX operating system file system

Speech Messages

The system records all Callback Messaging messages using the 16K coding rate. This means that about 7 megabytes of the speech partition(s) are used for each hour of messages stored. The system stores messages until a call center agent or system administrator removes them.



NOTE:

The Callback Messaging package is optional. If you will not use it, you do not need to include additional memory requirements in your calculations.

To calculate the space needed for Care Center Callback Messaging messages, use the following equation, where:

- X = Expected number of end user messages
- Y = Expected average length of end user messages in seconds

Then, $(X) * (Y \text{ sec}) * (7 \text{ megabytes/hr}) / (3600 \text{ sec/hr}) =$

The total megabytes of space in the UNIX operating system file system for the end user messages.

For example, a Care Center system that stores 250 end user messages with an average length of 120 seconds each needs:

$(250) * (120 \text{ sec}) * (7 \text{ megabytes/hr}) / (3600 \text{ sec/hr}) = 58 \text{ megabytes of space in the speech partition(s)}$

Care Center Speech Recognition

Hard Disk Drive Space Requirements

Application Software

The Care Center Speech Recognition package requires approximately 0.25 megabyte under /usr and 2.5 megabytes under /root for application files. Include these figures in your calculations to define the total space required in the /usr and /root file system.

Care Center Dial Pulse Recognition

Hard Disk Drive Requirements

Application Software

Care Center Dial Pulse Recognition package requires approximately 0.25 megabyte under /usr for application files. Include these figures in your calculations to define the total space required in the /usr file system.

Port Sizing Guidelines

B

General Considerations

Use the following forms to help estimate the number of analog ports required for various CONVERSANT vector applications created on the Customer Assist Care Center platform.

You can set up your DEFINITY vector to direct calls to any available CONVERSANT port by assigning all CONVERSANT ports to a single hunt group. Or, you can create groups of hard- and dynamically-allocated ports by segregating particular CONVERSANT ports within multiple DEFINITY hunt groups.

Refer to standard ERLANG B engineering tables in *INTUITY CONVERSANT System Version 6.0 Administration*, 585-310-591, for assistance in sizing ports for each Customer Assist Care Center application.

Standard Announcement Guidelines

CONVERSANT ports must be assigned as dedicated announcement extensions in Customer Assist Care Center. You must allow one hard-allocated port for each standard announcement. Therefore, port requirements must be calculated on a per announcement basis.

Dynamic Port Allocation

You can allocate ports in Customer Assist Care Center dynamically to provide efficient port utilization. All CONVERSANT vector applications other than standard announcements may be allocated dynamically across CONVERSANT ports.

Dynamically-allocated ports receive arguments from the PBX and start CONVERSANT vectors based on the values of those arguments. For example, a single call directed to a Customer Assist Care Center channel 0 may pass VDN 2000 to execute an ADA or EWT vector, whereas the next call directed to channel 0 may pass 3000 to hear a Custom Call Routing application.

Callback Messaging

As a rule, it is sufficient to calculate only port requirements for incoming calls because other Callback Messaging activities, such as agent callback, transcription, and automatic callback, occur on the same ports at non-peak times when agents and ports are readily available.

However, some call centers may require ports dedicated to transcription. These call centers should hard allocate one port per transcriber.

⇒ NOTE:

If you wish to provide the option for callers to drop a message to “wait in queue” in place of the caller, you must allocate a number of ports that is equal to the number of callers/messages that are required to be queued to achieve this service. For example, if the wait time for the caller is estimated at five minutes, and you wish to provide the option for the caller to receive a callback in approximately five minutes, you must have as many ports available as you expect to have callers select this option for any given group. Otherwise, messages will be held back in the messaging queue, and not in queue for agents, and will thereby not reserve agent availability over inbound calls.

Custom Call Routing

On the average, you can budget fewer than ten seconds for lookup and call routing. Remember that the average call duration does not include post-routing call activity. The overall call duration for Custom Call Routing will vary according to the length and the number of announcements that play before the system routes the call, the time used for prompting in Customer Assist Care Center, the string length of the lookup field, and the size of the database.

Port Sizing Worksheet

Use the following worksheet to calculate the number of ports required for each application on the Customer Assist Care Center platform:

No. of Ports Required

■ **Standard Announcements**

Total number of standard announcements = _____

■ **Dynamic Announcements**

Number of calls in the busy hour

Average call duration

Grade of service

Result from standard ERLANG tables = _____

■ **Anticipated Delay/Queue Position Announcements**

Number of calls in the busy hour

Average call duration

Grade of service

Result from standard ERLANG tables = _____

■ **Script Builder Applications Executed from Care Center**

Number of calls in the busy hour

Average call duration

Grade of service

Result from standard ERLANG tables = _____

■ **Callback Messaging/Incoming Calls**

Number of calls in the busy hour

Average call duration

Grade of service

Result from standard ERLANG tables = _____

■ **Callback Messaging/Dedicated Transcription**

Number of simultaneous transcribers in
the busy hour = _____

■ **Custom Call Routing**

Number of calls in the busy hour
Average call duration
Grade of service
Result from standard ERLANG tables = _____

You may be able to minimize the number of ports required on your Customer Assist Care Center system if you dynamically allocate groups of applications to a particular hunt group(s) of CONVERSANT channels. This is particularly effective if peak times vary from application to application because several applications do not compete for resources within the same group of ports.

Use the following form to allocate multiple applications dynamically across CONVERSANT ports.

Remember that standard announcements and ports dedicated for Callback Messaging transcription still require hard-allocated ports.

■ **Customer Assist Care Center Application Group A:**

Number of calls in the busy hour
Average call duration
Grade of service
Result from standard ERLANG tables = _____

■ **Customer Assist Care Center Application Group B:**

Number of calls in the busy hour
Average call duration
Grade of service
Result from standard ERLANG tables = _____

■ **Customer Assist Care Center Application Group C:**

Number of calls in the busy hour

Average call duration

Grade of service

Result from standard ERLANG tables = _____

■ **Customer Assist Care Center Application Group D:**

Number of calls in the busy hour

Average call duration

Grade of service

Result from standard ERLANG tables = _____

■ **Customer Assist Care Center Application Group E:**

Number of calls in the busy hour

Average call duration

Grade of service

Result from standard ERLANG tables = _____

■ **Customer Assist Care Center Application Group F:**

Number of calls in the busy hour

Average call duration

Grade of service

Result from standard ERLANG tables = _____

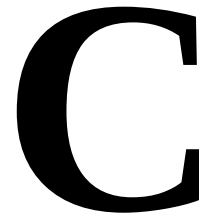
■ **Standard Announcements**

Total number of standard announcements = _____

■ **Callback Messaging/Dedicated Transcription**

Number of simultaneous transcribers in
the busy hour = _____

Maximum Values in Care Center Packages



Maximum Values

Table C-1. General Administration

Maximum number of concurrent calls per system	6, 12, 13-30, 31-60, 60-96
Maximum number of concurrent administrators	1
Maximum length of each variable value	24 characters (if used as a string) or 9 digits (if used as a number)
Maximum number of administrable vectors per system	256
Maximum length of each vector	14 steps
Maximum number of mailboxes for Callback Messaging	999,999 (recommended limit is 500)
Maximum number of messages for Callback Messaging	99,999
Maximum number of mailboxes performing the callback function at the same time	15 (recommended limit)
Maximum number of records per Custom Call Routing table	25,000 (Can easily link multiple tables together)
Maximum number of routing tables	limited only by hard disk capacity
Maximum number of lines of a report that may be displayed on screen	2000; however, the entire report can be printed.

The platform uses 24 actions, two additional actions for call back messaging, one additional action for custom call routing, one additional action for speech recognition, and one addition action for dial pulse recognition.

The platform uses five talkfiles for recorded speech:

- Talkfile 6104 (US English) for vector phrases
- Talkfile 6100 (US English) for standard speech phrases
- Talkfile 6105 (US English) for mailbox phrases
- Talkfile 6102 (US English) for standard mailbox phrases
- Talkfile 6106 for message phrases

Each talkfile is limited to 65525 discrete phrase numbers.

 NOTE:

Actual number of phrases that can be created is also limited by the size of the speech slice on the hard disk. For each additional language used, another four talkfiles are used.

Table C-2. Talkfile Table

Language	Female/ Male	Standard	Mailbox custom & standard	Speech Admin.	Vector Phrases	Message Phrases
Australian English	Female	5100	5102	5103	5104	5105
Brazilian Portuguese	Female	5200	5202	5203	5204	5205
Canadian French	Female	5300	5302	5303	5304	5305
Castilian Spanish	Female	5400	5402	5403	5404	5405
Colombian Spanish	Female	5500	5502	5503	5504	5505
Dutch	Female	5600	5602	5603	5604	5605
European French	Female	5700	5702	5703	5704	5705
German	Female	5800	5802	5803	5804	5805
Japanese	Female	5900	5902	5903	5904	5905
UK English	Female	6000	6002	6003	6004	6005
US English	Female	6100	6102	6103	6104	6105

Table C-3. Key to Codes in the Following Tables

Code	Meaning	Format	Notes and Examples
NUM	Numeric Only	(0-9)	
AN	Alphanumeric	(a-z, A-Z, 0-9)	
TT	Touch-tones	(0-9, *, #)	
C	Comparison	(=, !=, <, <=, >, >=)	
O	Operators	(+, -, *, /, =)	
VEC	Vector numbers	(1 to 99)	
ANY	Any input except and /		
VAR	Variables		
ACT	Actions		
D	Day of the Week		
MONTH	JAN,...,DEC		
MM/DD/YY	Month/Day/Year		
PHR	Phrase Tag		
E	Existing		
NE	Not Existing		
R	Input Required		
NR	Input Optional (not required)		
CT	Column Type		Name of Transcription Detail column type
DF	Display Format	Left Justify- Data	
		Right Justify- Numbers	
		YYYYMMDDHH24MISS	19951107081530
		YYYYMMDD	19951107
		YYYY	1995
		YYMMDD	951107
		YYMM	9511
		YY	95
		MMDD	1107

Continued on next page

Table C-3. Key to Codes in the Following Tables — Continued

Code	Meaning	Format	Notes and Examples
DF		MM	11
		DD	07
		DD-MM-YYYY	07-11-1995
		DD-MM-YY	07-11-95
		DD-MON-YYYY	07-NOV-1995
		DD-MON-YY	07-NOV-95
		DD-MONTH-YYYY	07-NOVEMBER-1995
		DD-MONTH-YY	07-NOVEMBER-95
		DD/MM/YYYY	07/11/1995
		DD/MM/YY	07/11/95
		DD/MON/YYYY	07/NOV/1995
		DD/MON/YY	07/NOV/95
		DD/MONTH/YYYY	07/NOVEMBER/1995
		DD/MONTH/YY	07/NOVEMBER/95
		MM-DD-YYYY	11-07-1995
		MM-DD-YY	11-07-95
		MON-DD-YYYY	NOV-07-1995
		MON-DD-YY	NOV-07-95
		MONTH-DD-YYYY	NOVEMBER-07-1995
		MONTH-DD-YY	NOVEMBER-07-95
		MON/DD/YYYY	NOV/07/1995
		MON/DD/YY	NOV/07/95
		MONTH/DD/YYYY	NOVEMBER/07/1995
		MONTH/DD/YY	NOVEMBER/07/95
		D	day of week (1 = Sun,...7 = Sat)
		DAY	day of the week (Sunday,...Saturday)
		DY	abbreviate day of wk (Sun,...Sat)

Continued on next page

Table C-3. Key to Codes in the Following Tables — Continued

Code	Meaning	Format	Notes and Examples
DF		HH24:MI:SS	08:15:30
		HH24:MI	08:15
		HH24	08
		HH:MI:SS AM	08:15:30 AM
		HH:MI AM	08:15 AM
		HH AM	08 AM
CF	Convert Format (Sort by):	Character - Data	
		Number - Numbers	
		YYYYMMDDHH24MISS	19951107081530
		YYYYMMDD	19951107
		YYYY	1995
		YYMMDD	951107
		YYMM	9511
		YY	95
		MMDD	1107
		MM	11
		DD	07
		DD-MM-YYYY	07-11-1995
		DD-MM-YY	07-11-95
		DD-MON-YYYY	07-NOV-1995
		DD-MON-YY	07-NOV-95
		DD-MONTH-YYYY	07-NOVEMBER-1995
		DD-MONTH-YY	07-NOVEMBER-95
		DD/MM/YYYY	07/11/1995
		DD/MM/YY	07/11/95
		DD/MON/YYYY	07/NOV/1995
		DD/MON/YY	07/NOV/95
		DD/MONTH/YYYY	07/NOVEMBER/1995

Continued on next page

Table C-3. Key to Codes in the Following Tables — Continued

Code	Meaning	Format	Notes and Examples
CF		DD/MONTH/YY	07/NOVEMBER/95
		MM-DD-YYYY	11-07-1995
		MM-DD-YY	11-07-95
		MON-DD-YYYY	NOV-07-1995
		MON-DD-YY	NOV-07-95
		MONTH-DD-YYYY	NOVEMBER-07-1995
		MONTH-DD-YY	NOVEMBER-07-95
		MON/DD/YYYY	NOV/07/1995
		MON/DD/YY	NOV/07/95
		MONTH/DD/YYYY	NOVEMBER/07/1995
		MONTH/DD/YY	NOVEMBER/07/95
		D	day of week (1 = Sun,...7 = Sat)
		DAY	day of the week (Sunday,...Saturday)
		DY	abbreviate day of wk (Sun,...,Sat)
		HH24:MI:SS	08:15:30
		HH24:MI	08:15
		HH24	08
		HH:MI:SS AM	08:15:30 AM
		HH:MI AM	08:15 AM
		HH AM	08 AM
TK	Talkfile	Talkfile of languages installed	

Table C-4. Actions

		Valid Inputs	Max. length	Comments
ADA_CALC	Average call length:	NUM, R	3	
	Queue position:	VAR, NUM, R	12	
	Result:	VAR, R	12	
	Number of Agents per Hour:	NUM, NR	3	
ANNOUNCE	Talkfile	TKF (E), R	4	
	Phrase Tag:	PHR (E), R	50	
CHAN_ASN	Channel number:	0 to 99, NR	2	
	Queue position:	VAR, NUM, R	12	
	Vector number	VEC, NR	3	(Total of 12 pairs of the above two fields)
CHG_LANG	Change language to:	VAR, Valid Installed Language (R)	12	Language can be any installed language or a variable
CONVERSE	Number of digits to collect:	1 to 16, R	2	
	Load digits into variable:	VAR, R	12	
DATA_RTN	Feature Access Code:	TT, R	10	
	Data return segment:	VAR, TT, NR	24	(Total of 8 of these fields. The number of characters in all fixed and variable values combined cannot exceed 24).

Continued on next page

Table C-4. Actions — Continued

		Valid Inputs	Max. length	Comments
DYNAMIC	Variable:	VAR, R	12	
	Value:	NUM, -NUM, NR	10	
	Program:	AN (E), NR	12	(Existing Script Builder programs only).
	Arg 1, 2, 3:	VAR, ANY, NR	12	(Total of 10 sets of the Value, Program and Arg fields).
DYN_ANNOUN	Phrase number:	VAR, NUM (E), R	12	
EWT	EWT Input:	VAR, NUM, R	12	
	Calculated Output	VAR, R	12	
	Weighting Index:	10 to 300, R	3	
	Resolution:	Minutes, Second, R	7	
	Rounding:	Nearest, Up, Down, R	7	
EXECUTE	Application:	AN (E), R	12	(Existing Script Builder programs only).
	Arguments:	ANY, VAR, NR	24	(Total of 10 arguments).

