Lucent Technologies
Bell Labs Innovations

Message Care™ Solution Guide
for the *CentreVu®* Internet Solution

Version 1.2

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Preface

Purpose The *Message Care Solution Guide for the CentreVu Internet Solution Version 1.2 (585-215-100)* document provides an overview of elements of the *Message Care* offer, such as operations and features, prerequisites and the baseline configuration, some troubleshooting items, and a glossary.

The Preface introduces the main elements of the document, including the following:

- Contents of this document

- Conventions used in this document

- Using this document

- Related documents.

To provide documentation on the new features provided in Release 1.2 of *Message Care*.

Safety labels The *Message Care* Solution Guide does not require the use of safety labels.

Intended-Audience This solution guide is intended for anyone installing, configuring, administering or using the *Message Care* offer, including agents, supervisors, trainers, Webmasters, and system administrators. This document should also be useful to Lucent Technologies personnel in Technical Service Centers (TSC), Sales, the Design Support Center, the International Technical Assistance Center (ITAC), the NetCare Services organization, and the Centers of Excellence. It should also be

helpful for data networking security personnel, firewall administrators, and anyone else who might use or support a *Message Care* offer.

This document is intended for anyone who needs to know the following:

- Overall configuration for the *Message Care* offer

- Data connectivity for the *Message Care* offer with the call center's network

- Operational details about the *Message Care* offer

- *DEFINITY* Enterprise Communications Server (ECS) switch administration and connectivity for the *Message Care* offer

- *CentreVu* Computer Telephony connectivity and administration for the *Message Care* offer

- Recommended Web page design guidelines for the *Message Care* offer

- Firewall and security issues relative to the *Message Care* offer

- Troubleshooting.

Contents of this document
The *Message Care* Solution Guide is organized into the following chapters:

Chapter 1, "About *CentreVu* Internet Solutions"

Introduces and briefly describes the *Message Care* offer of the *CentreVu* Internet Solution. The information includes descriptions of components, features, requirements, and how it works.

Chapter 2, "Preparing your call center for the *CentreVu* Internet Solution"

Explains how to prepare your call center so that you can integrate the *Message Care* offer of the *CentreVu* Internet Solution quickly and effectively.

Chapter 3, "Installing software"

Describes, at a high-level, the procedures for installing the *Message Care* offer of the *CentreVu* Internet Solution software.

Chapter 4, "Administering the *CentreVu* Internet Solution"

Informs you of the administration required for the *Message Care* offer of the *CentreVu* Internet Solution. After you have installed and connected all necessary components, you must administer your *Message Care* offer so that you can use all of its features and functions.

Chapter 5, "Agent login and logout"

Describes how an agent logs in and logs out of the *Message Care* offer of the *CentreVu* Internet Solution.

Chapter 6, "Processing message calls"

Describes how an agent handles various types of messages and also describes the functionality provided by the *Message Care* software to handle those messages.

Chapter 7, "Reports"

Discusses the reporting capabilities of the *Message Care* offer of the *CentreVu* Internet Solution.

Chapter 8, "Guidelines for enhancing Web pages"

Contains guidelines for creating or modifying Web pages for the *Message Care* offer of the *CentreVu* Internet Solution.

Chapter 9, "Monitoring and maintaining the *CentreVu* Internet Solution"

Covers basic monitoring and maintenance tasks for the *Message Care* offer of the *CentreVu* Internet Solution.

Chapter 10, "Troubleshooting"

Identifies problems that may occur during installation and operation of the *Message Care* offer of the *CentreVu* Internet Solution, and suggests diagnostic and corrective actions that can be taken toward their resolution.

Chapter 11, "Error logs"

Discusses errors and error logs.

Glossary

Provides a list of terms and definitions that relate to the *Message Care* offer of the *CentreVu* Internet Solution.

This document uses the following conventions:

Convention	Description
Message calls	Refers to email and fax.
Initial Capital Letters	Names of windows and keyboard keys. For example: This field is in the Phone Settings window.
Courier Text	Text you are asked to enter, URLs, and system commands. For example: Enter **COM1** in the COM Port field.
KEY + KEY	Key combinations for which you must press and hold down one key while you press another. For example: ALT+F4
<information>	Refers to information that you are requested to provide. For example, to access the administration Web pages, enter the following: *http:// <ICM_server_name>/admin* In this case, you are being asked to enter the actual ICM server name or IP address.
Click and double click	Whenever you are asked to click or double click the mouse button, click the left-hand, or primary button, unless the right-hand, or secondary button, is specified.
Terms	For definitions of terms and acronyms used in this guide, please see the "Glossary."

Many documents other than the *Message Care* Solution Guide pertain to the solution. The most important set of documents are listed.

•   *DEFINITY* ECS documentation set

•   *CentreVu* Computer Telephony documentation set

Using this document   This document includes only specific information that applies to the *Message Care* offer. All other Changes, installation, and administration for other components are covered in referenced documents for each component.

About customer-provided equipment

This guide assumes that it is the call center's responsibility to procure, provision and maintain all customer-provided equipment.

About customer expertise

This guide assumes that the customer is familiar with basic call center operations and has the technical expertise to implement the changes for *Message Care* described in this document.

This document is the *Message Care* Solution Guide for the *CentreVu* Internet Solution Version 1.2, Document No. 585-215-100 Comcode 108446702 Issue 1, February 1999. To order it, do one of the following:

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1　About the *Message Care* offer of the *CentreVu* Internet Solution

Overview

Purpose　This chapter introduces the *Message Care* Solution, including discussions of major components and system operations.

Message Care is part of the overall *CentreVu* Internet Solution; however, the information contained in this document only addresses the *Message Care* offer.

Audience　This section is intended for anyone interested in an overview of the *Message Care* offer, features and elements of the offer, and how it is supported before and after the sale.

Contents　Specific topics covered in this section are as follows:

What is *Message Care*?

Introduction

The *Message Care* software provides call centers with the ability to direct (route) email and fax messages to agents by using *DEFINITY* Enterprise Communications Server (ECS) Automatic Call Distribution (ACD) vectoring system features and the Adjunct/Switch Applications Interface (ASAI) message call feature.

The *Message Care* software extends the existing functions of a call center to cover faxes and email, including attached files. The *Message Care* software funnels email and faxes through the ACD, using its call distribution capabilities such as skills-based routing, load balancing, and priority algorithms, and performance measurement capabilities.

The *Message Care* software enables a call center to respond more quickly and accurately to email and faxes. This leads to increased customer satisfaction, as well as increased productivity in handling messages, which reduces costs.

The following information introduces the *Message Care* software, lists the system features and system capacities, provides an overview of the message flow handling process, describes tracking, logging, and reporting on messages, and provides information on getting help with the *Message Care* software through offer assistance.

Message Care features

The *Message Care* software offers the following features:

- ACD capabilities extended to email and fax
- Integration into your existing call center
- Vector programming for priority processing of selected transactions
- Automatic distribution of messages to universal agents using the Expert Agent Selection (EAS) capabilities of the *DEFINITY* ECS
- Email message detection in the mailboxes of your choice (must be Post Office Protocol [POP3]-compliant)
- Use of the ASAI message call capability of *DEFINITY* ECS G3 R6.3 (message call support without use of physical port resources in *DEFINITY* ECS)
- Auto-acknowledgment for incoming email messages
- Message handling functions for agents
- Message storage in an Open Database Connectivity (ODBC)-compliant database (*Microsoft* Access)

- Standard *CentreVu* Call Management System (CMS) call statistics collected for messages

- Real-time and historical reports on statistics specific to the *Message Care* software.