Continued on next page

Table C-4. Actions — Continued

		Valid Inputs	Max. length	Comments
GET_DIALP	Phrase Tag	PHR(E), R	50	
	Input:	1 digit: 2, 5, 8 1 digit: 1,4,7,0 1 digit: 1-3 1 digit: 1-5 1-3 digits: 0-9 1-5 digits: 0-9 touch tones		
	Consolidate responses into variable	VAR, R	12	
	Talkfile	Vector Phrases See "" on page C-6	4	Choice of valid talkfiles depending on installed languages
	Confirmation:	Field, Overall, None		
	Time limit per response	1-99, R	2	
GET_DIGT	Number of digits to collect:	1 to 24, R	2	
	Load digits into variable:	VAR,R	12	
GET_SPCH	Talkfile:	TKF (E), R	4	

Continued on next page

Table C-4. Actions — Continued

		Valid Inputs	Max. length	Comments
GET_SPCH	Phrase Tag	PHR(E), R	50	
	Input:	yes-no 1 digit:1-3 1 digit:1-5 1 digit:0-9 1 digit: 0-31 2 digits-exact 3 digits-exact 4 digits-exact 5 digits-exact 6 digits-exact 7digits-exact 8 digits-exact 9 digits-exact 10 digits-exact 1-3 digits:0-9 1-5 digits:0-9 1-8 digits: 0-9 1-24 digits:0-9 4-14 digits: 0-9 8-16 digits:0-9 Touch Tones		yes returns a value of 1 no returns a value of 0
	Talkfile	Vector Phrases See "" on page C-6	4	Choice of valid talkfiles depending on installed languages
	Confirmation:	Field, Overall, None, R	7	
	Time limit per response	1-99, R	2	
GLOBAL	Non-configurable			

Continued on next page

Table C-4. Actions — Continued

		Valid Inputs	Max. length	Comments
GOTO	Vector/Step:	Vector, Step, R	6	
	Vector/Step#:	VEC, VAR, R	12	
	Variable:	VAR, R	12	
	Operator:	C, R	2	
	Value:	NUM, -,NUM, VAR, R	24	
HANG_ACT	Vector number:	VEC (E), R	3	
LOOK_UP	Routing table name:	AN (E), R	10	(Existing Routing table names only).
	Lookup field:	VAR, R	12	
	Number of matches found:	VAR, NR	12	
	Data field 1:	VAR, NR	12	
	Data field 2:	VAR, NR	12	
MENU	Prompt Phrase	PHR (E), NR	50	

Continued on next page

Table C-4. Actions — Continued

MENU		Valid Inputs	Max. length	Comments
MENU	Talkfile	TKF(E), R Vector Phrases See "" on page C-6	4	Choice of valid talkfiles depending on installed languages
	Num digits to collect: Min	1 to 24, R	2	
	Num digits to collect: Max	1 to 24, R	2	
	Time to wait for input: 1st digit	NUM, R	2	
	Time to wait for input: Next digit(s)	NUM, R	2	
	Input Variable	VAR, NR	12	
	Output Variable	VAR, NR	12	
	Valid Input	NUM, *, A, B, C, D, n, s, e, t, r, q, NR	16	
	Output Value	ANY	16	
	Goto Vector	VEC, CONT, NR	4	10 sets of input, output vectors, & goto vector sets.
	Confirm input	Yes, No, R	3	
	Input not on list phrase	PHR (E), NR	50	
	Input not on list Max # of tries	1 to 99, R	2	
	Input not on list output value	ANY, NR	16	
	Input not on list Goto Vector	VEC, CONT, R	4	
MENU	Initial timeout phrase	PHR (E), NR	50	

Continued on next page

Table C-4. Actions — Continued

		Valid Inputs	Max. length	Comments
	Max # of tries	1 to 99,R	2	
	Output value	ANY, NR	16	
	Goto Vector	VEC, CONT, R	4	
	Too few digits phrase	PHR (E), NR	50	
	Max# of tries	1 to 99, R	2	
	Output value	ANY, NR	16	
	Goto Vector	VEC,CONT,R	4	
	No more tries phrase	PHR (E), NR	50	
MSG_DROP	Mailbox:	VAR, NUM (E), R	12	(NUM must represent an existing mailbox number).
	Argument A:	ANY, NR	24	
	Argument B:	ANY, NR	24	
	Argument C:	ANY, NR	24	
	Goto Vector	VAR, VEC, NR	12	
OFF_HOOK	Non-configurable			
QUIT	Non-configurable			
REPORT	Variable	VAR, R	12	
SCHEDULE	Start/During	Start,During, NR	6	Required if using the row
	HR	00 to 23, *, NR	2	
	MN	00 to 59, *, NR	2	
	Day	Mon,Tue,Wed,Thu ,Fri,Sat, Sun,M-F, 1 to 31, *, NR	3	
	Month	*,MONTH, NR	3	
SCHEDULE	Year	NUM, *, NR	4	Current year and the next 4 years

Continued on next page

Table C-4. Actions — Continued

		Valid Inputs	Max. length	Comments
	Vector	VEC, NR	3	Required if using the row
SET	Variable:	VAR, R	12	
	Operator:	O, R	1	
	Value:	ANY, VAR, R	24	
SPCH_ADM	Talkfile:	6100, 6104, 6105	4	These talkfile numbers change per language.
	Phrase number:	VAR, 10 to 65535, NR	12	
SPEAK_NUM	Number:	VAR, NUM, R	24	
	Speak as:	Number, Character, R	9	
SWITCH	Variable:	VAR, R	12	
	Value:	ANY, NR	24	
	Vector number:	VEC, NR	3	(Total of 11 sets of the Value and Vector number fields).
TRANSFER	Extension:	NUM, VAR, R	24	
TRANSCRIBE (Transcribe)	Mailbox:	VAR, NUM (E), NR	12	(NUM must represent an existing mailbox number).

Table C-5. Vector Administration

		Valid Inputs	Max. length	Comments
Vector Worksheet	Vector name:	ANY, NR	14	
	Description:	ANY, NR	40	
	Action:	ACT, NR	9	(Total of 14 fields).
Help Index	Help key word:	ANY, NR	25	
Copy Vector	Copy from Vector	VEC (E), R	3	
	To Vector	VEC (NE), R	3	
	Vector Name	ANY, NR	14	
	Description	ANY, NR	40	

Table C-6. Speech Administration

		Valid Inputs	Max. length	Comments
Add New Phrase	Phrase number:	10 to 65535 (NE), R	5	(Unused phrase number only).
	Phrase tag:	PHR (NE), R	50	(Unused phrase tag only).
	Phrase text:	ANY, NR	50 x 5 lines	
Change Base Language	Base language	TKF (E), R	2	Any <i>installed</i> language
Edit Phrase	Phrase tag:	PHR (NE), R	50	(Unused phrase tag only).
	Phrase text:	ANY	50 x 5 lines	
Copy Phrase	From Phrase Tag	PHR (E) ,R	50	
	To Phrase Tag	PHR (NE) ,R	50	
	To Phrase Number	10 to 65535, (NE) ,R	5	

Continued on next page

Table C-6. Speech Administration — Continued

		Valid Inputs	Max. length	Comments
Record Phrase	Code rate:	ADPCM16, ADPCM32, PCM64, CELP16, R	7	
Dial Number	Telephone number:	NUM, -, R	24	
	Channel:	0 to 99, R	2	
Password for Speech Administration	Password	TT, NR	16	
Add New Phrase to Talkfile	(Same as Add New Phrase)	(Same as Add New Phrase)	(Same as Add New Phrase)	Activated by pressing the ADD-PHR key while defining either the ANNOUNCE or MENU action.

Table C-7. Report Generation

		Valid Inputs	Max. length	Comments
Call Detail	Day:	D, R	9	
	Caller ID:	all, last, summary, 1 to 32768, R	5	
Event Count	Day:	D, R	9	
	List by:	vector, variable, R	8	
Event Detail	Day:	D, R	9	
	Variable:	VAR, all, R	12	

Continued on next page

Table C-7. Report Generation — Continued

		Valid Inputs	Max. length	Comments
Message Count	Mailbox ID:	AN (E), all, R	6	(Existing mailbox ID only).
Message Download	Mailbox ID:	AN (E), all, R		
Message Log	Day:	MM/DD/YY (E), Today, Yesterday, R	9	
	Mailbox ID:	AN (E), all, R	6	(Existing mailbox ID only).
	Type:	MESSAGE, SAVED, all, DELETED, R	8	
Vector Profile	Vector:	VEC, all, 0, R	3	
	Database:	DEVELOPMENTR UNTIME PREV_ RUNTIME, R	12	
Vector Map	Selection Criteria:	vector, channel, VDN, R	7	
	Selection Argument:	0-99999, all, R	5	
	Database:	DEVELOPMENTR UNTIME PREV_ RUNTIME, R	12	
Routing Table	Routing table name:	AN (E), R	10	(Existing routing table name only).
Traffic Report	Day:	MM/DD/YY (E), Today, Yesterday, R	9	
	Hours:	0 to 23, all, R	5	
Vector Usage	Day:	D, R	9	

Continued on next page

Table C-7. Report Generation — Continued

		Valid Inputs	Max. length	Comments
Vector Usage	Vector:	0, VEC, All, R	7	
Agent Callback Count	Day For Report	MM/DD/YY (E), Today, R	9	
Transcription Detail	Report Name	AN, R	30	
	Print Automatically	Y, N, R	1	
	Description	AN, NR	50	
	Day For Report	MM/DD/YY (E), Today, NR	9	
	Title	AN, NR	20	12 sets of Title, Display, Colum n Width and Format
	Display	0 to 12, N, R	2	
	Column Width	1 to 99, R	2	
	Format	DF, R	16	
	Type	CT, NR	18	6 sets of Type and Format
	Format	CF, NR	16	
	Column Type	CT, NR	18	7 sets of Column Type, Operator, Value, and Format
	Operator	C, NR	2	
	Value	ANY, NR	20	
	Format	CF, NR	16	

Table C-8. Report Scheduling

		Valid Inputs	Max. length	Comments
Report Scheduling Options	Number of days to archive:	0 to 7, R	1	

Table C-9. Callback Messaging Administration

		Valid Inputs	Max. length	Comments
Create Mailbox	Mailbox Name	ANY, NR	24	
	Mailbox ID:	NUM (NE) (0 not allowed) R	6	(Unused mailbox number only).
	Password:	NUM, R	6	
	Mailbox Priority	0 to 5,R	1	
	Talkfile	TKF(E), R Message Phrases See "" on page C-6	4	Choice of valid talkfiles depending on installed languages
	Transcriber Welcome Phrase	PHR (E), NR	50	
	Agent access number:	TT,NR	10	
	Treat as outside number	Yes, No, R	3	
	Outside Line Access Code	TT, NR	10	
	Country code	NUM, NR	4	
	Time to wait for answer	NUM, R	4	

Continued on next page

Table C-9. Callback Messaging Administration — Continued

		Valid Inputs	Max. length	Comments
Create Mailbox	Message Retry Interval	1 to 999, R	3	
	Use Dial Pulse Recognition	Yes, No, R	3	
	Use Speech Recognition	Yes, No, R	3	
	MWL Extension:	NUM, NR	10	
	Minutes	1 to 99, NR	2	
	Hours	1 to 99, NR	2	
	Days	1 to 99, NR	2	
	Max Messages	NUM, NR	5	
	Forward Messages into Mailbox	AN (E), NR	6	(Existing mailbox ID only)
	Caller goodbye message	PHR (E), NR	50	
	Type:	Data, Record, Sched, NR	6	
	Use dial pulse recognition	Yes, No, R	3	
	Use speech recognition	Yes, No, R	3	
Data Configuration	Phrase Tag	PHR (E), NR	50	
	Response Limits Minimum	0 to 24, R	2	
	Response Limits Maximum	0 to 24, R	2	
	Have Caller Confirm?	Yes, No, R	3	
	Segment Required to Save Message?	Yes, No, R	3	
	Playback to transcriber?	Yes, No, R	3	

Continued on next page

Table C-9. Callback Messaging Administration — Continued

		Valid Inputs	Max. length	Comments
	Treat as Display Field?	Yes, No, R	3	
	Treat as Phone Field?	Yes, No, R	3	
	Portion	Internal Area code Subscriber Country Code (R)	12	
	Enable Automatic Launch?	Yes, No, R	3	
	Message Treatment	None, Delete, Save, R	6	
	Passed Parameter?	Yes, No, R	3	
	Argument	A, B, C, NR	1	
Record Configuration	Phrase Tag	PHR (E), NR	50	
	Response Limits Minimum	0 to 600 ,R	3	
	Response Limits Maximum	0 to 600, R	3	
	Recording Quality	High, Low, R	4	
	Have Caller Confirm?	Yes, No, R	3	
	Segment Required to Save Message?	Yes, No, R	3	
	Playback to Transcriber?	Yes, No, R	3	
Inform Configuration	Phrase Tag	PHR (E), R		
Schedule Configuration	Phrase Tag	PHR (E), NR	50	

Continued on next page

Table C-9. Callback Messaging Administration — Continued

		Valid Inputs	Max. length	Comments
	Have Caller Confirm?	Yes, No, R	3	
	Segment Required to Save Message?	Yes, No, R	3	
	Playback to Transcriber?	Yes, No, R	3	
Copy Mailbox	From Mailbox ID	NUM (E), R	6	(Existing Mailbox ID)
	To Mailbox ID	NUM (NE), R	6	(Not existing Mailbox ID)
	Mailbox Name	ANY, NR	24	
Edit Mailbox	Mailbox Name	ANY, NR	24	
	Password:	NUM, NR	6	
	Mailbox Priority	0 to 5,R	1	
	Talkfile	Message Phrases See "" on page C-6	4	Choice of valid talkfiles depending on installed languages
	Transcriber Welcome Phrase	PHR (E), NR	50	
	Agent access number:	TT,NR	10	
	Treat as outside number:	Yes, No, R	3	
	Outside Line Access Code	TT, NR	10	
	Time to Wait For Answer	NUM, R	4	
	Message Retry Interval	1 to 999, R	3	
	Use Dial Pulse Recognition	Yes, No, R	3	

Continued on next page

Table C-9. Callback Messaging Administration — Continued

		Valid Inputs	Max. length	Comments
Edit Mailbox	Use Speech Recognition	Yes, No, R	3	
	MWL Extension:	NUM, NR	10	
	Minutes	1 to 99, NR	2	
	Hours	1 to 99, NR	2	
	Days	1 to 99, NR	2	
	Max Messages	NUM, NR	5	
	Country code	NUM, NR	4	
	Forward Messages into Mailbox	AN (E), NR	6	(Existing mailbox ID only)
	Caller goodbye message	PHR (E), NR	50	
	Type:	Data, Record, Sched, NR	6	
Global Settings for All Message Drop Mailboxes	Channel Access Time	1 to 999, AUTO, R	4	
	Agent Access Channel:	0 to 99, NR	20	
	Force 'Press 1" for agent callback pickup	Yes, No, R	3	
	Speak transcription segment number	Yes, No, R	3	
	Play message header information	A, M, D, d, T, E, N (R)	1	
	Number of confirmation chances	NUM, R	1	

Continued on next page

Table C-9. Callback Messaging Administration — Continued

		Valid Inputs	Max. length	Comments
Global Settings for All Message Drop Mailboxes	Time format	12, 24 (R)	2	12- or 24-hour clock
	Allow agents to reschedule	Yes, No, R	3	
	Immediately	Yes, No, R	3	
	Later Today	Yes, No, R	3	
	Later Date	Yes, No, R	3	
	Callback Conference Time	NUM, NR	4	
	Allow agents to classify callbacks	Yes, No, R	3	
Agent Callback Hours	Hours:	01 to 12, R	2	
	Minutes:	00 to 59, R	2	
	Indicator:	AM, PM, R	2	(Total of 14 of the above three fields).