- Agent-initiated PSTN callback is also useful for a *Message Care* agent needing to contact a consumer regarding an email message. The *Message Care* agent must know the consumer's telephone number because there will not be a caller on the line to prompt for a number to callback.

Message Care **Capacities**   The following table lists the current capacities of the *Message Care* software.

Capacity	Maximum Supported
Busy hour message rate	2400 messages retrieved from mailboxes and delivered to agents per busy hour
Agents simultaneously logged into the Message Care *Message Care* software	100 agents
Typical total storage capacity (includes estimates for agent generated replies) for a single 1K text message is 8K.	Total storage capacity, with an Access database is 750K (approximately 83,300 text messages)
Typical total storage capacity for a fax message is 46K.	Total storage capacity, with an Access database is 750K (approximately 16,000 fax messages)
Simultaneous message calls (launched or active)	The number of simultaneous message calls can be purchased in increments of one.
Mailboxes	150
Message retrieved per polling cycle	A maximum of 200 message retrieved per mailbox in a polling cycle
File Attachments	20 per inbound message

Tracking, logging, and reporting

The *Message Care* software tracks each message from the time it is retrieved from its mailbox until the agent marks it closed. In addition, CMS tracks every message call from the time it enters the *DEFINITY* ECS queue until the message call terminates. Both *Message Care* and CMS reports are useful in evaluating how well your call center is handling messages.

Database logging

The *Message Care* database is an ODBC-compliant database that logs information about a message at each step in processing. You can work with the database directly using *Microsoft* Access.

Reporting

Because the *Message Care* database collects and logs information on all messages regardless of their current status or the number of message calls involved in processing them, accurate statistics in the *Message Care* reports are ensured. For instance, it is easy to see how long consumers must wait for the service they want.

In the *Message Care* reports, you can drill down beyond the summary in the report to a listing of the specific messages tabulated. Then you can drill down again to review an individual message and its statistics.

For more information about *Message Care*reporting, see .

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What do you need to make *Message Care* work?

Overview

This section lists the hardware and software required for the *Message Care* offer. Complete details for each hardware and software component required for the *Message Care* offer can be found later in this section.

What versions of Lucent software and hardware do you need?

The following list provides the versions of Lucent Technologies hardware and software required for the *Message Care* offer.

- *DEFINITY* ECS—Generic 3 Release 6.3.

- Internet Call Manager (ICM) software and the Computer Telephony Integration (CTI) software—Release 3.0

- *CentreVu* Computer-Telephony for *Windows NT* software (*CentreVu* CT)—Release 3.10 Version 2.1 or greater

- *Message Care* software—Release 1.2 (*Message Care* 1.2 requires ICM/CTI Release 3.0)

- For remote diagnostic access, *pcANYWHERE* Release 8 or greater.

What other software and hardware do you need?

The following list summarizes the additional hardware and software that is required but not provided by Lucent Technologies.

- *Microsoft* Access 97 (Release 8.0)

- Mail Server—Post Office Protocol 3 (POP3)-compliant over a Transmission Control Protocol (TCP/IP) stack. To handle outgoing messages, the server must also be Simple Mail Transfer Protocol (SMTP)-compliant.

  Agent desktop requirements:

  – An operating system—see <u>Agent requirements: page 1-14</u> for information about the supported operating systems.

  – An Internet browser—see <u>Agent requirements: page 1-14</u> for information about the supported Internet browsers.

- NT server—266 MHz *Pentium* II-based PC with at least 128MB of RAM, an 8–GB hard-disk drive, a CD-ROM drive, and two Network Interface Cards. The NT server should be running the *Microsoft Windows NT* 4.0 operating system (with NTFS file system) with service pack 3 or greater and *Microsoft* Internet Information Services (IIS) Version 3 or greater.

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DEFINITY ECS

Overview
The *DEFINITY* ECS is a digital switch that processes and routes voice communications. It also houses sophisticated Automatic Call Distribution (ACD) software that allows any voice terminal (telephone) on the *DEFINITY* ECS to act as a call center agent terminal.

The *CentreVu* Internet Solution utilizes the *DEFINITY* ECS's advanced ACD features to process and route message calls to the appropriate endpoints. The *CentreVu* Internet Solution uses the ASAI feature on the *DEFINITY* ECS by way of a Java Telephony Application Programming Interface (JTAPI) to integrate the data networking portions of the *CentreVu* Internet Solution with the *DEFINITY* ECS CTI. This interface provides capabilities such as call progress monitoring, third party call control, and agent state changes (log in, log out, AUX mode, and so on).

There are *CentreVu* Internet Solution administration requirements for the *DEFINITY* ECS. For administration requirements, see .

How the *DEFINITY* ECS works with the *Message Care* offer

1 Agent login—the functionality of the *DEFINITY* ECS can be described in the context of agent operations during a message call. To staff a *Message Care* agent position, an agent uses a browser to access a login Web page, then enters the Expert Agent Selection (EAS) agent ID and the physical extension where the agent will take calls. The agent submits the completed form to the ICM server. The ICM server sends a login request containing the agent's ID and extension to the *CentreVu* Computer Telephony server, which uses the Adjunct/Switch Applications Interface (ASAI) to log the agent in. This lets the *DEFINITY* ECS know about the agent.

2 ICM receives call—when the ICM server receives a call request from the Internet, it launches the call to the *DEFINITY* ECS using the Vector Directory Number (VDN) extension specified. The *DEFINITY* ECS uses vectoring to process the call and uses EAS skills to deliver the call to an agent's voice terminal.

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3 Reporting progress—throughout this process the *DEFINITY* ECS is reporting the progress of the message call to the *CentreVu* Computer Telephony server. When the agent answers the message call, the agent's phone extension is sent to the ICM server by way of the *CentreVu* Computer-Telephony server so that the ICM server knows which agent to connect to the Control Window.

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4 Disconnecting the call—Once a call is connected, the agent can disconnect the call using different methods. The following list explains what happens during each disconnect method:

• If the agent hangs up using the voice terminal, the *DEFINITY* ECS notifies the ICM server by way of the *CentreVu* Computer Telephony server that the call has been dropped.

• If the agent drops the call through the Agent Control Window or the Close or Suspend button, the ICM server notifies the *DEFINITY* ECS by way of the *CentreVu* Computer-Telephony server that the call has been dropped.

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5 Log out—the agent can log out using different methods. The following list explains what happens during each logout method:

• When the agent logs out by way of the browser, the ICM server notifies the *DEFINITY* ECS through the *CentreVu* Computer-Telephony server by issuing a logout request.

• If the agent logs out by way of the *DEFINITY* ECS using the voice terminal, the ICM server is notified through the *CentreVu* Computer-Telephony server.

DEFINITY* ECS requirements for *Message Care The *Message Care* offer requires *DEFINITY* ECS G3, Release 6.3 ,which includes support for ASAI message calls. A message call originates under CTI control from a station administered without hardware (AWOH) - a station from which a *DEFINITY* ECS can send a message call, even though there is no physical telephone. This allows *Message Care* message calls into the *DEFINITY* ECS queue without using any port resources.

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The activated *DEFINITY* ECS features must include the following:

- Expert Agent Selection (EAS)
- ASAI or ASAI Proprietary Adjunct Links
- An analog line to the *DEFINITY* ECS for remote maintenance and access
- A *DEFINITY* ECS LAN gateway or MAPD for the ASAI link to the *CentreVu* Computer-Telephony software.