Table C-10. Custom Call Routing

		Valid Inputs	Max. length	Comments
Add Table	Routing table name:	AN (NE), R	10	(Unused Routing table name only).
	Approx. Max.# of Records	100-25000, R	5	
	Description:	ANY	40	

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Table C-10. Custom Call Routing — Continued

		Valid Inputs	Max. length	Comments
Import/Export Routing Table	Import/Export	Import, Export, R	6	
	Routing table name:	AN (E), R	10	(Existing routing table name only)
	Drive:	A, B, R	1	
	Path:	AN, /, ., R	50	
	Filename:	AN, -, ., R	12	
	Field delimiter:	, %, &, -, , , ;, ,, R	1	
	Filter non-numeric:	Y, N, R	1	
Record Administration	Routing table name:	AN (E), R	10	(Existing routing table name only).
	Lookup field:	ANY (NE), R	24	
	Data field 1:	ANY, NR	24	
	Data field 2:	ANY, NR	24	
Edit/Delete Record	Routing table name:	AN (E), R	10	(Existing routing table name only).
	Lookup field:	ANY (E), NR	24	
Record in Routing Table	Data field 1:	ANY, NR	24	
	Data field 2:	ANY, NR	24	

Table C-11. System Backup/Restore

		Valid Inputs	Max. length	Comments
Restore Vector Database	UNIX or DOS Format	UNIX, DOS, R	4	
	Drive	0, 1, R	1	
Backup Vector DataBase	UNIX or DOS Format	UNIX, DOS, R	4	
	Drive	0, 1, R	1	
Speech Backup/Restore	Backup or Restore	Backup, Restore, R	7	
	Talkfile	(US English) 6104, 6105, 6100	3	These talkfile numbers change per language.
	Drive	0, 1, R	1	
Mailbox Configuration Backup/Restore	Backup or Restore	Backup, Restore	7	
	Drive	0, 1, R	1	
Format Floppy Disk	UNIX or DOS Format	UNIX, DOS, R	4	
	Drive	0, 1, R	1	
Restore Development Vector Database	UNIX or DOS Format	UNIX, DOS, R	4	
	Drive	0,1,R	1	
	Restore Phrase Database Also?	Y, N, R	1	
Restore Speech	Drive	0,1,R	1	
	Talkfile	6104, 6105, R	3	These talkfile numbers change per language
Restore Mailbox Configuration	Drive	0, 1, R	1	
Copy file to/from diskette	Copy:	DISK-TO-FILE,FILE-TO-DISK,R	12	

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Table C-11. System Backup/Restore — *Continued*

		Valid Inputs	Max. length	Comments
Copy file to/from diskette	File name on diskette	AN,-,.,R	20	
	DOS or UNIX format	DOS, UNIX, R	4	
	Drive 0 or 1	0,1,R	1	
	Filename on hard drive	AN,-,.,R	20	
	Directory name	AN,1,.,R	50	

Table C-12. Variable Administration

		Valid Inputs	Max. length	Comments
Add New Variable	Variable Name	AN, _ (NE), R	11	
Edit Variable	Variable Name	AN, _ (NE), R	11	

Reentering Customer Assist Care Center

D

Reentering Customer Assist Care Center after Executing a Script Builder Application

Version 6.0 of Customer Assist Care Center accepts up to 8 variable arguments with each call it receives from another CONVERSANT application if the application was created with Script Builder, Lucent's application-development tool. By passing arguments concurrently with call control, you can dictate how Customer Assist Care Center responds to callers who have already performed other activities on the platform.

Valid Arguments

Arguments can include: vector number, caller number, language, and five other items of information. The first three arguments perform specific functions, while the remaining five pass general information. Specifically:

- Argument 1: (vector number): lets a call bypass the `setup` vector and activate a particular vector right away.
- Argument 2: (caller number) allows Customer Assist Care Center reports to track a call as it passes between CONVERSANT vectors and Script Builder applications.
- Arguments 3: (language) allows Customer Assist Care Center to respond in the specified language. The following are the values passed for the languages:

Table D-1. Language Values

Value	Language
01	Australian English

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Table D-1. Language Values — Continued

Value	Language
02	Brazilian Portuguese
03	Canadian French
04	Castilian Spanish
05	Columbian Spanish
06	Dutch
07	European French
08	German
09	Japanese
10	UK English
11	US English

Continued on next page

**NOTE:**

If the language is not passed back to the Customer Assist Care Center or if it is invalid, the base language will be used.

- 4 to 8: (%data1 to %data5) allows you to pass information to the Customer Assist Care Center variables %data1, %data2, %data3, %data4, and %data5.

Example

The following example illustrates how to start a Script Builder application from Customer Assist Care Center, pass caller information to the Script Builder application, and return call control to Customer Assist Care Center when the Script Builder application concludes.

STEP 1: Set Up the EXECUTE Action to Invoke a Script Builder Application

With the EXECUTE action, a CONVERSANT vector can transfer call control to any Script Builder application installed on the system. By passing the caller number to the Script Builder application along with the call, Customer Assist Care Center can track the caller's activities on a single report. By passing the language value it would allow the call to be continually handled in the chosen language.

- a. Select Create New Vector from the Vector Configuration menu. Press **(ENTER)**. A CONVERSANT vector worksheet will appear.

- b. Name your vector in the Vector Name field. Press **ENTER**.
- c. Optionally, enter a description of this vector in the Description field. Press **ENTER**.



NOTE:

Vector names and descriptions are for reference only; they do not affect the handling of calls.

- d. Move to the column marked Action. Action step numbers appear under the first column, labeled Step.
- e. On the first available line, press CHG-KEYS **F8** and CHOICES **F2** and select EXECUTE from the list.
- f. Complete the definition form that appears. Use the following parameters:
 - Program: <name of Script Builder program> (Program name is any valid and installed Script Builder program).
 - Argument 1: *%caller_num* (Caller_num is the optional Customer Assist Care Center system-generated caller serial number used when reentering Customer Assist Care Center to link reporting information to the original call. Passing the wrong caller number will affect the accuracy of Customer Assist Care Center reports).
 - Argument 3: *%language* (Language is the optional Customer Assist Care Center value used to determine the language being used. Passing the incorrect language will cause the system to respond to the caller in the incorrect language or the base language.)
 - Return Value: *%return_vlu* (Return value is the value set if the execute fails. The system sets this value to 1 if no application with the given name is installed; it sets this value to 2 if there is not enough space to fill all arguments.)
- g. Press CLOSE **F3**.
- h. Press CHG-KEYS **F8** and SAVE **F3** to save your CONVERSANT vector.

**STEP 2: Modify a Script Builder Application
to Accept Arguments from
Customer Assist Care Center**

Any Script Builder application can be modified to accept a caller number and other arguments when it is activated by Customer Assist Care Center. The following Script Builder program fragment illustrates how to modify a Script

Builder application. You do not need to modify the Script Builder application if callers will not be reentering Customer Assist Care Center.

start:

1. External Function

Function Name: getarg

Use Arguments: 2 caller_num 25

2. External Function

Function Name: getarg

Use Arguments 3 language 25

body of program

- Number of arguments being passed: 2 (for caller_num) or 3 (for language)
- Address the argument should be placed: caller_num (can use any valid Script Builder variable name)
- Number of bytes to gather: 25 (25 = 24 bytes for variable + 1bytes for overhead).



NOTE:

getarg is a standard Script Builder external function that captures arguments from the passed space from tsm 'exec' function.

STEP 3: Modify the Script Builder

Application to Execute

Customer Assist Care Center

Any Script Builder application can be modified to execute Customer Assist Care Center when the Script Builder application ends. If you want Customer Assist Care Center to respond with a specific CONVERSANT vector, send the vector number as an argument. If Customer Assist Care Center started the Script Builder application and passed a caller number to it originally, you must pass the caller number back to Customer Assist Care Center so that its reports can classify the caller as a returning, rather than a new, caller. If the language value is passed to the Script Builder application, it should be passed back to ensure that the same language is used. Optionally, use the variables %data1 - %data5 to pass additional values to Customer Assist Care Center.

Each time Customer Assist Care Center starts, it determines whether or not it was "exec'ed" by another application. If it was, it checks to see which of the 8 parameters, listed as arguments below, has a value. If a parameter has a value, then Customer Assist Care Center assigns the value to the appropriate variable. This operation occurs automatically and does not require any additional setup, configuration, or programming.

The following Script Builder program fragment illustrates how to modify a Script Builder application to execute a CONVERSANT vector:

```
20. Set Field Value
    Field: vector_number = 10
21. External Action: Execute
    Application_Name: "ccc"
    Write_Call_Data_Record: "yes"
    Argument_1: vector_number
    Argument_2: caller_num
    Argument_3: language
    Argument_4: data1
    Argument_5: data2
    Argument_6: data3
    Argument_7: data4
    Argument_8: data5
End External Action
```

- External Action: Use the standard EXECUTE action.
- Application Name: Use "ccc" for Customer Assist Care Center.
- Write_Call_Data_Record: "yes" or "no" based on preference.
- Argument_1: the number of the vector you wish to start when Customer Assist Care Center starts. Without this argument, Customer Assist Care Center will start with vector 0 and route to the vector designated for the current channel in CHAN_ASN.
- Argument_2: the caller number Customer Assist Care Center originally passed to the Script Builder application (if applicable). By returning this value, you direct Customer Assist Care Center to cross-reference the new call with the original call.
- Argument_3: the language the Customer Assist Care Center passed to the Script Builder application originally. (if applicable)
- Argument_4 - Argument_8: optional values to pass. The arguments are specified by a Script Builder field name or a string enclosed in quotation marks. Customer Assist Care Center fills the variables %data1, %data2, %data3, %data4 or %data5 with these values based solely on the order it receives them; specifically, it places Argument_8 in the %data5 variable, Argument_7 in %data4, etc. The application passes empty or unspecified arguments that precede a non-empty argument as empty (null) strings, while it does not pass empty arguments following the last non-zero entry.

⇒ NOTE:

In the preceding example, Set Field Value is used to demonstrate how to identify a CONVERSANT vector to activate. Any variable

name can be used, but the order that this argument and the other arguments are received is fixed.



CAUTION:

There is a limit to the size of a Customer Assist Care Center variable of 24 characters. Passing variables longer than 24 characters may corrupt the application's data space.

Reentering Customer Assist Care Center After Returning Data to the DEFINITY

Valid Arguments

Customer Assist Care Center provides the ability to load a value into the variable `%caller_num` (Caller Number). This allows Customer Assist Care Center reports to trace a call as it passes between DEFINITY and CONVERSANT vectors.

Example

The following example illustrates how to start a call-center application from Customer Assist Care Center, pass caller information to the DEFINITY vector, and return call control, via the Converse step, to a CONVERSANT vector. This technique might be used in applications that require more than one call appearance on the CONVERSANT during a single call. Consider the following cases:

- CASE A: The caller hears a Delay Announcement in the CONVERSANT and chooses to leave a message for callback. The caller is then returned to DEFINITY vector control, de-queued, and returned to the CONVERSANT for a Message Drop.
- CASE B: The caller hears a series of Dynamic Announcements during the course of being in queue under DEFINITY vector control.

Step 1: Customer Assist Care Center Assigns a Caller Number (`%caller_num`) During the First Appearance of a Call to the CONVERSANT.

The system automatically assigns a caller number to a call when the call first appears on the CONVERSANT System. The system uses this caller number only for reporting purposes, not for call handling.

Step 2: Complete your CONVERSANT Vector Series with a Data Return to the DEFINITY Vector

With the DATA_RTN action, a CONVERSANT vector can transfer call control, along with several items of information, back to the initiating DEFINITY. By passing the caller number to the DEFINITY vector along with the call, Customer Assist Care Center can track the caller's activities on a single report if the call is subsequently sent back to the CONVERSANT. For Case A above:

- a. The next-to-last step in your CONVERSANT vector should be a MENU action that prompts the caller to select the way to proceed (for example, 1 to remain in queue, 2 to leave a message for callback loaded into %data 1).
- b. Define DATA_RTN as the final action in your vector as follows:
 - Feature Access Code: to match the PBX
 - Series of Return Values (for this example): %data1 (caller response) and %caller_num (system-assigned caller number)

Use delimiters if you expect variable length arguments.

Step 3: Append your DEFINITY Vector to Collect the Data Returned from the CONVERSANT

- a. Most likely, the last step in your DEFINITY vector was a Converse step that passed VDN and queue position information to the CONVERSANT vector (VDN to identify the application, and queue position to calculate the caller's anticipated delay). Include a Wait step immediately following this Converse step (for example, wait 0 seconds hearing silence).
- b. Define *collect* as the next step in the DEFINITY vector to collect the response to the CONVERSANT vector's menu of call treatment options. (i.e. collect 1 digit after announcement extension none).
- c. Define a *route* step to handle requests for callback messaging (for example, route to vdn (other) if digits equal 2).
- d. Define additional steps in the DEFINITY vector to serve callers who want to remain in queue. For example, you might define a series of announcements and Wait steps with music, etc.
- e. Create a new DEFINITY vector (VDN Other) that will send the caller back to the CONVERSANT to drop a message. Set up this new vector to collect caller number from the CONVERSANT and pass the call back to CONVERSANT to drop a message as follows:

wait 0 seconds hearing silence

collect X digits after announcement extension none (X must equal the maximum digit length of caller number expected)

converse on Conversant Split passing vdn (new vdn indicating message drop)
and digits (which holds caller number)

Step 4: Create a CONVERSANT Vector that Accepts VDN from the DEFINITY

⇒ NOTE:

You may already have created a vector to activate other applications based on VDN. If so, simply include the VDN for message drop in its SWITCH action.

- a. Select Create New Vector from the Vector Configuration Menu. Press **(ENTER)**. A CONVERSANT vector worksheet will appear.
- b. Name your vector in the Vector Name field and press **(ENTER)**.
- c. Optionally, enter a description of this vector in the Description field. Press **(ENTER)**.
- d. Move to the column marked Action.
- e. On the first available line, press CHG-KEYS **[F8]** and CHOICES **[F2]**, and select CONVERSE from the list.
- f. Complete the definition form that appears with the following:
 - Number of digits: the number of digits expected for VDN
 - Variable: a variable (*%vdn*) to hold the value of VDN
- g. On the next available line, press CHG-KEYS **[F8]** and CHOICES **[F2]**, and select SWITCH from the list.
- h. Complete the definition form that appears with the following:
 - Variable: select the variable holding the value of VDN (*%vdn*)
 - Value: / Vector: In the spaces provided, define the vectors to initiate based on a VDN received

Step 5: Create a CONVERSANT Vector that Accepts Caller Number as an Argument

- a. Select Create New Vector from the Vector Configuration menu. Press **(ENTER)**. A CONVERSANT vector worksheet will appear.
- b. Name your vector in the Vector Name field and press **(ENTER)**.
- c. Optionally, enter a description of this vector in the Description field. Press **(ENTER)**.
- d. Move to the column marked Action.
- e. On the first available line, press CHG-KEYS **[F8]** and CHOICES **[F2]**, and select CONVERSE from the list.
- f. Complete the definition form that appears with the following:

- Number of digits: the number of digits expected for caller number
 - Variable: a variable (*%caller_num*) to hold the value of caller number
- g. On the next available line, press CHG-KEYS **[F8]** and CHOICES **[F2]**, and select MSG_DROP from the list.
- h. Complete the definition form that appears with the following:
- Mailbox Number: the number or the variable (for example, *%vdn*)
 - Vector to Jump to (optional): the number of a vector to continue call processing should the caller opt to do so following the message drop

Because the caller number is retained, the System Administrator can use reports, including the Call Detail report, to track a single caller's activity through multiple call appearances. Multiple call appearances, however, are also represented on reports by new caller numbers assigned each time the call returns to the CONVERSANT.

Mailbox and Speech Conversion Utility



This document describes the Mailbox and Speech Conversion utility, an accessory for versions 1.0, 1.1, 1.2, and 2.0 of the CONVERSANT Solutions for DEFINITY Call Center software.

Overview

The Mailbox and Speech Conversion utility helps you transfer Callback Messaging mailbox settings and recorded speech from version 1.0, 1.1, 1.2, or 2.0 of the CONVERSANT Solutions for DEFINITY software to version 3.0 or greater.

The utility enhances the CONVERSANT Solutions software by adding two options to the System Backup/Restore menu: Backup Mailbox Configuration and Backup Speech for 6.0+. By using these to backup your Mailbox Configuration you can preserve parameters you established for Callback Messaging before you replaced your CONVERSANT Solutions software with a newer version. In the same way, you can backup speech phrases for use in a newer version of the software.

Use this utility once, before you upgrade your system, or anytime you want to transfer a mailbox configuration from 1.X or 2.X+ and speech from 1.X and 2.X to 6.0+.

Table E-1. Conversion Overview Table

From Version:	To Version:	Equipment	Steps on Previous Version	Steps on V6.0
CCC V1.X	CACC V6	CVIS 6.0; CACC 6.0; Mailbox and Speech Conversion Utility V2.0 Disk	V1.X - Install utility - Backup speech and mailbox using utility	Restore speech and mailboxes from the "Restore Data from Previous Version of Call Center" menu on V6.0
CCC V2.X	CACC V6	CVIS 6.0; CACC 6.0; Mailbox and Speech Conversion Utility V2.0 Disk	V2.X - Install Utility - Backup speech with utility - Backup mailboxes using backup menu of V2.X	Restore speech and mailboxes from the "Restore Data from Previous Version of Call Center" menu on V6.0
CCC V3.0 CCC V4.0	CACC V6	CVIS 6.0 CACC V6.0	Backup speech and mailboxes from backup speech and mailbox menus of V3.0 or V4.0	Restore speech and mailboxes from the "Restore Data from Previous Version of Call Center" menu on V6.0

Supported Hardware/Software

The Mailbox and Speech Conversion utility for CONVERSANT Solutions for DEFINITY Call Center is supported on these configurations:

CONVERSANT System Hardware

- MAP/40 (up to 24 incoming ports) or MAP/100 (up to 48 incoming ports)
- IVP6 analog interface to G3
- Color monitor

CONVERSANT System Software

- 3.1 or 4.0 CONVERSANT software
- 1.0, 1.1, 1.2, or 2.0 CONVERSANT Solutions for DEFINITY Call Center software

Peripherals:

- Lucent Technologies printer
- Lucent Technologies modem

CONVERSANT Solutions for DEFINITY Call Center software requires additional hardware and system software. Refer to Chapter 4, "Administration", in the document for details.

Installing the Utility

To install the Mailbox and Speech Conversion utility, you must have Version 3.1 or 4.0 of the CONVERSANT system software in place and already be using version 1.0, 1.1, 1.2 or 2.0 of the CONVERSANT Solutions for DEFINITY Call Center software.

⇒ NOTE:

When converting from 1.2 or 2.0 the speech needs to be converted. If you are already using 2.0 or a greater version of the CONVERSANT Solutions software, you do not need to install this utility on mailboxes. Use it for backing up speech phrases.

⇒ NOTE:

Although installing this utility will not disrupt call handling, you should avoid installing this or any other software package during periods of very high call activity.

Use the following procedure:

1. Log into the system as **root**.
2. At the Unix operating system prompt, #, enter **installpkg**.

System response:

Confirm

Please indicate the installation medium you intend to use.

Strike "C" to install from CARTRIDGE TAPE

or "F" to install from FLOPPY DISKETTE.

Strike ESC to stop.

3. Press **f**. If the system prompts you to identify the disk drive you want to use, enter **0** or **1**, as appropriate.

System response:

Confirm

Please insert the floppy disk.

If the program installation requires more than one floppy disk, be sure to insert the disks in the proper order, starting with disk number 1.

After the first floppy disk, instructions will be provided for inserting the remaining floppy disks.

Strike ENTER when ready

or ESC to stop.

4. Insert the Mailbox and Speech Conversion utility diskette and press **ENTER**.

System response:

Installation is in progress -- do not remove the floppy disk.

Searching for the Size file

Install in progress

Transfer in progress - Do not remove the floppy disk.

It is safe to remove the floppy disk.

Copying files...

Installation of CONVERSANT SOLUTIONS 1.X and 2.X to 6.0 Mailbox and Speech Conversion Utility is complete.

The installation of the CONVERSANT SOLUTIONS 1.X and 2.X to 6.0 Mailbox and Speech Conversion Utility Version 2.0 is now complete.

5. Remove the diskette.
6. You have successfully installed the Mailbox and Speech Conversion utility.

Using the Utility

After you install the Mailbox and Speech Conversion utility, you can copy your mailbox configuration to a diskette, in a format suitable for use with the latest version of the CONVERSANT Solutions for DEFINITY Call Center software.

1. Log into the CONVERSANT Solutions Administration interface by following the instructions in "Logging In" on page 2-3. The main menu will appear. (see Figure E-1).

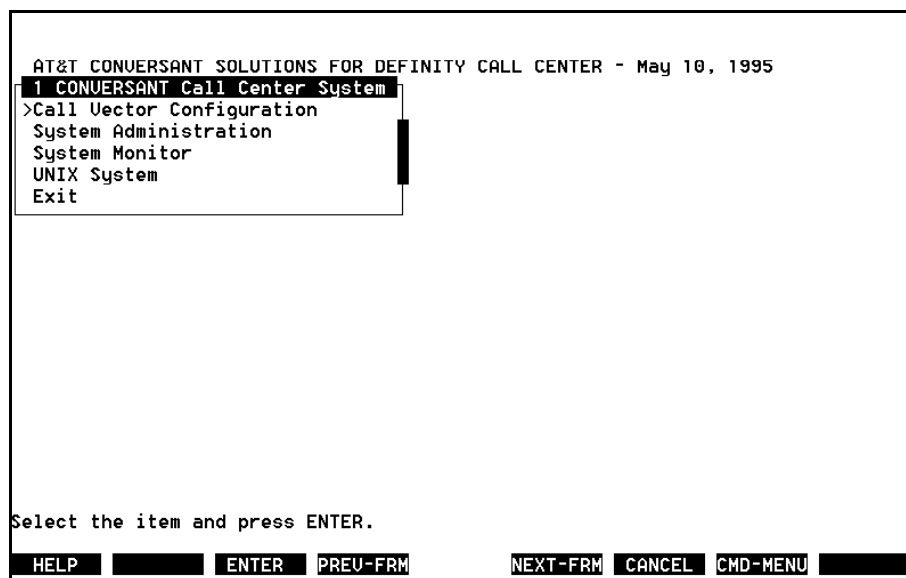


Figure E-1. Main Menu

2. Select System Administration. The System Administration menu will appear (see Figure E-2).

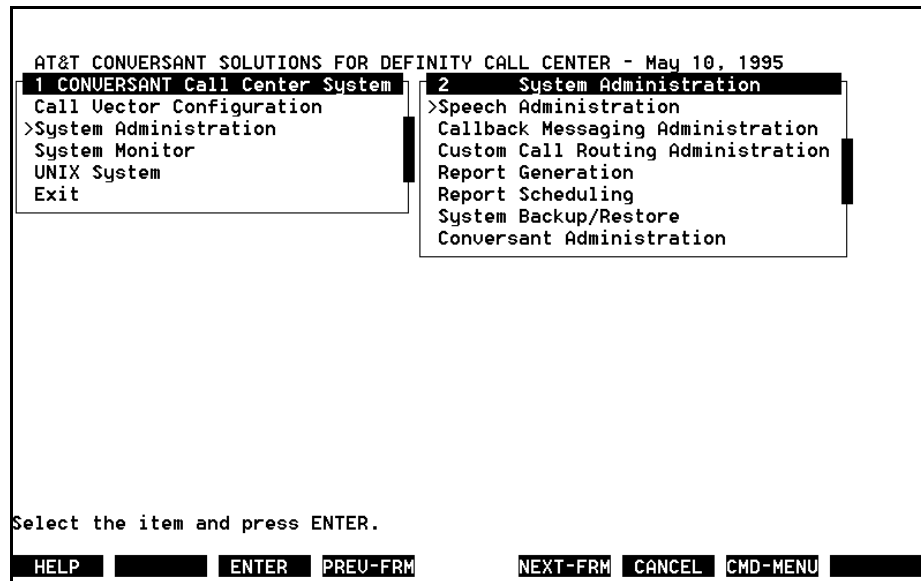


Figure E-2. System Administration Menu

3. Select System Backup/Restore. The System Backup/Restore menu will appear (see Figure E-3).

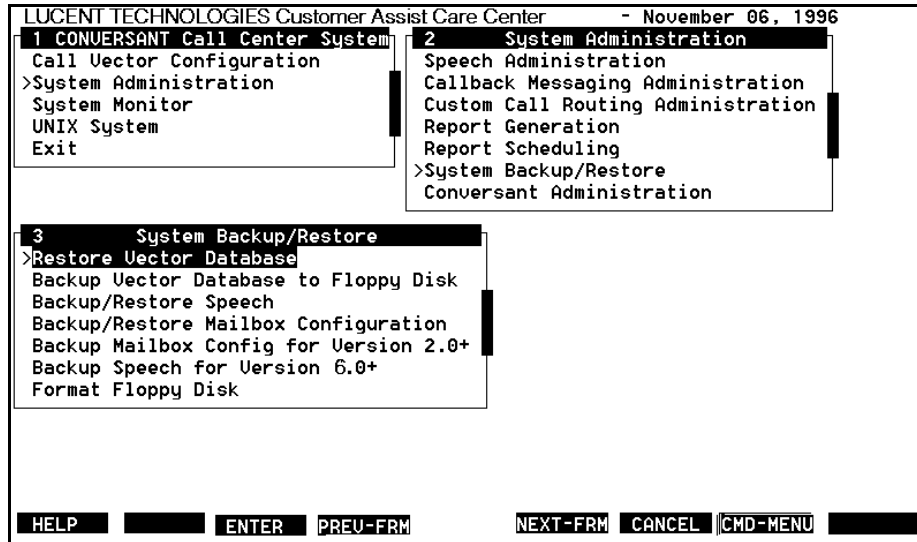


Figure E-3. System Backup/Restore Menu

To Back Up Mailboxes

1. Insert a diskette into drive 0 and select Backup Mailbox Config for for Version 2.0+.
2. When prompted, press **ENTER**. The system will:
 - Acquire the existing data from the Callback Messaging database
 - Convert the data into the version 2.0 format
 - Write the converted data to a diskette.
3. Load the Callback Messaging data onto your upgraded system by choosing Backup/Restore Mailbox Configuration from the System Backup/Restore menu. Refer to "System Backup/Restore" on page 4-115.

To Back Up Speech

1. Insert a diskette into drive 0 and select Backup Speech for Version 6.0+.
2. Select the correct Talkfile numbers and when prompted press **ENTER**. The system will:
 - Acquire the existing data from the phrase database
 - Convert the the phrases to a UNIX file format
 - Write the converted data to a diskette.
3. Load the data on the diskette into your current system following directions in "System Backup/Restore" on page 4-115.

Removing the Utility

If you decide to remove the CONVERSANT Solutions for DEFINITY Call Center software from your system, follow these instructions to remove the Mailbox and Speech Conversion utility too.

If you plan to replace the software with an upgraded version, first be sure to backup your vectors, speech, and mailbox configuration settings by following the instructions in this appendix and "System Backup/Restore" on page 4-115.

Although you must remove the components of Callback Messaging, Custom Call Routing, and the Announcement Platform in a specific order, you can remove the Mailbox and Speech Conversion utility at any time by following these instructions:

1. If you are not already logged in, log into the system as **root**.
2. At the Unix operating system prompt (**#**), enter **removepkg**.
The system will display a list of installed Unix operating system packages numbered 1 to *n*.
3. Enter the number of the CONVERSANT SOLUTIONS 1.X to 2.0 Mailbox and Speech Conversion Utility Version 2.0

System response:

Confirm

Do you really want to remove CONVERSANT
SOLUTIONS 1.X and 2.X to 6.0 Mailbox and Speech
Conversion Utility Version 1.0?

Strike ENTER when ready or ESC to stop.

4. Press **ENTER**.

System response:

Removal of CONVERSANT SOLUTIONS 1.X and 2.X to 6.0
Mailbox and Speech Conversion Utility is complete.

The CONVERSANT SOLUTIONS 1.X and 2.X to 6.0
Mailbox and Speech Conversion Utility Version 2.0
is now removed.

5. You have successfully removed the Mailbox and Speech Conversion Utility.

Abbreviations

A

AAR

Automatic Alternate Routing

AC

alternating current

ACD

Automatic Call Distribution

ADPCM16

Adaptive Differential Pulse Code Modulation at 16 kbps

ADPCM32

Adaptive Differential Pulse Code Modulation at 32 kbps

ADU

asynchronous data unit

ALM-ACK

alarm acknowledge

AN

analog

ANI

Automatic Number Identification

AP

applications processor

ARS

Automatic Route Selection

ASAI

Adjunct/Switch Application Interface

ASCII

American Standard Code for Information Interchange

AUDIX

Audio Information Exchange

AWG

American wire gauge

B

BCMS

Basic Call Management System

BCT

business communications terminal

BHCC

busy-hour call completions

BLF

busy lamp field

BOS

bit-oriented signaling

BRI

basic rate interface

BTU

British thermal unit

C

CAP

cable access panel

CAS

Centralized Attendant Service

CCITT

Consultative Committee for International Telephone and Telegraph

CCMS

common channel message set

CCS

hundred call seconds

CCSA

common control switching arrangement

CELP16

Code Excited Linear Prediction at 16 kbps

CDAP

call detail acquisition and processing

CDM

channel division multiplexing

CDRR

Call Detail Recording and Reporting

CDRU

call detail recording utility

CEM

channel expansion multiplexing

CI	clock input
CMDR	centralized message detail recorder
CMS	Call Management System
CO	central office
COR	class of restriction
COS	class of service
CP	circuit pack
CPE	customer premises equipment
CPN/BN	calling party numbers/billing number
CR	customer ring
CRC	cyclical redundancy checking
CSA	Customer Software Administration or Canadian Safety Association
CSD	customer service document
CSM	Centralized System Management
CSS	center stage switch
CSSO	Customer Software Support Organization
CSU	channel service unit
CT	customer tip

D

DC	direct current
DCE	data communications equipment
DCP	digital communications protocol
DCS	Distributed Communications System
DDC	Direct Department Calling
DDD	direct distance dialing
DID	Direct Inward Dialing
DLDM	data line data module
DMI	digital multiplexed interface
DND	do not disturb
DNIS	Dialed Number Identification Service
DOD	Direct Outward Dialing
DOT	duplication-option terminal
DOSS	delivery operations support system
DRAM	dynamic random access memory
DS1	Digital Service 1
DS1C	Digital Service 1 converter
DSI	digital service interface
DSU	data service unit

DTDM

digital terminal data module

DTE

data terminal equipment

DTMF

dual tone multifrequency

DTS

disk/tape system

DUPN

duplication interface

DXS

Direct Extension Selection

E**E&M**

ear and mouth (Receive and Transmit)

EBCDIC

Extended Binary Coded Decimal Interexchange Code

EFS

enhanced feature set

EI

expansion interface

EIA

Electronic Industries Association

EMI

electromagnetic interference

EPN

expansion port network

EPROM

erasable programmable read only memory

EPSCS

Enhanced Private Switched Communications Services

ESF

extended superframe format

ETN

electronic tandem network

F**FAC**

feature access code

FAS

facility-associated signaling

FCC

Federal Communications Commission

FIC

facility interface codes

FNPA

foreign numbering plan area

FRL

Facilities Restriction Level

FSAC

field support administration center

FX

foreign exchange

G**GPTR**

general purpose tone receiver

GRS

Generalized Route Selection

H**HCMR**

high-capacity minirecorder

HNPA

home numbering plan area

I**IAS**

Inter-PBX Attendant Service

Abbreviations

IC	intercabinet
ICC	intercarrier cable
ICI	incoming call identifier
ICM	Inbound Call Management
ID	identification
IDDD	international direct distance dialing
IE	information element
INADS	Initialization and Administration System
INS	ISDN network service
INWATS	inward Wide Area Telecommunications Service
ISDN	Integrated Services Digital Network
ISN	Information Systems Network
ITP	installation test procedure
IXC	interexchange carrier

K

KBPS	kilobits per second
KHz	kilohertz

L

LAN	local area network
LAPD	link-access protocol D
LDN	listed directory number
LED	light-emitting diode
LSU	local storage unit
LWC	Leave Word Calling

M

MA-UUI	message-associated user-to-user signaling
M-Bus	memory bus
MBPS	megabits per second
MCC	multicarrier cabinet
MCS	Message Center Service
MDM	
modular data module	
MDR	message detail record
MET	multibutton electronic telephone
MHz	megahertz
MIS	management information system
MISCID	miscellaneous identification