Dial plan

Although ASAI message calls do not use any port resources, you do need a dial plan on your *DEFINITY* ECS large enough to support the number of message calls you want to queue simultaneously. Message calls use vectors and queue slots. In addition, each *DEFINITY* ECS has a fixed number of ASAI associations available. The *Message Care* software uses one association for each Vector Directory Number (VDN) with currently active message calls, plus additional, temporary associations for adjunct route steps within the vectors involved. This makes it important to find out how many ASAI associations are available on your *DEFINITY* ECS.

Message handling vectors

CTI Interactions are possible; for more information, please see .

Your traffic engineering must also take into account the longer hold times normally expected in processing email. Queue allocation between mailboxes is also an important traffic consideration. For more information, please see .

It is important to include traffic and CTI considerations when designing your message handling vectors. Since vector-design requirements are different for each call center, the *Message Care* software does not include any automatic changes to vectoring or queuing mechanisms on the *DEFINITY* ECS. You must program your *Message Care* vectors to ensure that message handling meets your service objectives, for instance, to ensure that no message call simply sits in the queue indefinitely. For further information on designing for the *Message Care* software, see .

Mail server

About the mail server   The mail server containing the mailboxes polled by the *Message Care* software must be POP3-compliant over a Transmission Control Protocol/Internet Protocol (TCP/IP) stack. To handle outgoing messages from the *Message Care* software, the mail server must also be Simple Mail Transfer Protocol (SMTP)-compliant. Most leading mail servers provide both of these protocols. However, if necessary they can be on two separate mail servers.

An excellent example of such a server is the *Intuity AUDIX* server with Internet Messaging.

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Internet Call Manager server and CTI process

About the ICM and CTI
The ICM and CTI are software components which reside on an NT server. *Message Care* 1.2 will is compatible with ICM/CTI 3.0.

The ICM and the CTI exchange information about agent sessions (login, logout, agent idle, and so forth) and message call requests. For example, the ICM updates the Agent Control Window based on agent login status received from the CTI process. If an agent logs in to the *DEFINITY* ECS successfully, the CTI process informs the ICM and the ICM then updates the Agent Control Window with a "Login was successful" message.

Function of the ICM software

In general, the ICM provides the following functions:

- Maintains and monitors agent sessions
- Downloads the Agent Control Window and maintains their connections
- Updates the Agent Control Window based on agent login status
- Updates Agent Web pages based on call events

Function of the CTI software

In general, the CTI process provides the following functions:

- Logs agents in to the *DEFINITY* ECS
- Launches message calls
- Monitors message calls and reports events such as agent answer, drop call, and transfer back to the ICM.

Type of server required for the ICM software and CTI process

The following provides information about the type of server for which the CTI software and CIT process must reside:

- A 266 MHz *Pentium*-II based PC with at least 128MB of RAM, a CD-ROM drive, and a network interface card (NIC)
- *Microsoft Windows NT* Server operating system with Service Pack 3 or greater
- *Microsoft* Internet Information Services (IIS) Version 3 or greater.

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CentreVu Computer-Telephony for *Windows NT*

Description   *CentreVu* Computer-Telephony (Release 3.10 Version 2.1 or greater) is a software application that runs on a server to track and associate various elements of message calls. *CentreVu* Computer-Telephony (*CentreVu* CT) has an open architecture, based on the European Computer Manufacturers Association (ECMA) Computer Supported Telephony Application (CSTA) international standard, which allows customers to employ the communications system and Computer-Telephony Integration (CTI) software that best meet their needs. *CentreVu* CT enhances the functionality of existing communications and computer equipment.

The CTI process interfaces with the *CentreVu* CT server to monitor call progress information within the call center domain (and then passes this information to the ICM) and to launch calls through the call center.

Major components for *CentreVu* **CT**   Major components of *CentreVu* CT include the following:

- The *CentreVu* CT server—The *CentreVu* CT server acts as a conduit between individual client/server applications and the *DEFINITY* ECS. It routes return messages from the *DEFINITY* ECS to the client/server that expects them. It also ensures that agents log in using a valid login ID and password and that they have the required permissions to perform whatever action they are requesting.

- The Security Database (SDB)—This *CentreVu* CT database stores information about callers and the devices they control. Telephony Services uses this information for validation. Administrators can control caller access to *CentreVu* CT by placing restrictions on the types of requests callers can make. Telephony Services Release 2.32 uses Btrieve for the Security Database engine (the underlying software that controls data).

- Telephony Services Library (TSLIB)—TSLIB is a set of functions that act as an interface between client or server applications and the *CentreVu* CT server

The Private Branch eXchange (PBX) driver resides on the *CentreVu* CT server. It receives TSAPI messages from the *CentreVu* CT server and routes them to the PBX over CTI links, performing any necessary conversions in the process. It receives messages from the PBX, reformats them, and sends them back to the *CentreVu* CT server. The PBX driver is supplied by a PBX vendor.

Direct connections between other CVIS components and the *CentreVu* CT server include:

• TCP/IP to the CTI process

• TCP/IP to the *DEFINITY* ECS

Type of server required for *CentreVu* CT

Important! *CentreVu* CT can reside on the same server as the ICM software and CTI process.

The following provides information about the type of server for which *CentreVu* CT must reside:

• A 200 MHz *Pentium*-based PC with 128MB of RAM, a CD-ROM drive

• Two Ethernet Network Interface Cards (NICs)

• *Microsoft Windows NT* 4.0 Server operating system with Service Pack 3 or greater.

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Message Care software

Description The *Message Care* software builds upon the existing functions of a call center to include receipt, distribution, tracking, and reports of email and fax messages (as attachments to email).

The *Message Care* software, includes the following:

- Modules that poll the incoming mailboxes, control message flow, update the message database, and submit composed messages to an SMTP server for delivery

- Web pages and scripts that interact with your agents as they receive and process messages, and Web pages and scripts that interact with your supervisors as they generate reports

- Web pages and scripts that interact with your administrators as they use the Administration Interface

- Spelling checker for outbound messages

- Message database and interface

- Administrative database and interface

- Computer-Telephony Integration (CTI) control engine

- *Java* applet that downloads to the agent's desktop for login and PagePop

- The *Message Care* server and its associated CTI process that can be shared with the ICC offer

Type of server required for the *Message Care* software

Important! *Message Care* can reside on the same server as the ICM software, CTI process, and *CentreVu* CT.

The following provides information about the type of server for which *Message Care* must reside:

- A 266 MHz *Pentium* II-based PC (not multiprocessor) with 128MB of RAM, an 8-GB hard-disk drive, a CD-ROM drive

- *Microsoft Windows NT* 4.0 Server operating system with Service Pack 3 or greater.

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Agent requirements

What is needed?   The agent's environment consists of the following:

- A desktop on the LAN with one of the following operating systems: *Microsoft Windows* 95, *Microsoft Windows* 98, or *Windows NT* 4.0

- *Microsoft* Internet Explorer 4.x or greater, or *Netscape Navigator* 4.06 or greater, with *Java* and JavaScript enabled.

  All agent browsers must be optioned to support cookies. Cookies provide a way for *Message Care* to track an agent's processing patterns and, with the cooperation of the Web browser, to store the agent's data. To ensure that each Web page displayed contains current information, browsers for the *Message Care* agent should turn caching off.

- A voice terminal associated with the *DEFINITY* ECS call center.

- A virus checker is required to check incoming file attachments for viruses.

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Recommended (but not required) components

CentreVu **Call Management System (CMS) server**

The *CentreVu* CMS server is not required but is a useful tool to measure your agent's performance and must have the following hardware and software:

- CMS Server Hardware
- CMS Server Software

CMS server hardware

Lucent recommends (but does not require) a high-end *Sun SPARCserver* for the *CentreVu* CMS server.

CMS server software

The *CentreVu* CMS software must be R3V5 or later. The standard *CentreVu* reports are not formatted for the extended times in queue (hours rather than minutes) that you may need for message calls. Therefore, the *Message Care* software comes with a set of reports formatted to display these times.

For further information on *CentreVu* reports covering message calls, see .

> **Important!** To make use of the *CentreVu* Advocate features in Release 6.3 of *DEFINITY* ECS, CMS must be R3V6 or later. Note also that *BCMS Vu* cannot track message calls with queue times exceeding 19 hours. Thus, if you expect message calls with longer holding times than 19 hours, you should not use *BCMS Vu*.

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How does the *Message Care* work?

Scenario   The typical scenario for processing a message involves a consumer (the person who sends the message to your call center) and an agent (your call center representative, who interacts with the consumer).

Diagram   The following diagram illustrates the message handling flow process:
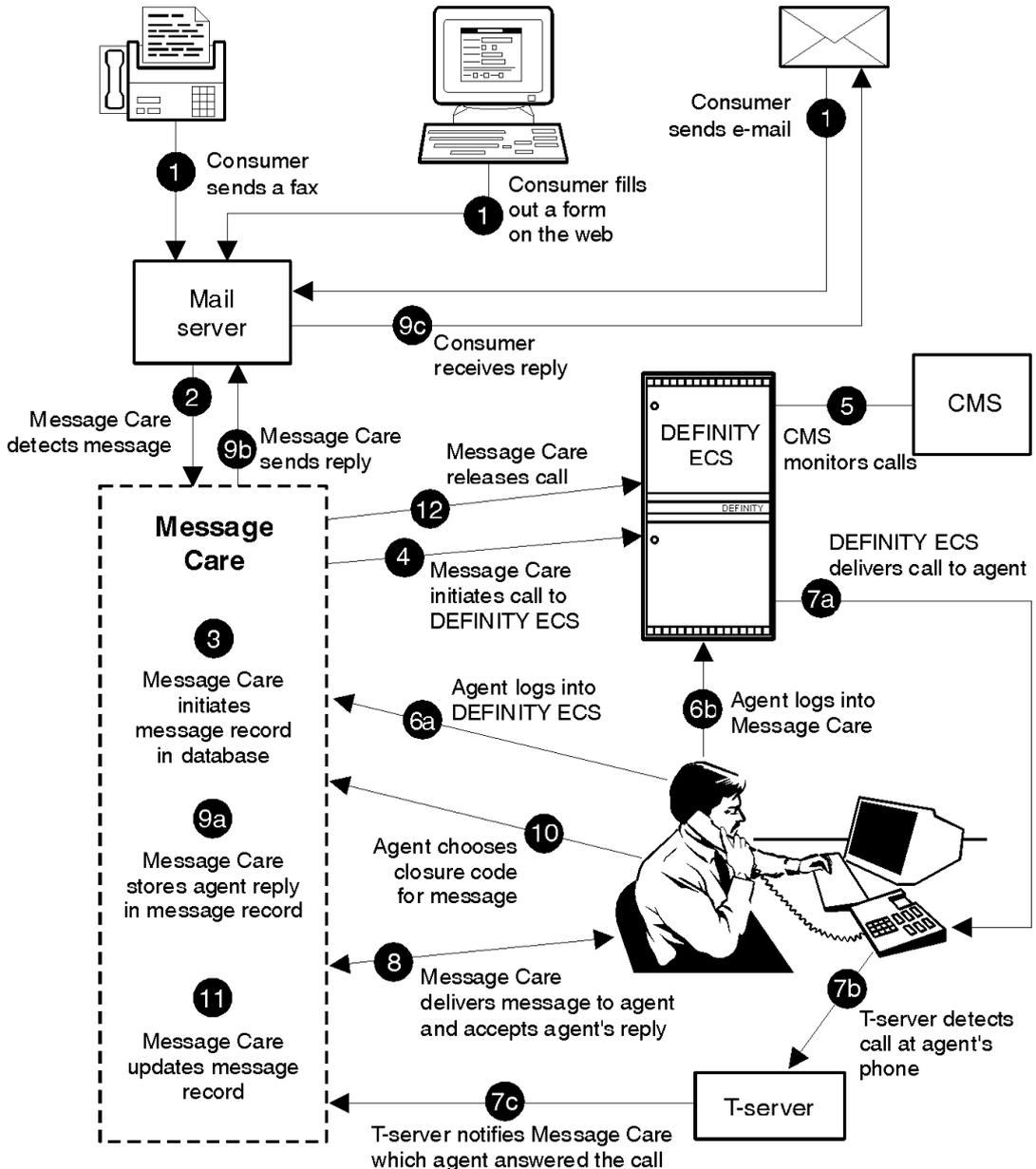
**Typical scenario for
message calls**

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1 A consumer sends a message to the call center by one of the following methods:

- Sending a fax to a number that you have set up to receive and store the faxed messages in a POP3-compliant mailbox

- Sending free-form email to a mailbox on your POP3-compliant server

- Choosing the Write Us button on your Web site. In this case, a form appears, prompting the consumer to compose a message and send it to your call center.

   The information you request on the form can help specify the skill set needed to respond to the consumer. When the consumer chooses the Send button on the message form, your Common Gateway Interface (CGI) script uses the consumer's choices (and/ or other available information, such as the site where the consumer found your Write Us button) to address the message to a POP3-compliant mailbox corresponding with the skill set needed.

At the call center, messages can also go through a commercial filtering and sorting utility, if desired, to ensure that they arrive in the most appropriate mailbox and receive the most efficient service.

....

2 The *Message Care* software detects the consumer's arriving message by polling an administered list of mailboxes every five minutes.

....

3 The *Message Care* software copies the message into an Open DataBase Connectivity (ODBC) database, where it receives a tracking number, and removes it from the mailbox. The database record includes tracking information such as the time of arrival, the message originator, and the mailbox where it arrived.

If so enabled, the *Message Care* software automatically sends a preformatted acknowledgment to the consumer, indicating that the message has arrived and provides the acknowledgment with a tracking number.

If the message comes from an address on an administered list of undesirable addresses (for instance, known sources of junk mail or bulletins from internal post masters), the *Message Care* software stops here and does not process the message for delivery to an agent.

....

....

4   The *Message Care* software initiates a call to the *DEFINITY* ECS, using the Vector Directory Number (VDN) administered for the receiving mailbox. (If this message is a response concerning another message which the *Message Care* software is currently handling, the *Message Care* software links it to the call for that original message.)

If incoming messages exceed the administered capacity, the *Message Care* software holds the overflow messages and initiates message calls for them as resources become available.

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5   *CentreVu* CMS begins tracking the message when the *DEFINITY* ECS launches the message call, using its assigned VDN. The *DEFINITY* ECS queues the message call just like a normal call, so CMS also sees it as a normal call and tracks standard call statistics such as queue times and "talk" time (meaning, the time the message call is active at the agent's phone), just as it would for traditional voice calls. CMS tracking continues as long as the message call lasts.