MMS

Material Management Services

MOS

message-oriented signaling

MPDM

modular processor data module

MS

Message Server

MSA

message service adjunct

MSL

material stocking location

MSS

mass storage system

MTDM

modular trunk data module

MTP

maintenance tape processor

MTT

multitasking terminal

MWL

message waiting lamp

N**NAU**

network access unit

NCOSS

Network Control Operations Support Center

NCSO

National Customer Support Organization

NFAS

nonfacility-associated signaling

NID

network inward dialing

NPA

numbering plan area

NPE

network processing element

NQC

number of queued calls

NSE

night service extension

NSU

network sharing unit

NTSO

National Technical Service Organization

NXX

public network office code

O**OCM**

Outbound Call Management

OPS

Off-Premises Station

OQT

oldest queued time

OSHA

Occupational Safety and Health Act

OSS

operations support system

P**PBX**

private branch exchange

PC

personal computer

PCM64

Pulse Code Modulation at 64 kbps

PCOL

Personal Central Office Line

PCOLG

Personal Central Office Line group

PCM

pulse code modulated

PCS
Permanent Switched Calls

PDM
processor data module

PDS
premises distribution system

PE
processing element

PEC
price element code

PGN
partitioned group number

PIB
processor interface board

PL
private line

PMS
Property Management System

PN
port network

PNC
port-network control

PPM
periodic pulse metering

PPN
processor port network

PRI
primary rate interface

PSC
premises service consultant

PSDN
packet-switched public data network

PT
personal terminal

Q

QPPCN
quality protection plan change notice

R

RAM
random access memory

RBOC
regional Bell operating company

RCL
restricted call list

RHNPA
remote home numbering plan area

RISC
reduced instruction set computer

RLT
release link trunk

RMSS
removable mass storage subsystem

RNX
private network location code

ROM
read only memory

RPN
routing plan number

RS
recommended standard

RSC
regional support center

RX
receive

S

SAKI
sanity and control interface

SCC
single-carrier cabinet

SCI
Switch Communications Interface

SCO
System Control Office

SCSI
small computer system interface

SDN
Software Defined Network

SDDN
Software Defined Data Network

SID
station identification number

SIT
special information tones

SMDR
Station Message Detail Recording

SN
switch node

SNI
switch node interface

SPE
switch processing element

SPID
service profile identifier

SSI
standard serial interface

STARLAN
Star-Based Local Area Network

STS
Software Technical Support

ST3
Stratum 3 clock board

T

TAAS
Trunk Answer From Any Station

TAC
trunk access code

TC
technical consultant

TCM
traveling class mark

TDM
time-division multiplexed or trunk data module

TEG
Terminating Extension Groups

TOD
time of day

TOPs
task-oriented protocol

TRACS
Translations Recovery, Additions, and Conversions System

TSC
Technical Service Center

TTL
transistor-transistor logic

TTTN
tandem tie-trunk network

TTY
teletypewriter

TX
transmit

U

UAP
usage allocation plan

UCD
Uniform Call Distribution

UCL
unrestricted call list

UDP
Uniform Dial Plan

UPS
uninterruptible power supply

V

VM
voltmeter

Abbreviations

W

WATS

Wide Area Telecommunications Service

Glossary

Numerics

3B2 Message Server

A Lucent Technologies software application that combines voice and data messaging services for voice terminal users whose extensions are connected to a DEFINITY G1 or DEFINITY G3.

800 service

A service in the USA, which allows incoming calls from a certain area or areas to an assigned number for a flat-rate charge based on usage.

A

action

A component of a vector in Customer Assist Care Center that contains specific configurable settings that control the outcome of a call. It will do specific things depending on the action. For example, the ANNOUNCE action will play a phrase to the caller.

ADA_CALC

An action used to approximate how long a caller will wait in queue. This action is available only with DEFINITY G3V3 and earlier switches.

agent

A person who interacts with customers who are calling into the call center or who have been called from the call center. Generally the agent answers customer questions, or in telemarketing cases, sells products or services.

agent access

A feature of the Callback Messaging package that calls agents to deliver new messages to them. This is sometimes referred to as the agent callback.

agent callback

A feature of the Callback Messaging package that calls agents to deliver new messages to them. This is sometimes referred to as the agent access feature.

agent group

Typically, agents with similar abilities and roles are grouped together to handle certain kinds of calls.

analog

The representation of information by means of continuously variable physical quantities such as amplitude, frequency, and phase.

ANNOUNCE

An action used to play a specific recorded message or phrase.

announcement

A recording played to callers.

anticipated delay

The anticipated time a caller, in queue, will have to wait to reach an agent.

application

A collection of vectors, mailboxes, routing tables, switch configurations, Script Builder programs, and anything that is needed to provide a service to users, for example, bulletin boards or auto attendants.

archive database

One of the three vector databases: development database, runtime database, and archive database. When the vectors in the development database are placed in service, the development database becomes the runtime database, and the runtime database becomes the archive database. The archive database is also referred to as the previous runtime database.

area code

A three-digit code designating a "toll" center in the United States, Canada and Mexico. This is also called an NPA, Numbering Plan Area.

argument

Value passed to another program. For example, the EXECUTE action can pass values to a Script Builder program.

Audio Information Exchange (AUDIX)

A fully integrated voice-mail system that can be used with a variety of communications systems to provide call-history data, such as subscriber identification and reason for redirection.

automatic attendant

An application that answers calls and routes the caller to the desired destination or extension. This is also known by its shortened name, auto attendant.

Automatic Call Distributor (ACD)

Automatic Call Distributors add intelligence to Private Branch Exchange (PBX) hardware that routes callers to specific agents based on availability. Additional functionality such as reports and call-center-specific features are often built into ACDs.

Automatic Number Identification (ANI)

The number of the phone that is calling. This is an optional service.

B

base language

The default language that will be used in the Platform Management package and Callback Messaging package.

blind transfer

Transfer of a call to another extension without checking whether the transfer was successful.

bulletin board

A hierarchy of menus that callers navigate through to obtain information.

C

call center

A place where calls are answered and made. A call center typically has numerous agents and an automatic call distributor.

call control

The setting up, monitoring, and tearing down of telephone calls.

Call Management System (CMS)

An application, running on an adjunct processor, that collects information from an Automatic Call Distribution (ACD) unit. CMS enables customers to monitor and manage telemarketing centers by generating reports on the status of agents, splits, trunks, trunk groups, vectors, and vector directory numbers (VDNs), and to partially administer the ACD features for a communications system.

call routing

The routing of calls to the desired destinations, such as extensions, VDNs, or other applications.

call treatment

The handling of calls. For example, queuing the call, playing announcements to the caller, etc.

callback

When the computer calls a person.

callback channel

A channel on the CONVERSANT that is used to call an agent.

Callback Messaging Package

A Customer Assist Care Center package that allows callers to leave messages and allows agents to transcribe the messages and launch callbacks to the customer.

caller information

Information about the caller or input entered by the caller. For example, ANI or caller's account number.

caller number

The unique number assigned by Care Center to each caller that enters the Platform Management package. The number is unique only for the day of the call. It is also known as caller id.

caller-on-hold

A caller that is in queue and waiting for an agent to become free to handle the call.

callflow

A flow diagram that shows the interaction and options available to callers.

central office (CO)

The location housing telephone switching equipment that provides local telephone service and access to toll facilities for long-distance calling.

CHAN_ASN

An action used to route callers to other vectors based on the channel they are on.

channel

A device on the CONVERSANT that allows calls to be handled by answering them, playing messages, and collecting input. It is also referred to as a port or voice channel.

CHG_LANG

An action used to change the language that will be used in the Platform Management package and Callback Messaging package to interact with the caller.

city code

The equivalent to area code in some countries. In some countries, the city code is fixed length while in others it is variable length.

coding rate

The method and speed at which speech is digitized and stored in a file. Examples of coding rates are ADPCM16, PCM64, and CELP16.

computer telephony integration (CTI)

Connection of a computer with a telephone switch that allows the computer to issue switch commands to move calls around.

conference

Connection of three or more people into one phone conversation.

configuration

The hardware and software arrangement that defines the system, product, package, or application and thus determines what it will do.

connection

A path between telephones that allows the transmission of speech and other signals.

console

The monitor and keyboard of the CONVERSANT.

CONVERSANT

The Lucent Technologies product, which includes both hardware and software, that allows CTI applications to be made.

CONVERSANT Administration

The administration of the CONVERSANT product.

CONVERSANT application

A Script Builder, TSM or IRAPI application that runs on the CONVERSANT. Normally, this term refers to Script Builder applications.

CONVERSANT Error Log

A logging system for problems encountered while running the CONVERSANT or CONVERSANT applications.

CONVERSANT Solutions for DEFINITY Call Center

The old name for Customer Assist Care Center for Version 1 through 4.

converse

A DEFINITY vector step that conferences in a channel on the CONVERSANT. This allows the application on that channel to interact with the caller while the DEFINITY still retains control of the call and is capable of dropping the CONVERSANT channel from the conference.

CONVERSE

An action used to collect information that the DEFINITY G3 or ECS R5 switch sends along with a call.

country code

The one- to four-digit code that, in the world numbering plan, uniquely identifies each country or integrated numbering plan in the world.

Custom Call Routing Package

A Customer Assist Care Center package that provides routing information used to route callers to their destination. It can also act as a database to locate other types of information.

customer callback

A feature of the Callback Messaging package that allows agents to launch a call to the customer who left the message being transcribed, either by pressing a button or automatically.

D

Data Interface Process (DIP)

A daemon (continuously running program) that provides Script Builder and TSM with access to databases and the UNIX operating system.

data return

A method used to send information to the DEFINITY G3 or ECS R5 switch along with the call.

Data segment

A segment type in the Callback Messaging package that collects data via touch-tone input, speech recognition input, or dial pulse input, depending on the packages currently loaded.

DATA_RTN

An action used to send information to the DEFINITY G3 or ECS R5 switch along with the call.

database

A collection of data structured and organized in a disciplined fashion so that information of interest can be accessed quickly.

database table

A structure that contains a list of records that contain data. See routing table.

DEFINITY Call Vectoring

A Lucent Technology product.

DEFINITY Enterprise Communications Server (ECS)

A Lucent Technology switch.

DEFINITY G3

A Lucent Technology switch.

development database

One of the three vector databases: development database, runtime database and archive database. The development database contains the administrator's latest edits to the Vector Administration. The development database is not used to handle calls until it is placed in service, at which time it replaces the runtime database.

dial plan

A description of the dialing arrangements for customer use on a network. It is also known as the dialing plan.

dial pulse recognition

The capability of the CONVERSANT to recognize input from a rotary phone, which generates regular momentary interruptions of a direct or alternating current at the sending end. The number of interruptions corresponds to the value of the digits or characters dialed.

Dial Pulse Recognition Package

A Customer Assist Care Center package that enables dial pulse recognition in the Platform Management package and Callback Messaging package.

dial tone

The sound that is heard when you pick up a telephone receiver.

Dialed Number Information Service (DNIS)

A feature of 800 and 900 lines that provides the number the caller dialed to reach the attached computer telephony system.

digital

Use of binary code to represent information.

Direct Inward Dialing (DID)

A feature that allows an incoming call from the public network to reach a specific telephone without attendant assistance. DID calls to DID-restricted telephone lines are routed to an attendant or recorded announcement, depending on the option selected.

disconnect

The breaking or release of a circuit connecting two telephones or data devices. When a caller is disconnected, it means that the computer hung up on the caller.

download

Moving data from a database or configuration onto a file, diskette, or other removable media.

DYN_ANNOU

An action used to play one of many different messages to a single caller.

DYNAMIC

An action used to transfer call control to 1 of up to 10 Script Builder applications depending on the value of a variable.

dynamic announcement

An announcement to a caller that is specific to the caller or the application the caller is currently in.

dynamic port allocation

Assignment of different applications to the same port for different callers based on caller information.

E

estimated wait time

The switch's estimate of how long a caller must wait for an agent in seconds. It is also known as wait time.

Enterprise Communications Server (ECS), DEFINITY

A Lucent Technology switch.

EWI

An action used to convert the switch's estimate of how long a caller must wait for an agent. This action is available only for use with the DEFINITY G3V4 or ECS R5.

EXECUTE

An action used to unconditionally transfer control of a call to a Script Builder application.

execute

Start a program or application. For example, the EXECUTE action can start another Script Builder application.

expected wait time

The switch's estimate of how long a caller must wait for an agent in seconds. It is also known as wait time.

Expert Agent System (EAS)

Optional DEFINITY software that allows routing based on agents' skills.

extension

An additional telephone connected to a line, typically with a switch. Switches typically have many extensions for internal use and some lines to the public network for calls to phone numbers outside the switch.

external caller

A caller calling in from a phone that is not directly connected to the company's switch.

F

feature

A capability of a product to do one or many tasks. For example, transfer calls, play standard announcements, collect speech recognition input, etc.

feature access code (FAC)

A series of touch tones that tells the switch that the caller is trying to use a certain switch feature. Examples of FAC include lighting or extinguishing message waiting lamps and logging into an agent group.

flash hook

The little button on the telephone that the receiver is placed on. When this is pushed quickly, it signals the switch at the other end (central office or PBX) to do something, such as placing the current call on hold. This is also referred to as switch hook.

function key

One of 8 keys on the computer keyboard labeled with the letter F followed by a number. The effect of pressing a particular function key depends on the menu, form, or screen you are in.

G

GET_DIALP

An action used to gather dialed digits via a rotary phone from a caller.

GET_DIGT

An action used to gather touch-tone input from a caller.

GET_SPCH

An action used to gather spoken digits from a caller.

GLOBAL

An action used to initialize Care Center.

GOTO

An action used to move call control to another vector or to another step in the current vector, either unconditionally or if a specific condition is met.

grammar

Valid input options used in speech recognition and dial pulse recognition to restrict caller input within a certain range of numbers that increase the recognition success rate.

H

HANG_ACT

An action used to identify a CONVERSANT vector to launch if the caller leaves the call prematurely (hangs up).

hard port allocation

Assignment of one application to a port so that all callers to that port use the same application.

hold time

The amount of time a caller is waiting to be connected to an agent.

hunt group

A series of telephone lines organized in such a way that if the first line is busy, the next line is hunted, and so on until a free line is found. These lines could be to agents or to channels on the CONVERSANT.

I

Inform segment

A segment type in the Callback Messaging package that speaks an announcement to a caller while the caller is leaving a message.

initial time-out

The maximum amount of time that the application will wait for the caller to enter the first character of input. For example, the MENU action uses an initial time-out. See also interdigit time-out.

intelligent transfer

Transfer of the call to another extension after checking that the destination extension is answered.

interactive voice response (IVR)

A computer that interacts verbally via a phone with a caller. The computer will play announcements and questions to the caller. The caller can enter input using touch tones, a rotary phone, or speech. See VRU.

interdigit time-out

The maximum amount of time that the application will wait for the caller to enter any input character after the first. See also initial time-out.

internal caller

A caller calling in from a phone that is directly connected to the company's switch.

Intuity

A Lucent Technologies product.

K

kernel

The part of a computer operating system that performs basic functions such as switching between tasks.

kernel parameter

Configurations that dictate how the kernel behaves.

key value

The field within a record in the routing table used to identify the record. This value is commonly used to retrieve the record from a routing table. It is also known as a lookup value and primary value.

L

language

The language in which Customer Assist Care Center interacts with callers. Care Center supports a total of 11 languages.

launching an application

Starting an application by executing the program or by routing the call to the appropriate vector.

line

Depending on the context, this word can mean different things. It can mean the physical line between the phone company's central office and a subscriber, the line from the central office to the PBX, or the line from the PBX to an extension/phone.

Line-side T1/E1

A digital transmission link using the T-1 or E-1 standard for digital transmission.

local number

A phone number within the same area code.

LOOK_UP

An action used to refer to a routing table for values associated with a key value the caller specifies.

lookup value

The field within a record in a routing table used to identify the record. This value is commonly used to retrieve the record from a routing table. It is also known as a key or primary value.

M

mailbox

A folder in which messages left by callers can be transcribed by agents.

mailbox configuration

The setup of a mailbox that determines what options are available and how the mailbox will behave.

Multi Application Platform (MAP)

The Lucent Technologies hardware platform that supports CONVERSANT.

MENU

An action used to prompt a caller for input and to move call control to 1 of up to 13 CONVERSANT vectors, depending on the value of the input.

MSG_DROP

An action used to transfer call control to a Script Builder application that allows the caller to leave a message.

message category

Messages in mailboxes are in 1 of 4 categories or states. They are the ready category, for messages from callers that have not been saved or deleted by agents; the saved category, for messages saved by agents; the in transcription category, for messages currently being transcribed by agents; and the deleted category, for messages that have been deleted by agents. Message category is also known as message status.

message status

See message category.

message waiting lamp

A light on a phone that indicates that there are 1 or more messages for the owner of the phone.

message

A record that contains data and recorded information left by callers to be handled later by agents.

multilingual features

The features of Customer Assist Care Center that allow the use of more than one language. For example, the CHG_LANG action supports multilingual features.

music on hold

Music that is heard while the caller is on hold in a queue.