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6   An agent logs into the *Message Care* software and the *DEFINITY* ECS.

Normally, the agent uses a workstation at the call center, but the *Message Care* software can also provide for remote agents. For further information on enabling remote agents to handle *Message Care* message calls, contact Professional Services at 1-800-4NetCare.

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7   The *DEFINITY* ECS selects an available agent according to the vector associated with the assigned VDN, and sends the message call to the agent's telephone. When the agent answers, *CentreVu*CT sends a message call-answered notification to the *Message Care* software. Meanwhile, if the VDN so specifies, the agent hears an announcement stating that this is a *Message Care* message call.

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8   When the *Message Care* software receives the message call-answered notification, it delivers the message to the agent through a PagePop, a feature that automatically displays Web pages based on message call events:

- The *Message Care* software supplies the agent's browser with the URL associated with the mailbox that received the consumer's message. This URL calls a Common Gateway Interface (CGI) script. The *Message Care* software supplies parameters to the CGI script, specifying the message components to display. The script then accesses the ODBC database of messages, retrieves that set of components from the consumer's message, and dynamically generates a Web page. This Web page presents the contents of the received message to the agent. The Web page also presents the tools necessary to compose a response.

- If the message includes attached files, such as a fax image, the *Message Care* software lists the attachments. Helper applications administered in the agent's browser provide access to these files.

  You must provide the appropriate helper applications for each agent, based on the types of message you expect that agent to receive. For instance, agents who process faxes must have a helper application for viewing and handling them.

- The agent handles the message, using the controls supplied on the Web page that appears.

....

9   The *Message Care* software submits the agent's reply for delivery by a mail server, using Simple Mail Transfer Protocol (SMTP) protocols. It also stores a copy of the reply in the message database, linked to the original incoming message.

....

10   According to customer supplied closure codes, the agent selects a closure code for the message. For instance:

•   Reply sent

•   Order processed

•   No action taken—junk mail

The record for the processed message remains in the database so you can include it in reports and look it up if future messages make it useful to do so.

....

11   The *Message Care* software releases the message call.

☐

Where can I get offer assistance?

Offer assistance The Helpline number for all Lucent Technologies products is 1-800-242-2121. Call this number for help with *Message Care*. Be prepared to identify the offer you are calling about (for example, the *Message Care* software) and to describe the problem. When you receive your trouble ticket number, write it down so you can use it to expedite any future calls on the same subject.

Helpline services, except for consultative services, are available to customers using a product covered by warranty or a valid maintenance contract, during the hours specified in the contract. If you do not have such a warranty or contract, you can still use Helpline services for the appropriate time-and-materials charges.

You may be able to save time by checking information before you call. Many issues that can arise are easy to handle if you follow the instructions provided in these chapters.

Message Care training considerations The following two methods of training are available for the *Message Care* offer:

- Training job aids
- Onsite instructor-led training

Training job aids

Job aids are intended to be used for self-paced training. The job aid training package consists of ten agent job aids and one administration job aid. The agent job aid provides step-by-step instructions on how to process message calls. The administration job aid provides step-by-step instructions on how to administer the *Message Care* offer.

Onsite instructor-led training

Onsite instructor-led training includes administration and agent instruction tailored toward meeting the needs of your call center. You can purchase and scheduled onsite instructor-led training as part of the *Message Care* installation process.

Other training available

Training in a classroom, on a CD-ROM, or in a video format is available from Lucent Technologies for all other aspects of call center operations . The *Message Care* offer is included as part of standard call center training.

For more information about training, contact Lucent Technologies on 1-800-255-8988.

Optional professional services

Lucent Technologies provides a wide array of professional pervices offerings to assist with the *CentreVu* Internet Solution. Lucent Technologies has highly trained and experienced resources ready to work for you. If you are interested in the offers below, or want to inquire about other services, contact 1–800–4NetCare for details. These offers include:

Network Integration Services

This offer provides engineering assistance in planning, provisioning, and upgrading a *Message Care* offer.

Call Center Application Integration Services

This offer provides an experienced Lucent Technologies Call Center consultant to evaluate a call center and engineer the optimum configuration for it.

Call Center Tune-Ups

This service is provided on an as-needed basis or seasonally, to fine-tune a call center's configuration and translations based upon available reports and feedback.

Firewall Offers

This offer provides the Lucent Technologies Network Consulting Group that can engineer, provision, and maintain a new or existing firewall. They also offer testing of an existing infrastructure to ensure security. Equipped to provision and administer the leading enterprise firewall product offerings, the Network Consulting Group can help ensure that a network provides the access its callers require while protecting valuable internal resources.

Data Networking Equipment and Services

This offer provides the Lucent Technologies Advanced Data Networking Group that can engineer and provision industry-leading solutions from Lucent Technologies, Agile (a Lucent Technologies Company), Bay Networks, Ascend, Paradyne, Hypercom, and other leading edge companies. Solutions are maintained and monitored by Lucent Technologies' NetCare Services, the oldest and largest network management service in the industry. Lucent's data networking solutions provide solid, highly available infrastructures on which to base business applications.

☐

2   Prepare your call center for the *CentreVu* Internet Solution

Overview

Purpose   This section explains how to prepare your call center so that you can integrate the *CentreVu* Internet Solution quickly and effectively.

Audience   This section is intended for installers, system administrators, or any other persons involved in connecting or installing hardware or software for the *CentreVu* Internet Solution. This includes Lucent Technologies' Technical Support organizations.

Contents   The following information is described:

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References   The following documentation contains information relevant to the connectivity of the *CentreVu* Internet Solution:

- *DEFINITY* ECS documentation

- *CentreVu* Computer-Telephony documentation

CentreVu Internet Solution standard configuration

Overview

Purpose   The purpose of this section is to provide the recommended
configuration for the *CentreVu* Internet Solution.