O

OFF_HOOK

An action used to take a channel off hook and answer a call.

off hook

When the handset of the phone is lifted from its cradle (off hook), it signals the switch that someone is ready to do something, like make or answer a call.

on hold

The caller or agent is placed in a waiting state, where they will hear music or silence, until connected again with someone.

on hook

When the phone handset is resting in its cradle. The phone is not connected to any particular line.

operating system

A software program that manages the basic operations of a computer system. Examples include UNIX and MS-DOS.

outgoing call

Call from within the switch to outside the switch.

outside line access code

The access code or series of touch tones that tells the switch that the following numbers are for a phone number outside the switch.

P

package

One or more diskettes or tapes that installs software onto a computer. Examples include Customer Assist Care Center Platform Runtime and Language US English.

partition

A division of a hard disk. Each partition behaves as a distinct hard disk.

Private Branch Exchange (PBX)

A smaller version of the phone company's larger central switching office. In most cases, it is a privately owned switch. PBX basically routes callers to other locations. When enhanced with ACD capabilities, a PBX can become a powerful part of a call center.

phrase

A unit of speech that is spoken back to the caller. This can be a letter, number, word, sentence, or paragraph. A phrase is also known as a speech phrase.

phrase database

A listing of all the phrases that exist on Customer Assist Care Center and that can be modified. A phrase database contains phrases from multiple talkfiles.

phrase number

A number used by a CONVERSANT application to identify a phrase. Its use is equivalent to a phrase tag.

phrase tag

A tag that identifies a specific phrase. Generally, the wording of the phrase is used in the phrase tag.

Platform Management Package

A Customer Assist Care Center package that allows a system administrator to build applications to provide certain services to callers. Some of the many services that the Platform Management Package can provide are announcements, collection of input, auto attendants, and delay announcements.

port

A device on the CONVERSANT that allows for the handling of call events such as answering calls, playing messages, and collecting input. A port is also referred to as a channel.

position in queue

A caller's relative position in queue.

previous runtime database

One of the three vector databases: development database, runtime database, and previous runtime database. When the vectors in the development database are placed in service, the development database becomes the runtime database, and the runtime database becomes the previous runtime database. The previous runtime database is also referred to as the archive database.

product

A marketing term for a collection of packages designed to provide certain services.

professional speaker

A person with professional vocal talent whose speech can be easily understood.

program

Instructions given to a computer to perform certain tasks. Examples include Script Builder programs.

public network

A network operated by common carriers or telecommunications administrations for the provision of circuit switched, packet switched, and leased-line circuits to the public.

Pulse Code Modulation (PCM)

An extension of pulse-amplitude modulation (PAM) in which carrier-signal pulses modulated by an analog signal, such as speech, are quantized and encoded to a digital, usually binary, format.

Q

queue

A series of calls or messages waiting for connection to a line or agents.

QUIT

An action used to release the call currently under the CONVERSANT vector's control.

R

Record segment

A segment type in the Callback Messaging package that records input spoken by the caller.

REPORT

An action used to record the current value of a variable for use in reports.

return value

A value used to indicate the status of the last process started. A return value is commonly used to indicate whether the last task, such as a transfer, was successful.

ring cycle

The pattern of ringing. In North America, the ring cycle is typically 6 seconds long: 2 seconds of ringing followed by 4 seconds of silence.

rotary phone

A phone with a circular dial. As the dial returns to its normal position after being turned, it opens and closes an electrical loop connected to the central office. Rotary dial telephones momentarily break the DC circuit to represent the digits dialed.

routing table

A table of records used to provide information needed to route callers to their destination.

runtime

The time callers are actually interacting with Care Center packages after Care Center has been administered by the call-center manager to accept live callers.

runtime database

One of the three vector databases: development database, runtime database, and previous runtime database. The runtime database contains the vectors that are currently being used to handle calls.

S

SCHEDULE

An action used to transfer call control to a CONVERSANT vector associated with the current date and time.

Schedule segment

A segment type in the Callback Messaging package that allows the caller to input the time and/or date that the caller wishes to receive a callback.

screen pop

The delivery of caller-specific information onto an agent's computer screen when the agent answers the call.

script

A program written using Script Builder.

Script Builder

A 4th generation application generator that uses forms and menus to write IVR programs.

Script Builder application

A program written using Script Builder.

segment

A part of a message. A message can have up to 15 segments. A segment can be 1 of 4 types: Data, Speech, Inform, or Schedule.

SET

An action used to perform a mathematical operation on the value of a numeric variable and to replace the original value with the resulting value.

setup vector

The first vector in the vector database. The setup vector is always vector number zero. All calls arriving at ports assigned to Customer Assist Care Center go through this vector.

signal

The result of a call. A signal can be an answer, busy, no answer, or re-order signal.

skill

The abilities of an agent to handle certain tasks. Examples of skills include ability to speak certain languages and answer questions on certain products.

software

The detailed instructions to operate a computer. This typically means programs.

SPCH_ADMN

An action used to transfer call control to a Script Builder application that allows the caller to administer, with a touch-tone phone, phrases defined for vectors, mailboxes, and standard speech.

SPEAK_NUM

An action used to speak a number to the caller.

speech energy

The frequency pattern that typically indicates human speech.

speech phrase

A unit of speech that is spoken back to the caller. This can be a letter, number, word, sentence, or paragraph. A speech phrase is also referred to as a phrase.

speech recognition

The ability of a program to understand human speech. Speech recognition typically is used to recognized spoken digits.

Speech Recognition Package

A Customer Assist Care Center package that enables Care Center to use speech recognition to collect a caller's spoken input.

Speech Recognition model

A collection of rules and data that allows the speech recognition program to understand human speech.

speech space

The amount of disk space allocated to hold speech phrases.

speech talent

A person with professional vocal talent whose speech can be easily understood.

split

An ACD routing division that allows calls arriving on specific trunks or calls of certain transaction types to be answered by specific groups of agents.

standard announcement

An announcement that can be heard by many listeners at once.

standard speech

A collection of commonly used phrases. This includes digits, characters, and certain sentences.

status line

The last line on the Customer Assist Care Center screen-based user interface. It is used to provide information about the current item being administered.

step

An action in a vector. Each CONVERSANT vector consists of 1 or more actions in a list. The position of an action in the list is referred to as the step number. There can be, at most, 14 steps to each vector.

supervisor

The leader and manager of a group of agents.

SWITCH

An action used to move call control to 1 of up to 11 vectors, depending on the value of a variable.

switch

A mechanical device that establishes, monitors, and dismantles connections. It is sometimes referred to as PBX.

switch integration

The integration of a CONVERSANT with a switch to pass information between them.

system

An organized assembly of hardware, software, procedures, and other facilities designed to perform a specific function or set of functions. Different systems may overlap one another. For example, the CONVERSANT system is built on top of the UNIX operating system. A system can include multiple products. For example, Customer Assist Care Center is a product that is part of the CONVERSANT system.

system administration

The administration of a CONVERSANT or Customer Assist Care Center.

system monitor

A CONVERSANT feature that allows the monitoring of calls currently in progress.

T

talkfile

A collection of phrases grouped by a certain purpose.

template

A pre-configured vector for a particular purpose. IA template generally needs to be altered to meet your needs. Examples include the Setup Template.

touch tone

A tone produced by pressing a button on a push-button telephone.

trace utility

A CONVERSANT utility used to debug or track CONVERSANT applications.

transcribe

The writing down of callers' messages, usually done by agents.

TRANSFER

An action used to transfer the caller to a specified extension or VDN.

transfer

A telephone switch feature that provides the ability to move a call from one extension to another.

TRANSRIBE

An action used to transfer call control to a Script Builder application that allows the caller to listen to and administer the messages left earlier by callers.

trunk

A dedicated telecommunications channel between two communications systems or central offices (COs).

V

variable

A placeholder used to hold values. Values can be assigned to a variable and retrieved when the variable is referenced.

vector, CONVERSANT

A series of actions on the CONVERSANT to perform a specific or multiple tasks.

vector, DEFINITY

A series of steps on the DEFINITY to perform a specific or multiple tasks.

vector database

A collection of CONVERSANT vectors designed to provide one or more services or applications.

Vector Directory Number (VDN)

A number that points to a DEFINITY vector.

vector name

The name of a CONVERSANT vector.

vector number

The number used to identify a CONVERSANT vector. An action references a CONVERSANT vector by its vector number.

vector worksheet

A form that shows the vector setup.

virtual agent

Use of software to act as an agent. Virtual agents are sometimes referred to as software agents.

Voice Information System (VIS)

A Lucent Technologies name for the CONVERSANT system.

voice card

A device with multiple ports and/or speech functions such as speech recognition.

voice channel

A device on the CONVERSANT that allows for the handling of call events such as answering calls, playing messages, and collecting input. A voice channel is also referred to as a port or channel.

voice form

The concept of answering a series of questions using touch-tone, dialed, or spoken input.

Voice Response Unit (VRU)

A computer that interacts verbally via a phone with a caller. The computer will play announcements and questions to the caller. The caller can enter input using touch tones, a rotary phone, or speech. See IVR.

voice system

See VRU.

W

wait time

The switch's estimate of how long a caller must wait for an agent in seconds. It is also known as estimated wait time.

wild-card character

A special character that can be used to represent one or more characters.

Index

Symbols

%ani, 5-182, 5-185
%caller_num, 4-90
%ci_value, 3-31, 4-31, 4-34, 5-45, 5-47, 5-54, 5-61, 5-63, 5-64, 5-65, 5-83, 5-84, 5-88, 5-89, 5-90, 5-96, 5-98, 5-100, 5-102, 5-104, 5-105, 5-106, 5-107, 5-110, 5-111, 5-112
%data1, 3-14, 3-31, 4-28, 4-34, 4-35, 5-56, 5-57, 5-84, 5-85, 5-86, 5-90, 5-91, 5-92, 5-93, 5-94, 5-95, 5-96, 5-100, 5-103, 5-107, 5-108, 5-109, 5-112, 5-118, 5-119, 5-125, 5-136, 5-137, 5-143, 5-161, 5-170, 5-171, 5-176, 5-177, 5-178, 5-179, 5-182, 5-184
%data2, 4-34, 5-136, 5-137, 5-138
%ewt, 5-125, 5-126, 5-143, 5-144, 5-161, 5-163
%language, 5-145, 5-161, 5-163, 5-164, 5-165, 5-166
%matched, 5-136, 5-137
%num_dig_got, 3-9, 3-20, 5-43, 5-45, 5-54, 5-55, 5-61, 5-62, 5-83, 5-88, 5-98, 5-99, 5-101, 5-102, 5-104, 5-105, 5-110, 5-111
%num_tried, 5-60, 5-62, 5-63, 5-87, 5-88, 5-98, 5-99, 5-101, 5-102, 5-104, 5-105, 5-110, 5-111
%qpos, 5-118
%vdsn, 5-46

A

abandoned call
 rates, 5-4
access channels, 4-76
access codes
 outside lines, 4-60
ACD (Automatic Call Distribution), 3-4, 3-13
action
 defined, 1-3
action steps
 numbers on CONVERSANT vector worksheet, 4-6
 removing from CONVERSANT vectors, 4-10
actions
 ADA_CALC, 3-2
 ANNOUNCE, 1-9, 3-4, 3-15
 CHAN_ASN, 3-6
 CHG_LANG, 3-7, 3-44
 CONVERSE, 3-8, 3-47, 4-23
 DATA_RTN, 1-23, 1-24, 3-10, 3-31
 DYN_ANNOU, 3-14
 DYNAMIC, 1-10, 3-12, 3-13
 EWT, 3-14
 EXECUTE, 1-10, 3-17
 GET_DIALP, 1-26
 GET_DIGT, 3-20
 GET_SPCH, 1-25, 3-21

GLOBAL, 3-24
GOTO, 3-24
HANG_ACT, 3-26
LOOK_UP, 1-23, 3-28
MENU, 3-29
MSG_DROP, 1-11, 3-33
OFF_HOOK, 3-35
QUIT, 3-35
REPORT, 3-36
SCHEDULE, 3-37
SET, 3-15, 3-40, 3-47
SPCH_ADMN, 3-41
SPEAK_NUM, 1-24, 3-43
SWITCH, 1-10, 3-44
TRANSFER, 3-45
TRANSCRIBE, 1-16, 3-47
activating
 Agent Access, 4-74
 new CONVERSANT vectors, 4-38
 Notification and Alarms, 4-63
ADA norm wait Vector worksheet, 4-10
ADA Template Vector worksheet, 4-24, 4-25, 4-26
ADA_CALC action, 3-2
ADA_CALC Action Definition form, 4-25
Add New Phrase worksheet, 4-47
adding
 actions steps to CONVERSANT vectors, 4-9
 phrases, 4-46
 records, 4-86
 variables, 4-56
Additional Options menu, 1-19, 1-21
administration
 Callback Messaging, 4-57, 5-150, 5-159
 Custom Call Routing, 4-80
 Customer Assist Care Center, 4-1
 global mailbox setting, 4-74
 mailboxes, 4-57, 4-58
 of phrases, 4-42
 password, 4-52
 record, 4-85
 routing table, 4-83
 system troubleshooting, 6-16
 variables, 4-55
agent
 call center issues, 5-4
 callback hours, 5-150
 callbacks and connections, 4-104
 notification of messages, 4-62, 4-75
 scheduling callback options, 1-19
Agent Access
 activating, 4-74
 channels for callback, 4-75
 global mailbox settings, 4-74
 hard allocating, 4-76
 numbers, 4-60
 scheduling menu options, 4-77
 using, 1-22
 with Callback Messaging, 1-11
Agent Callback Count report, 4-104
Agent Callback Hours form, 4-80

- alarm mailboxes, 4-63
- Ann Queu Pos worksheet, 4-29
- ANNOUNCE action, 1-9, 3-4, 3-15, 3-20, 5-43, 5-47, 5-54, 5-57, 5-64, 5-66, 5-83, 5-88, 5-99, 5-102, 5-106, 5-111, 5-113, 5-119, 5-120, 5-126, 5-137, 5-144
 - figure, 5-35, 5-44
- ANNOUNCE Action Definition form, 4-21, 4-26, 4-34
- announce queue position
 - sample application, 5-115
- Announce Queue Position template, 3-2, 3-15, 4-27
- announcement
 - anticipated delay, 1-9
 - delay, 5-10
 - dynamic, 5-9, 5-37
 - Estimated Wait-Time, 1-9
 - queue-position, 1-9
 - standard, 5-9, 5-25
- announcement platform, 1-8
- Anticipated Delay Announcement
 - building setup vectors, 1-9
 - template, 4-23
- application
 - defined, 1-3
- applications
 - other, 5-12
 - potential, 5-9
 - Script Builder, 5-12
- archive databases, 4-38, 4-115
- assigning
 - CONVERSANT vectors to channels, 4-13, 4-14
 - phrase numbers, 4-46
- AUDIT mailboxes, 4-74
- auditing
 - vector databases, 4-36
- automated attendant, 3-29
 - defined, 5-9
 - sample application, 5-49
- Automatic Callback, 4-68
- Automatic Number Identification, 1-12, 3-8, 5-3, 5-129, 5-181
 - Custom Call Routing, 1-23
 - populating agent's display, 1-24
- Automatic Speech Recognition, 5-49, 5-67

B

- backing up
 - CONVERSANT speech phrases, 4-115
 - CONVERSANT vectors, 4-115
 - mailbox configuration, 4-119
 - speech, 4-119
 - UnixWare operating system, 6-7
- backup/restore mailbox configurations, 4-115
- bilingual dynamic announcements
 - sample application, 5-155
- bilingual routing

- sample application, 5-155
- building setup vectors, 1-9
- bulletin board, 3-29
 - defined, 5-9
 - sample application, 5-67