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Standard configuration

Illustration   The figure which follows represents a typical *CentreVu* Internet Solution topology. Disregard any hardware or software that you did not purchase for your particular *CentreVu* Internet Solution.
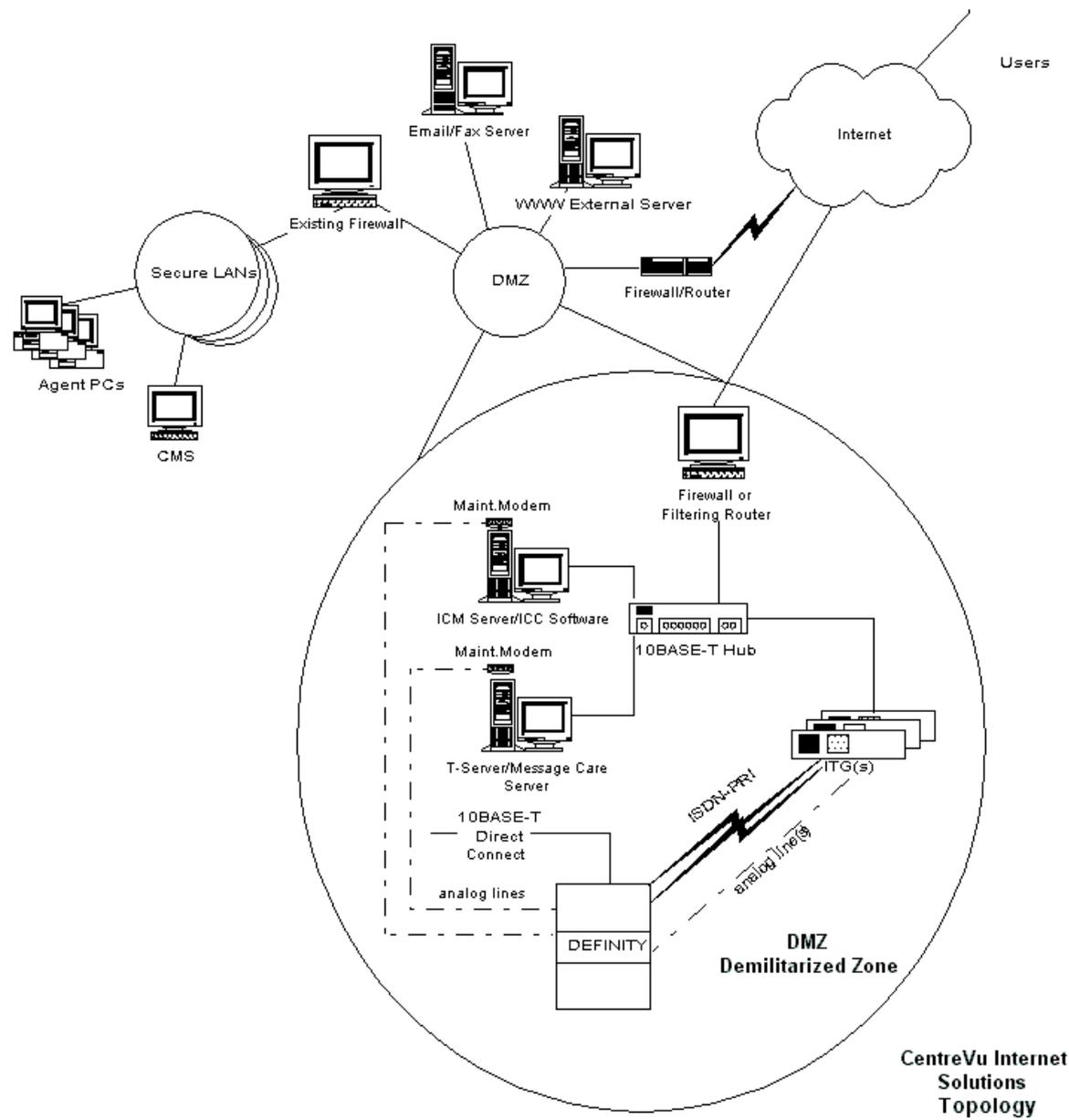
CentreVu Internet
Solutions
Topology

How components are connected

Overview

Purpose   The purpose of this section is to describe how to connect each *CentreVu* Internet Solution component.

Contents   The following components are discussed:

- DEFINITY ECS: page 2-5

- CentreVu Computer-Telephony for Windows NT: page 2-6

- Ancillary CentreVu Internet Solution components: page 2-7

☐

DEFINITY ECS

Connectivity   The *DEFINITY* ECS connects to the *CentreVu* Computer-Telephony server by way of a *DEFINITY* LAN Gateway card or a MAPD TN800 board with LAN Gateway software. This *DEFINITY* LAN Gateway card and the MAPD TN800 board provide a 10BASE-T connection which is either directly cabled to the *CentreVu* Computer-Telephony Server through an Ethernet cross-over cable, or is cabled to a 10BASE-T hub to which the *CentreVu* Computer-Telephony server is also connected. If you are using the LAN Gateway card, five available contiguous slots for the LAN Gateway card are needed. These slots cannot be in carrier C of a multi-carrier cabinet, or in a carrier already containing a LAN Gateway or *DEFINITY AUDIX* system. If you are using a MAPD TN800 board, three slots are required instead of five.

The *DEFINITY* LAN Gateway or MAPD board should not be connected to the *CentreVu* Internet Solution subnet or any other network. The Ethernet connection between the *DEFINITY* ECS and the *CentreVu* Computer- Telephony server carries the *DEFINITY* ECS Adjunct/Switch Applications Interface (ASAI) message set, which should remain local to these two devices. The *CentreVu* Computer-Telephony server terminates this message set and provides the standard JAVA Telephony Services Application Programming Interface (JTAPI) to the *CentreVu* Internet Solution subnet.

See the *DEFINITY Enterprise Communications Server, Installation, Administration, and Maintenance of CallVisor ASAI over the DEFINITY LAN Gateway (555-230-223)* document for complete details.

Planning   An existing LAN Gateway card (or MAPD board) and/or an existing *CentreVu* Computer-Telephony server may be used. However, discussions regarding security and interoperability of this design must take place prior to implementation. Such designs should be configured and technically assured by a Lucent Technologies Account Team through normal channels for *CentreVu* Computer-Telephony server support.

☐

CentreVu Computer-Telephony for *Windows NT*

Connectivity
The *CentreVu* Computer-Telephony Server has two NICs to enhance security between the *DEFINITY* ECS and the data network. The NIC used to connect the *CentreVu* Computer-Telephony server to the *DEFINITY* LAN Gateway card must be a 10BASE-T NIC. (A 10/100BASE-T card is not supported even if it is optioned for 10BASE-T only.) The other NIC provides the standard TSAPI to the *CentreVu* Internet Solution subnet.

The *CentreVu* Computer-Telephony server also contains the Computer Telephony Integration (CTI) process provided with ICC software. The CTI process provides an interface between the Internet domain and telephony functions of the switching domain of the call center. The CTI process interfaces with the ICM to pass incoming message requests to the call center and to pass call center status and responses back to the ICM. The CTI process interfaces with the *CentreVu* Computer-Telephony server to monitor call progress information within the call center domain and launch calls through the call center.

Installation and connection of the *CentreVu* Computer-Telephony server are performed by the Lucent Technologies' Professional Services Organization.

□

Ancillary *CentreVu* Internet Solution components

Overview

The components discussed below are considered ancillary. They play an important role in providing transport and protection of message calls but do not contribute directly to feature functionality of the *CentreVu* Internet Solution.

LAN connectivity

The LAN, composed of hubs, routers, and possibly switches, is used to connect *CentreVu* Internet Solution components, including agent PCs. The LAN that agents reside on can be of any type, but *CentreVu* Internet Solution components are supported only using an Ethernet interface. The LAN must provide dependable transport between agent PCs, the Internet, the Web server, and *CentreVu* Internet Solution components. *CentreVu* Internet Solution communications between the agent and the ICM server use TCP connections that must remain up for the duration of an agent's logged-in time.

Lucent Technologies' Advanced Data Networking specialists or NetCare Services can assist in provisioning and tuning data networks. Contact your Lucent Technologies Account Team for information and assistance.

WAN connectivity

The WAN, composed of routers and possibly switches, is used to connect the Internet to *CentreVu* Internet Solution components. It may also be used to connect agents to the ICM server if the agents are on remote *DEFINITY* ECS expansion port networks (EPNs). The WAN must provide dependable transport of message calls between agent PCs, the ICM server, and any servers (including those on the Internet) the agent uses to service message calls.

As with the LAN, communications between the agent and the ICM server use TCP connections that must remain up for the duration of an agent's logged-in time.

Support from Lucent Technologies

Lucent Technologies' Advanced Data Networking specialists can assist in provisioning and tuning data networks. Contact your Lucent Technologies Account Team for information and assistance.

Web server connectivity
A Web server may be on site behind a firewall, in a minimally firewalled subnet, on the Internet and not firewalled, or even across the country, hosted and managed by another organization. A Web server contains the Web pages that make up a call center's Web site. One of these pages may be the login page for agents. This page should not be known outside the organization or may be housed on a separate Web server.

The Web server is the first point of contact for any *CentreVu* Internet Solution activity. When agents log in, they generally access the login page from this Web server. For this reason, the Web server and services surrounding it must be as robust as any of the other *CentreVu* Internet Solution components. Just as the LAN and WAN must provide reliable transport, the Web server must provide reliable services.

Domain Name Server (DNS)
Domain Name Servers are used to reconcile machine names to IP addresses. Since names are almost always used in URLs, the failure of a DNS can prevent connectivity to these web servers. This can cause problems with logins, Web page access, and caller communications. The reliability of DNSs can affect the overall ability of the call center to service the Internet.

Firewall
One of the most important components of a call center's Internet connection is the firewall. The firewall protects a call center's internal assets from the general public on the Internet. It also helps to protect against malicious damage to internal networks.

CentreVu Internet Solution components are generally placed on their own subnet (as illustrated in the *CentreVu* Internet Solution Topology figure). This placement keeps *CentreVu* Internet Solution traffic off the call center's network and allows the firewall to pass messages through the ports necessary for *CentreVu* Internet Solution functionality without significantly disrupting existing firewall rules for internal networks. The firewall ports to the *CentreVu* Internet Solution subnet allow *CentreVu* Internet Solution-required TCP and User Datagram Protocol (UDP) traffic, while firewall ports to internal secure LANs drop such traffic.

Support from Lucent Technologies
Lucent Technologies' Network Consulting Group can provide an enterprise firewall. This group can also test firewalls for security, lock down Intranets, and provide ongoing, periodic security checks. Call (972) 419-3803 or email *security@lucentncg.com* for details on these and other offers.

□

Security

Overview

Purpose   The following section provides a high-level overview of security recommendations for *CentreVu* Internet Solutions.

Contents   Security information for the following areas are described:

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Message privacy

What needs to be secured?

Messages in the message storage system are accessible only through Web pages or direct access to the *Microsoft* Access database which stores message information. Only agents currently logged into the *Message Care* software can retrieve messages through the Web pages provided by the *Message Care* software. You need to control direct access to the database through the NT server user restrictions or other standard access control mechanisms in place on your network.

Before messages enter the message storage system, they reside in receiving mailboxes on the POP3 mail server. To protect the security of these mailboxes, use the same measures you use to protect other mailboxes.

☐

Message Care Reports

What needs to be secured?

The *Message Care* software uses NT password protection for reporting capabilities. You need to control direct access to the reports database through the NT server user restrictions or other standard access control mechanisms in place on your network.

If you want to restrict access to the *Message Care* database and *Message Care* Web pages, you must ensure the following on the *Message Care* server:

- Password protect the following directory:

  Program Files/Message Care/WWW/Reports

- Follow the directions located in the <u>Administration Web page security: page 2-12</u> section that follows.

☐

Administration Web page security

What needs to be secured? You can restrict access to the administration Web pages to only authenticated clients. By using authentication, only those clients having a valid user name and password are permitted to access the administration web pages.

If you want to restrict access to the *CentreVu* Internet Solution administration Web pages, you must ensure the following:

- The following directory on the *Message Care* server is password protected: *Message Care* administration— *C:\Program Files\Message Care\WWW\admin*

- The ITG installation directory (*c:\itg*) is installed on an NT File System (NTFS) file system.

- The *C:\itg\admin* directory on the ICM server is password protected.

  The IIS software must be configured to handle authentication. The following are two methods of authentication:

  – Basic (Clear Text). This method of authentication sends the client's *Windows NT* user name and password over the networks unencrypted.

  – Windows NT Challenge/Response. This method of authentication protects the password thus providing for a secure login over the network. However, this method of authentication is supported only by *Microsoft* Internet Explorer 2.0 or greater.

Once you have ensured the above, you can add users and allocate permissions on the ICM server.

☐

Prepare your call center for the CentreVu Internet Solution

Message Care Solution Guide for the CentreVu Internet Solution, 585-...

ICM and *CentreVu* Computer-Telephony server security

What needs to be secured?
The ICM server and *CentreVu* Computer-Telephony Server require direct-dialed analog lines. The *pcANYWHERE* software and a modem are used to provide remote maintenance, diagnostics, and support for the ICM server and the *CentreVu* Computer-Telephony Server. This software is very important for the maintenance and support of these servers. It does, however, offer an access point into your server and, possibly, into your network. Therefore, we also recommended that the *pcANYWHERE* software be, at a minimum, password protected. Please consult the *pcANYWHERE* documentation for additional security recommendations.

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Message Care server security

What needs to be secured? The *Message Care* server requires direct-dialed analog lines for remote diagnostic and maintenance support. This remote support is used for all components of the *Message Care* software. *pcANYWHERE* software and a modem are used to provide remote maintenance, diagnostics, and support for *Message Care*. This software is very important for the maintenance and support of these servers. It does, however, offer an access point into your server and, possibly, into your network. It is recommended that these dial-in ports also be protected by an RPSD lock.

□

Firewall guidelines

Overview

Purpose   The purpose of this section is to discuss firewall guidelines for your *CentreVu* Internet Solution.

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Firewall security for *Message Care*

About The main line of defense for your data networks is your firewall. By properly configuring the firewall, you can prevent data from outside the firewall from entering your internal LAN unless they meet specific rules and requirements administered on the firewall. You have probably already designed your firewall to allow appropriate email to pass in and out of your call center, so the *Message Care* software poses no additional security risk to your LAN.

□

Design considerations for *Message Care*

Overview

Purpose The purpose of this section is to help you design your *Message Care* solution.

☐

What needs to be defined?

Introduction   Designing for the *Message Care* software is primarily a matter of defining the following:

- The mailboxes for the *Message Care* software to poll—ensuring that messages arrive in the correct mailbox is the first step in routing them to the best agents to handle them. The mailbox for which a message arrives determines the VDN that the *Message Care* software uses to deliver the message.

  In addition, the mailbox that receives a message determines what acknowledgment (if any) automatically goes out as soon as the *Message Care* software receives the message.

- The VDNs and vectors needed to deliver the messages efficiently—a mailbox can have several associated VDNs or a single VDN. The *Message Care* software can search the subject of the message for keywords, and associate each keyword with a VDN.

- Mail Server—if you are going to use blind copies, ensure that your Simple Mail Transfer Protocol (SMTP) server supports blind copies.

  If your mail server is *Intuity AUDIX*, then the return address must be a valid mailbox address; otherwise, the message will not be delivered.

To develop your *Message Care* design, consider the flow of the messages you expect to receive, from their point of origin through the point where the consumer's request is satisfied. If you are unfamiliar with this flow, review it in . Start by considering the consumer who sends the message.

□

Who is sending the messages, and what do they want?

Introduction The design of your *Message Care* software depends on the types of messages you expect, your service expectations for handling each type, and the agent skills required to handle them. This means that you want to sort messages according to a number of different factors.

Factors in determining how to sort messages

Consider the following factors when you are determining how you will sort messages:

- Queue Limits

    Vector programming in *DEFINITY* ECS can restrict the number of message calls that may be queued for a specific agent skill set. This ensures that a single mailbox cannot use all purchased resources and restrict delivery from other mailboxes.