C

- Call Back Conference Time, 4-78
- call center
 - agent issues, 5-4
 - build world-class, 5-5
 - company issues, 5-3
 - customer interaction, 5-3
 - feedback, 5-6
 - general issues, 5-4
 - maintenance, 5-7
 - queue management, 5-3
 - resource issues, 5-4
 - strategies for building, 5-3
 - technology issues, 5-4
 - test, 5-6
- Call Center menu, 4-88
- Call Detail report, 4-91
- Call Management System
 - reports, TRANSFER actions, 3-45, 6-9
- Call Prompting
 - DEFINITY, 5-10
- call routing
 - using information from DEFINITY vector, 4-31
- call vector configurations, 4-5
 - Customer Assist Care Center main menu, 4-3
- CALLBACK data interface process (DIP), 6-30
- Callback Messaging, 5-10, 7-5
 - administration, 4-57, 5-150, 5-159
 - dequeue caller, 5-145, 5-166
 - documented activity, 4-103
 - how it works, 1-18
 - overview, 1-11
 - sample application, 5-149
 - set up agent hours, 5-150
 - troubleshooting, 6-10
- Callback Messaging Administration menu, 4-58
- Callback Messaging Language and Runtime, 7-6
- Callback Messaging package, 1-25, 1-26
- callback options, 1-13, 1-19
- callback process, interrupting, 1-18
- Callback Retry mode, 1-16
- callbacks received by agents, 4-106
- caller input, wildcards, 3-31
- caller-on-hold systems, 5-9
 - delay announcements and delay routing, 5-10
 - dynamic port allocation, 5-11
 - message delivery and callback messaging, 5-10
 - multilingual, 5-11
 - speech recognition, 5-10

- standard/dynamic announcements, 5-9
- callflow diagram
 - Announce Queue Position, 5-115
 - Automated Attendant, 5-49
 - Bulletin Board, 5-67
 - Custom Call Routing, 5-129
 - Dynamic Announcement, 5-37
 - Estimated Wait Time, 5-122
 - Estimated Wait Time Routing, 5-139
 - Estimated Wait Time Routing bilingual, 5-155
 - reason for creating, 5-14
 - Standard Announcement, 5-26
- Care Center
 - assigning to CONVERSANT channels, 5-16
 - view assigned channels, 5-18
- Care Center Main Menu, 4-3
- Care Center Package Dependencies, 1-5
- ccc, 5-18
- CHAN_ASN action, 3-6, 5-20
 - figure, 5-22, 5-173, 5-180
- changing
 - mailbox's message waiting lamp extension, 4-75
 - setup vectors, 4-14
 - variable's names, 4-57
- Channel Access Time, 4-75
- channels
 - assigning to Care Center, 5-16
 - view channels assigned to Care Center, 5-18
- CHG_LANG action, 1-25, 3-7, 3-43, 3-44, 5-161
 - figure, 5-162
- coding rate, 5-29
- Collected Digits, 5-129
- collecting digits, dial pulse accuracy, 3-19
- company
 - call center issues, 5-3
- configurations
 - analog, 1-22
 - backing up, 4-119
 - backup/restore mailbox configurations, 4-115
 - call vector, 4-3, 4-5
 - Customer Assist Care Center, 4-14
 - digital (line-side T1), 1-22
 - restoring, 4-119
- confirmation
 - caller, response, 4-71
 - of caller input, 4-66
- CONVERSANT
 - speech phrases, backup and restore, 4-115
- CONVERSANT application
 - defined, 1-3
- CONVERSANT Call Center
 - system reports, 4-89
- CONVERSANT Callback Messaging, 1-11
- CONVERSANT System Administration menu, 4-41
- CONVERSANT Vector worksheet, 4-6
- CONVERSANT vectors, 1-6, 1-7, 4-12
 - activating new, 4-38
 - adding action steps to, 4-9
 - archive databases, 4-39
 - assigning to channels, 4-13, 4-14
 - backup, 4-115
 - Callback Messaging, 1-11
 - copying, 4-11
 - creating, 4-6
 - defined, 1-3
 - deleting, 4-11
 - development databases, 4-39
 - editing, 4-7
 - in sample application, 5-14
 - maintaining in three databases, 4-38
 - removing action steps from, 4-10
 - restore, 4-115
 - runtime databases, 4-39
 - setup, 4-13, 4-14
 - the three databases, 4-39
- CONVERSE action, 3-2, 3-8, 3-10, 3-47, 5-43, 5-118, 5-125, 5-136, 5-143, 5-161, 5-176, 5-182
 - Anticipated Delay Announcement template, 4-23
 - figure, 5-43
 - simulation, 3-10
- CONVERSE Action Definition form, 4-32
- converse steps
 - and CONVERSANT vectors, 1-24
 - port allocation, 1-9
 - routing calls, 1-23
- Converse vector step, 1-7, 3-8, 3-13, 3-46
- Copy Phrase form, 4-50
- Copy Vector form, 4-12
- copying
 - CONVERSANT vectors, 4-11
 - mailboxes, 4-73
 - phrases, 4-50
- Create New Mailbox form, 4-60
- creating
 - CONVERSANT vectors, 4-6
 - DEFINITY vectors using VDNs, 1-24
 - mailboxes, 4-57, 4-59
- Custom Call Routing, 1-23, 4-81, 7-6
 - administration, 4-80
 - description, 1-23
 - sample application, 5-129
 - table, 5-131
 - troubleshooting, 6-15
- Custom Call Routing Administration menu, 4-81
- Custom Call Routing template, 1-23, 4-31
- customer
 - feedback, 5-6
 - interaction, 5-3
- Customer Assist Care Center
 - configurations, 4-14
 - error messages for DIPs, 6-18
 - features and capabilities, 5-5
 - functionality, troubleshooting, 6-3
 - main menu, 4-3
 - potential applications, 5-9
 - problems and remedies, 6-41

- software, 1-2
- software, troubleshooting, 6-1
- custom-routing incoming calls, 1-23

D

- Data Configuration form, 1-11, 4-64
- data interface processes (DIPs)
 - CALLBACK, 6-30
 - error messages, 6-18
 - PHR_ADM, 6-25
 - VCT_RPT, 6-18
 - VECTOR, 6-21
- DATA_RTN action, 1-23, 1-24, 3-10, 3-31, 5-57, 5-65, 5-120, 5-138, 5-147, 5-168
 - figure, 5-58, 5-65
- DATA_RTN Action Definition form, 4-35
- database
 - archive, 5-23
 - corruption, 6-41
 - development, 5-23
 - of CONVERSANT vectors, 4-115
 - restoring, 4-115
 - run-time, 5-23
- data-type information
 - MSG_DROP action, 1-11
- Data-type response, 4-64
- DEFINITY Call Prompting, 3-8
- DEFINITY ECS
 - vector functionality, troubleshooting, 6-2
- DEFINITY vector, 1-6, 3-13
 - defined, 1-3
 - example, 5-27, 5-40, 5-53, 5-80, 5-117, 5-124, 5-131, 5-142, 5-159, 5-169, 5-175, 5-181, 5-186
 - in sample application, 5-14
 - passing calls to Care Center setup vectors, 1-9
 - reference book, 5-14
- deleting
 - CONVERSANT vectors, 4-11
 - records, 4-85
- development databases, 4-38
 - comparing to runtime databases, 4-39
 - description, 4-115
- Dial Number form, 4-49
- Dial Pulse Recognition, 1-26, 7-6
- Dial Pulse Recognition package, 1-26
- Dial Tone Delay, 1-22
- Dialed Number Identification Service, 1-12, 5-3, 5-129
- Digital Protocols form, 1-22
- disp chan, 5-18
- display channels, 5-18
- documentation
 - conventions, xxi
 - CONVERSANT, xxii
 - DEFINITY G3V2, xxii
 - UnixWare operating system, xxii

- DOS disk formatting problems, 6-6
- DYN_ANNOU action, 3-13, 3-14, 3-31, 3-42, 5-46, 5-47, 5-57, 5-64, 5-86, 5-89, 5-92, 5-95, 5-100, 5-103, 5-109, 5-112, 5-137, 5-163
 - figure, 5-47
- DYNAMIC action, 1-10, 3-12, 3-13, 5-171, 5-177, 5-178, 5-179, 5-184
 - figure, 5-172
- DYNAMIC Action Definition form, 4-17
- dynamic allocation of applications
 - sample application, 5-169
- dynamic announcement, 1-7
 - defined, 5-25
 - sample application, 5-37
- dynamic port allocation, 4-16
 - sample application, 5-169
 - templates, 1-9
- Dynamic Templ. vector, 4-16
- Dynamic Templ. Vector worksheet, 4-17, 4-18
- dynamically-allocated ports, 1-9

E

- Edit Vector menu, 4-7
- Edit/Delete Record form, 4-86
- editing
 - AUDIT mailboxes, 4-74
 - CONVERSANT vectors, 4-7
 - mailboxes, 4-74
 - phrases, 4-51
 - records, 4-85
 - speech, option tree, 4-45
 - variables, 4-57
- enter data
 - routing table, 5-133
- error messages
 - for data interface processes (DIPs), 6-18
- estimated wait time
 - announcements, 1-9, 5-121
 - routing, 5-139
 - sample application, 5-121
- estimated wait time routing
 - sample application, 5-139
- Estimated Wait Time template, 3-15
- Event Count report, 4-93
- events
 - scheduling, 5-175
- EWT action, 3-14, 5-125, 5-143, 5-161
 - figure, 5-126
- EWT Action Definition form, 4-20
- EWT Template Vector worksheet, 4-20, 4-21
- EXECUTE action, 1-10, 3-17, 5-58, 5-65
 - figure, 5-59

F

feature
 defined, 1-3
feature access code, 1-23
 %data1 variables, 4-35
 Custom Call Routing template, 4-35
 DATA_RTN action, 3-11
floppy disks, formatting, 4-120
formatting floppy disks, 4-120
forms
 ADA_CALC Action Definition, 4-25
 Agent Callback Hours, 4-80
 ANNOUNCE Action Definition, 4-21, 4-26, 4-34
 CONVERSE Action Definition, 4-32
 Copy Phrase, 4-50
 Copy Vector, 4-12
 Create New Mailbox, 4-60
 Data Configuration, 1-11, 4-64
 DATA_RTN Action Definition, 4-35
 Dial Number, 4-49
 Digital Protocols, 1-22
 DYNAMIC Action Definition, 4-17
 Edit/Delete Record, 4-86
 EWT Action Definition, 4-20
 Global Settings, 4-61
 Import/Export Routing Table, 4-82
 LOOK_UP Action Definition, 4-33
 Mailbox Definition, 1-22
 Mailbox Global Settings, 4-75
 MSG_DROP Action Definition, 1-13
 Password for Speech Administration, 4-52
 Phrase List, 4-53
 Phrase Recording, 4-48
 Pieces Grid, 4-64
 Record Administration, 4-87
 Record Administration menu with the Add Record, 4-87
 Record Administration menu with the Edit/Delete Record, 4-86
 Record Configuration, 1-11
 Routing Table Administration, 4-84
 Schedule Configuration, 4-70, 4-71
 Transcription Detail Report, 4-106
 TRANSCRIBE Action Definition, 1-16
 Vector List, 4-15
forwarding messages, 1-19
functionality, voice system, 6-1

G

generating
 phrase lists, 4-53
 reports, 4-89
GET_DIALP action, 1-26, 3-18, 3-22

GET_DIGT action, 3-20, 5-45, 5-54, 5-83
 figure, 5-45
GET_SPCH action, 1-25, 3-21, 5-61, 5-87, 5-98, 5-101, 5-104, 5-110
 figure, 5-62, 5-99, 5-102, 5-105, 5-111
GLOBAL action, 3-24
Global Settings form, 4-61
GOTO action, 3-24, 5-45, 5-54, 5-57, 5-62, 5-63, 5-64, 5-83, 5-86, 5-88, 5-89, 5-92, 5-95, 5-99, 5-100, 5-102, 5-103, 5-105, 5-106, 5-109, 5-111, 5-112, 5-119, 5-120, 5-126, 5-143, 5-162, 5-163
 figure, 5-64
grammar accuracy, 3-22

H

HANG_ACT action, 3-26, 5-183
 figure, 5-184
hard-allocated ports, 1-9
hardware
 Mailbox Conversion Utility, E-3
holiday
 schedule, 5-175

I

IDs
 mailboxes, 4-59
import data
 routing table, 5-132
Import/Export Routing Table form, 4-82
importing/exporting data, 4-81
Inform-type information
 MSG_DROP action, 1-12
Inform-type response, 4-64
installation, 7-2, 7-4, 7-5, 7-6, 7-7
 Mailbox Conversion Utility, E-4
instructions, 3-48

L

Line-Side E1/T1, 3-48
line-side T1 configurations
 user guidelines, 1-22
LOOK_UP action, 1-23, 3-28, 5-136
 figure, 5-137
LOOK_UP Action Definition form, 4-33

M

mailbox

- bilingual, 5-159
- callback messaging, 5-149
- defined, 1-3
- global settings, 5-151
- messages from abandoned calls, 5-181
- set up, 5-152

Mailbox Administration (Select Mailbox) menu, 4-59

Mailbox Conversion Utility

- description, E-1
- hardware supported, E-3
- installation, E-4
- removing, E-10
- software supported, E-3
- using, E-6

mailbox custom and standard phrases

- talkfile, 5-28

Mailbox Definition form, 1-22

Mailbox Global Settings, 5-151

Mailbox Global Settings form, 4-75

Mailbox Global Settings menu, 1-18, 1-22

mailboxes

- administering global settings, 4-74
- administration, 4-57, 4-58
- AUDIT, editing, 4-74
- before removing, 4-74
- changing message waiting lamp extension, 4-75
- configurations, backing up, 4-119
- configurations, restoring, 4-119
- copying, 4-73
- creating, 4-57, 4-59
- editing, 4-74
- global settings, 4-75
- IDs, 4-59
- names, 4-59
- passwords, 4-59
- priority, 4-59
- removing, 4-73
- standard speech phrases, removing, 4-51

main menu, 1-19, 4-3, E-6

menu

- Care Center Main, 4-3

MENU action, 3-29, 3-31, 3-32, 5-56, 5-84, 5-90, 5-93, 5-96, 5-107, 5-127, 5-144, 5-161, 5-165

- figure, 5-56, 5-57, 5-85, 5-86, 5-91, 5-92, 5-94, 5-95, 5-97, 5-108, 5-109

menus

- Additional Options, 1-19, 1-21
- Call Center, 4-88
- Callback Messaging Administration, 4-58
- CONVERSANT System Administration, 4-41
- Custom Call Routing Administration, 4-81
- Customer Assist Care Center main, 4-3
- Edit Vector, 4-7

Mailbox Administration (Select Mailbox), 4-59

Mailbox Global Settings, 1-18, 1-22

main, 1-19, E-6

options, scheduling, 4-77

Playback, 1-20

playback options, 1-17

Record Administration, 4-85, 4-86

Record Configuration, 4-72

Report Generation, 4-89

Report Scheduling Options, 4-113

Restore Vector Database, 4-115

Schedule Callback, 1-15

Select Mailbox, 4-59, 4-73

Select Phrase, 4-43

Speech Administration, 4-42, 4-52

System Administration, E-7

System Backup/Restore, E-8

Template Type, 4-13

Variable Administration, 4-56

Vector Configuration, 4-5, 4-6, 4-10

message

forced, 5-149

retry intervals, 4-61

treatment, 4-69

Message Count reports, 4-102

message delivery, 5-10

to remote agents, 4-68

Message Drop

standard phrases, 4-51

Message Drop mailbox, 3-47

Message Handling options

Playback menu, 1-20

Message Log report, 4-103

message waiting

lamp extensions, 4-62

lamps, Leave Word Calling (LWC), 1-13

messages

age allowed, 4-63

count of, by mailbox, 4-102

exceeding maximum number allowed, 4-63

forwarding, 1-19

forwarding aged, 4-63

listening options, 1-17

new for agents, 4-62

notifying agents, 4-75

number allowed, 4-63

passed parameters, 4-69

prepended, 1-19

saving, 4-71, 4-72

monitors

Customer Assist Care Center main menu, 4-3

MSG_DROP action, 1-11, 3-33, 5-145, 5-166

figure, 5-146, 5-167

MSG_DROP Action Definition form, 1-13

multilingual systems, 5-11

CHG_LANG, 3-44

N

Notification and Alarms
 activating, 4-63

O

OFF_HOOK action, 3-35
operating system
 defined, 1-3
option tree
 for recording, playing, and editing speech, 4-45
outside line access codes, 4-60
Overview of Installation and Removal, 7-1
overview, announcement platform, 1-8

P

package
 defined, 1-3
parameters
 Access Channels, 4-76
 Channel Access Time, 4-75
 UnixWare operating system, 6-42
passed parameters, 4-69
 importing into messages, 4-69
Password for Speech Administration form, 4-52
passwords
 administration, 4-52
 mailboxes, 4-59
 speech administration, 4-52
 TRANSCRIBE actions, 1-16
phone field
 automatic callback, 4-67
PHR_ADM data interface process (DIP), 6-25
phrase
 adding, 4-46
 administration, 4-42
 backing up, 4-115
 copying, 4-50
 editing, 4-51
 generating lists, 4-53
 new, 5-28
 recording, 4-51, 5-29
 removing, 4-51
 restoring, 4-115
 storing, 4-115
 tags, 4-71
phrase list
 generating, 4-53
Phrase List form, 4-53
phrase number

 assigning, 4-46
 creating, 5-28
 editing, 4-51
 mapping to dynamic announcements, 3-14
Phrase Recording form, 4-48
Pieces Grid form, 4-64
Platform Administration, 7-2
Platform Language and Runtime (US English), 7-4
Platform Management package, 1-25, 1-26
Playback menu, 1-17, 1-20
playing
 back caller's response, 4-71
 speech, option tree, 4-45
populating agent's telephone display, 1-24
port allocation
 and converse vector step, 1-9
 dynamic, 5-11, 5-169
ports
 dynamically-allocated, 1-9
 hard-allocated, 1-9
prepending messages, 1-19
problems, solving, 6-1
product
 defined, 1-3
program
 defined, 1-3
prompts, responding to, 1-12
public network dial tone, 4-60

Q

queue management, 5-3
Queue Pos Templ Vector worksheet, 4-28
queue position
 announce, 5-115
queue-position announcements, 1-9
QUIT action, 1-7, 3-26, 3-35, 5-47, 5-55, 5-58, 5-59, 5-65,
 5-66, 5-83, 5-86, 5-89, 5-92, 5-95, 5-97, 5-100, 5-103,
 5-106, 5-109, 5-112, 5-113, 5-120, 5-127, 5-138, 5-144,
 5-147, 5-164, 5-165, 5-168, 5-172, 5-177, 5-178, 5-179,
 5-184, 5-185, 5-187, 5-189
 figure, 5-48

R

record administration, 4-85
Record Administration form, 4-87
Record Administration menu, 4-85, 4-86
Record Administration Menu with the Add Record form,
 4-87
Record Administration Menu with the Edit/Delete Record
 form, 4-86
Record Configuration form, 1-11
Record Configuration menu, 4-72

- recording
 - phrases, 4-51
 - speech, option tree, 4-45
- recording speech
 - options, 4-43
 - phrase lists, 4-46
- records
 - adding, 4-86
 - deleting, 4-85
 - editing, 4-85
- record-type information
 - MSG_DROP action, 1-11
- Record-type response, 4-64
- removing
 - action steps from CONVERSANT vectors, 4-10
 - Customer Assist Care Center software, 7-8
 - Mailbox Conversion Utility, E-10
 - mailboxes, 4-73
 - package, 7-8
 - phrases, 4-51
 - software, E-10
 - variables, 4-56
- REPORT action, 3-36, 5-182, 5-185
 - debugging tool, 3-37
 - figure, 5-183
- Report Generation menu, 4-89
- Report Scheduling Options menu, 4-113
- reporting
 - sample application, 5-181
- reports
 - Agent Callback Count, 4-104
 - Call Detail, 4-91
 - Call Management System, 3-45, 6-9
 - CONVERSANT Call Center, 4-89
 - Event Count, 4-93
 - generating, 4-89, 4-112
 - Message Count, 4-102
 - Message Log, 4-103
 - printing, 4-114
 - Routing Table, 4-101
 - scheduling, 4-112
 - Speech Space Available Test, 4-111
 - Traffic, 4-96
 - Transcription Detail, 4-106
 - Vector Detail, 4-57
 - Vector Map, 4-99
 - Vector Profile, 4-97
 - Vector Usage, 4-92
- resources
 - balance with service, 5-5
 - call center issues, 5-4
- response limits, 4-65, 4-72
- Restore Vector Database menu, 4-115
- restoring, 4-119
 - CONVERSANT speech phrases, 4-115
 - CONVERSANT vectors, 4-115
 - data from previous version of Call Center, 4-121
 - databases from current run-time, 4-116
 - mailbox configurations, 4-119

- previous runtime database, 4-116
- speech, 4-119
- UnixWare operating system, 6-7
- vector databases, 4-115
- routing
 - delay, 5-10
 - menu-driven, 5-49
- routing calls, 1-23
- routing table
 - defined, 1-3
 - importing, 4-83
 - populate, 5-132
 - set up, 5-131
- routing table administration, 4-83
- Routing Table Administration form, 4-84
- Routing Table report, 4-101
- Routing Templ. Vector worksheet, 4-33
- Routing Templ. worksheet, 4-32
- runtime databases, 4-38
 - comparing to development databases, 4-39
 - description, 4-115
 - restoring from current runtime, 4-116
 - restoring previous, 4-116

S

- Sample Application # 1
 - The Setup Vector, 5-15
- Sample Application # 2
 - Standard Announcement, 5-25
- Sample Application # 3
 - Dynamic Announcement, 5-37
- Sample Application # 4
 - Automated Attendants, 5-49
- Sample Application # 5
 - Bulletin Boards, 5-67
- Sample Application # 6
 - Announce Queue Position, 5-115
- Sample Application # 7
 - Estimated Wait Time, 5-121
- Sample Application # 8
 - Custom Call Routing, 5-129
- Sample Application # 9
 - Estimated Wait Time Routing, 5-139
- Sample Application #10
 - Callback Messaging, 5-149
- Sample Application #11
 - Bilingual Dynamic Announcements and Routing, 5-155
- Sample Application #12
 - Dynamic Port Allocation and Dynamic Allocation of Applications, 5-169
- Sample Application #13
 - Scheduling Events in a Call Center, 5-175
- Sample Application #14
 - Reporting and Hang Up Actions, 5-181
- Sample Application #15

- Speech Administration and Transcribing Messages, 5-186
 - sample applications, 5-15, 5-25, 5-37, 5-49, 5-67, 5-115, 5-121, 5-129, 5-139, 5-149, 5-155, 5-169, 5-175, 5-181, 5-186
 - introduction, 5-13
 - organization, 5-14
 - saving
 - messages, 4-71, 4-72
 - SCHEDULE action, 3-37, 5-176, 5-184
 - figure, 5-177
 - setting up holiday hours, 3-38
 - Schedule Callback menu, 1-15
 - schedule callback options
 - agents, 1-19
 - callers, 1-13
 - Schedule Configuration form, 1-11, 4-71
 - Schedule Future Date option, 1-13
 - schedule-type information
 - MSG_DROP action, 1-11
 - Schedule-type response, 4-64
 - scheduling callback options, 1-13, 1-19
 - scheduling events
 - sample application, 5-175
 - screens, navigating, 2-6
 - Script Builder applications, 5-12
 - Select Action menu worksheet, 4-10
 - Select Mailbox menu, 4-59, 4-73
 - Select Phrase menu, 4-43
 - self-service alternatives, 5-3
 - service
 - balance with resources, 5-5
 - place vector in, 5-23
 - SET action, 3-15, 3-40, 3-47, 5-60, 5-62, 5-63, 5-87, 5-88, 5-98, 5-99, 5-101, 5-102, 5-104, 5-105, 5-110, 5-111, 5-119, 5-137
 - counting, 3-41
 - figure, 5-61, 5-63
 - Setup templates, 4-14
 - setup vector, 5-23
 - assigning CONVERSANT vectors to channels, 4-13
 - building, 1-9, 5-19
 - changing, 4-14, 5-173, 5-180
 - defined, 5-15
 - modify automatically loaded setup vector, 5-20
 - procedure, 5-15
 - reset to template's defaults, 5-19
 - sample application, 5-15
 - Setup Vector worksheet, 4-14
 - software
 - defined, 1-3
 - Mailbox Conversion Utility, E-3
 - troubleshooting, 6-1
 - solving problems, 6-1
 - SPCH_ADMN action, 3-41, 5-187
 - efficient recording, 3-43
 - figure, 5-187, 5-188
 - SPEAK_NUM action, 1-24, 3-43, 5-119, 5-120, 5-126, 5-144, 5-163
 - figure, 5-120
 - speech, 4-119
 - backing up, 4-119
 - phrases, storing, 4-115
 - record, 5-29
 - speech administration
 - changing passwords, 4-52
 - example, 5-28
 - options for recording and documenting speech, 4-42
 - program, 5-187
 - sample application, 5-186
 - Speech Administration menu, 4-42, 4-52
 - Speech Recognition, 7-7
 - speech recognition, 5-10
 - accuracy, 3-23
 - Speech Recognition package, 1-25
 - speech recording
 - remote, 4-48
 - Speech Space Available Test report, 4-111
 - standard announcement
 - create, 5-28
 - defined, 5-25
 - sample application, 5-25
 - standard phrases
 - Message Drop, 4-51
 - removing, 4-51
 - storing, 4-115
 - standard speech
 - talkfile, 5-28
 - status messages
 - Call Detail reports, 4-91
 - Supported Hardware/Software, 1-4
 - SWITCH action, 1-10, 3-44, 5-88, 5-100, 5-103, 5-106, 5-112, 5-177, 5-178, 5-179, 5-184
 - figure, 5-89, 5-100, 5-103, 5-106, 5-112, 5-171
 - Switch Integration, 1-6
 - system
 - defined, 1-3
 - system administration, 4-41
 - applications, 5-12
 - Customer Assist Care Center main menu, 4-3
 - troubleshooting, 6-16
 - System Administration menu, E-7
 - System Backup/Restore menu, E-8
-
- T**
- table
 - Custom Call Routing, 5-131
 - talkfile
 - mailbox custom and standard phrases, 5-28
 - numbers, editing, 4-51
 - standard speech, 5-28
 - vector phrases, 5-28

- technology
 - call center issues, 5-4
- telephone displays, populating agent's, 1-24
- Template Type menu, 4-13
- templates
 - Announce Queue Position, 4-27
 - Anticipated Delay Announcement, 4-23
 - CONVERSANT Solutions, 1-23
 - Custom Call Routing, 1-23, 4-31
 - Setup, 4-14
 - using, 4-13
 - Vector Created by the Estimated Wait Time, 4-19
 - when to use, 4-12
- time
 - Call Back Conference, 4-78
 - notification and alarms, 4-63
- time to wait for answer, 4-61
- Tips
 - caller input wildcards, 3-31
 - choosing accurate grammars, 3-22
 - delivering messaging to remote agents, 4-68
 - dial pulse accuracy, 3-19
 - efficient recording in SPCH_ADMN, 3-43
 - importing routing tables, 4-83
 - interrupting automatic callback process, 1-18
 - mapping phrase numbers to dynamic announcements, 3-14
 - placing vectors in service, 4-7
 - printing reports, 4-114
 - recording speech options, 4-43
 - remote speech recording, 4-48
 - saving and closing screens, 2-6
 - setting up holiday hours, 3-38
 - simulating a DEFINITY CONVERSE action, 3-10
 - speech recognition accuracy, 3-23
 - speeding up vector creation, 4-6
 - using Care Center's Phrase List, 4-46
 - using mailbox priorities, mailbox setup priorities, 4-60
 - using REPORT action as a debugging tool, 3-37
 - using the SET action as a counter, 3-41
- touch tones
 - GET_DIGT action, 3-20
 - to dial for public network dial tone, 4-60
- trademarks, xxi
- Traffic report, 4-96
- transcriber welcome phrases, 4-60
- transcribing messages
 - sample application, 5-186
- Transcription Detail report, 4-106
- Transcription Detail Report form, 4-106
- TRANSFER action, 3-31, 3-45
- Transfer Method
 - setting to "blind", 4-61
- TRANSCRIBE action, 1-16, 3-47, 5-189
 - figure, 5-189, 5-190
- TRANSCRIBE Action Definition form, 1-16
- troubleshooting, 6-1

- Callback Messaging, 6-10
- Custom Call Routing, 6-15
- Customer Assist Care Center functionality, 6-3
- Customer Assist Care Center software, 6-1
- DEFINITY ECS vector functionality, 6-2
- system administration, 6-16

U

- UNIX operating system
 - Care Center Main menu, 4-3
- UnixWare operating system
 - access denied, 6-41
 - and CONVERSANT 5.0, xxi
 - database backup/restore, 6-7
 - denied access, 6-41
 - disk formatting problems, 6-6
 - documentation, xxii
 - installing Mailbox Conversion utility, E-4
 - internal problems, 4-91
 - parameters, 6-42
 - removing Mailbox Conversion utility, E-10
 - removing software, E-10
- upgrades
 - to CONVERSANT issue 4.0, 4-121

V

- variable
 - %ani, 5-182, 5-185
 - %caller_num, 4-90
 - %ci_value, 3-31, 4-31, 4-34, 5-45, 5-47, 5-54, 5-61, 5-63, 5-64, 5-65, 5-83, 5-84, 5-88, 5-89, 5-90, 5-96, 5-98, 5-100, 5-102, 5-104, 5-105, 5-106, 5-107, 5-110, 5-111, 5-112
 - %data1, 3-14, 3-31, 4-28, 4-34, 4-35, 5-56, 5-57, 5-84, 5-85, 5-86, 5-90, 5-91, 5-92, 5-93, 5-94, 5-95, 5-96, 5-100, 5-103, 5-107, 5-108, 5-109, 5-112, 5-118, 5-119, 5-125, 5-136, 5-137, 5-143, 5-161, 5-170, 5-171, 5-176, 5-177, 5-178, 5-179, 5-182, 5-184
 - %data2, 4-34, 5-136, 5-137, 5-138
 - %ewt, 5-125, 5-126, 5-143, 5-144, 5-161, 5-163
 - %language, 5-145, 5-161, 5-163, 5-164, 5-165, 5-166
 - %matched, 5-136, 5-137
 - %num_dig_got, 3-9, 3-20, 5-43, 5-45, 5-54, 5-55, 5-61, 5-62, 5-83, 5-88, 5-98, 5-99, 5-101, 5-102, 5-104, 5-105, 5-110, 5-111
 - %num_tried, 5-60, 5-62, 5-63, 5-87, 5-88, 5-98, 5-99, 5-101, 5-102, 5-104, 5-105, 5-110, 5-111
 - %qpos, 5-118
 - %vdn, 5-46
 - adding to list, 4-56
 - changing names, 4-57
 - editing, 4-57

- removing, 4-56
- variable administration, 4-55
- Variable Administration menu, 4-56
- VCT_RPT data interface process (DIP), 6-18
- vector
 - building setup vector, 1-9
 - CONVERSANT databases, 4-115
 - CONVERSANT, editing, 4-12
 - Main Route, 5-169
 - placing in service, 4-5, 4-7, 5-23
 - setup, 1-8, 4-13
 - templates available, 4-12
- Vector Configuration menu, 4-5, 4-6, 4-10
- Vector Created by the Estimated Wait Time template, 4-19
- VECTOR data interface process (DIP), 6-21
- vector databases
 - auditing, 4-36
- vector definition screen
 - speeding creation, 4-6
- Vector Detail report, 4-57
- Vector Directory Number, 3-8, 3-12, 5-3, 5-43, 5-46, 5-63, 5-64, 5-169, 5-176, 5-181
 - creating a DEFINITY vector, 1-24
- Vector List form, 4-15
- Vector Map reports, 4-99
- vector phrases
 - talkfile, 5-28
- Vector Profile report, 4-97
- vector templates, selecting, 4-12
- Vector Usage report, 4-92
- voice system functionality
 - troubleshooting, 6-1

W

- wait time
 - estimated, 5-121, 5-139
- waiting for answer, 4-61
- weekend
 - schedule, 5-175
- Whole Word Speech Recognition, 1-25
- worksheets
 - ADA norm wait Vector, 4-10
 - ADA Template Vector, 4-24, 4-25, 4-26
 - Add New Phrase, 4-47
 - Ann Queu Pos, 4-29
 - CONVERSANT Vector, 4-6
 - Dynamic Templ. Vector, 4-17, 4-18
 - EWT Template Vector, 4-20, 4-21
 - Queu Pos Templ Vector, 4-28
 - Routing Templ., 4-32
 - Routing Templ. Vector, 4-33
 - Select Action menu, 4-10
 - Setup Vector, 4-14