    Skill type—the following factors are valuable in determining the skills required to handle a message (for example, sales or support group skills):

    – The product or service for which the consumer wants information

    – Whether the consumer already has the product or is considering purchasing the product

    – Whether the consumer's question is technical or general

    – The urgency of the consumer's question

- Auto-Acknowledgment

    The auto-acknowledgment can reassure a consumer and thus reduce future inquiries about the progress of email queries.

    The following factors should influence your decision about whether to have the *Message Care* software send an auto-acknowledgment to the consumer before launching a message call: How promptly do you want the consumer to hear back from you? Do you want to assure the consumer that the message did not get lost in the Internet?

Example using the three sorting factors

Skills, queue limits, and message call priority are illustrated in the following example:

If a center supports four mailboxes: 1, 2, 3, and 4 and the total *Message Care* capacity purchased is 100, using vectors, the center can limit the number of message calls going to a message skill to 25 and assign a unique skill to each mailbox. Therefore, at any time, only 25 message calls can be queued in *DEFINITY* ECS for each mailbox.

Note that when a message call is active at an agent, this threshold does not apply. Therefore, there may be 25 message calls queued and an additional 25 message calls active at agents. If Mailbox 1 and 2 each receive 50 messages, but no messages arrive in C and D, and fewer than 50 agents are active on message calls, *Message Care* will have sufficient resources to launch message calls. However, *DEFINITY* ECS vectors will drop the messages calls once 25 have been queued. Just like voice call design, the queue limit applies only to calls queued. Once a call is active at an agent, the queue slot is available for another call.

☐

In what forms are the messages arriving?

Introduction The messages you can route and track include:

- Forms-based email—email generated by a form on your Web site
- Free-form email (including file attachments)
- Faxes

The only requirement is that the messages you want to route and track comply with Internet messaging protocols. The following sections provide planning information for each type of message.

Forms-based email Consumers can choose a Write to Us link on your Web site, and see a form that you have designed for generating email. The form prompts the consumer to provide the information you need in order to process a request efficiently and effectively. For instance, you can ask consumers whether they have purchased products or services from you before and which products they were. At a minimum, it is important to require an email address where you can reach the consumer. For messages sent from a form, the return address for the message originator should be designed to be the consumer, not the mail server.

Planning your forms-based email

Planning this form is similar to planning a menu for routing voice calls. Fortunately, however, a Web form on the screen is easier for consumers to follow than a voice menu is. This means that you can request more detailed information to help route their requests to the correct agent. When the consumer chooses the Send button, the Common Gateway Interface (CGI) script behind the form uses the entered data to compose a message that complies with Internet messaging protocols, and sends it to the appropriate *Message Care* mailbox. The factors determining this mailbox may be part of the information provided by the consumer. The Web page where the consumer chose your Write to Us link may also help. For instance, if the consumer was browsing your new products page, the message might go to *new-orders@callcenter.com*.

Routing your forms-based email

In some cases, you may choose to route these messages first to system software on your Web server, before they ever reach a *Message Care* mailbox. This software may be able to use the information from the form to generate a sufficient answer for the consumer automatically, so that the consumer receives the desired information or assistance without the need for a live agent. Otherwise, the software can route the message to the appropriate *Message Care* mailbox.

What *Message Care* does with forms-based email

Once the message arrives in a *Message Care* mailbox, the *Message Care* software picks it up and gets it to an agent who can handle it. You need to create a form for generating email from your Web site. The best design for the email form on your own Web site depends on what information you need to handle a message effectively.

Examples of key information for a form

Key information that the form should gather includes the following:

• Information to identify the consumer, such as account number or home address

• Contact information about the consumer, such as the return email address or a phone number to call back

• Selection options which, taken together, identify the appropriate skill group for handling the consumer's request.

Support from Lucent Technologies

Only someone familiar with your business can specify exactly what information you need. However, Lucent Technologies Professional Services offers assistance in designing and constructing your "Write to Us" form. To contact Professional Services, call 1-800-4NetCare.

Free-form email   Consumers can send a free-form text message to an Internet address you publish. You probably already have at least one such address for general inquiries. You can publish additional addresses to match specific product lines, business interests, consumer concerns, and marketing campaigns. The *Message Care* software can receive all of these messages, as long as they comply with Internet messaging protocols, and deliver them according to the instructions for the mailbox where they arrive.

Processing free-form email

Normally, free-form messages to a general address require more processing time. Before anyone can actually handle the request in the message, someone must analyze the message, determine what the request is, decide who is best qualified to handle it, and send it to that person.

However, you can automate this process by routing email through a sorting utility. Several commercially available mail-sorting utilities are capable of using rules and filters you specify to analyze a message and, when appropriate, put it into one of the mailboxes monitored by the *Message Care* software.

File attachments   Attachments can include any type of file. However, you must supply your agents with helper applications for handling these attachments. The selection of helper applications you need to supply for your agents depends on the types of files you expect your consumers to send. These may include plain text, graphics, voice or other sound files, and files created in various spreadsheets, word processors, databases, and other applications.

It is recommended that a virus checker such as McAfee VirusScan be installed on the agent's desktop in order to perform virus checking when opening file attachments received in email.

Faxes   From the point of view of the *Message Care* software, a fax is actually just one more type of file attachment to the messages it receives.

Consumers send their faxes to a number you publish. Most email servers support a fax server interface which enables the mail server to accept fax image files and store them electronically, as a file attachment to a message. An excellent example of such a server is the *Intuity AUDIX* server with Internet Messaging.

How *Message Care* works with faxes

The *Message Care* software works with the mail server to accept messages that include fax images and deliver them according to the VDN for the mailbox where they arrive. This VDN should stipulate that such messages go only to agents able to view fax files. To work with fax images received through the Message Care software, agents must have helper applications for handling faxes through their browser.

Faxes normally have a callback number but not an email return address. Without such a return address, the *Message Care* software cannot get an auto-acknowledgment to the consumer. Thus you should plan your mailboxes to keep fax messages separate from any messages where you want to send the consumer an auto-acknowledgment.

Note that the *Message Care* software does not provide tools for responding to faxes.

☐

Where do you want the messages to go?

Introduction

The following are cases where email messages from consumers should go directly to a specific agent instead of through a general mailbox:

- Direct Correspondence with Agents
- *DEFINITY* ECS Expert Agent Selection

Direct correspondence with agents

Direct agent work occurs in the following cases:

- When new work requests are directed to a specific agent
- When messages are received from SMEs
- When the agent suspends a message. When an agent suspends a message, the message is dormant until the time comes for it to be reactivated. Agents may manually request that a message be returned or the timer may expire. In either case, *Message Care* returns the message to the suspending agent.

In the first and second case above, a special mailbox is not required.

Using vectors

The vector associated with a VDN may specify a skill set needed to respond to the message, or it may route the message directly to a specific agent.

Depending on your business practices, email sent directly to an agent may come from the following:

- Consumers to whom the agents have given their personal address because they have formed a relationship
- Consumers inquiring about something handled by only one particular agent
- Other agents or consultants who are responding to *Message Care* messages forwarded to them

If you choose to have the *Message Care* software support these messages, it is important to set up your vectors accordingly. Vector programming can ensure that work is handled when agents are sick or on vacation. For more information on vectoring, please see the section.

Messages that should not go through the *Message Care* software

Some of the email for individual agents should not go through the *Message Care* software; for instance, notices about training courses or changes in the work schedule. If the *Message Care* software were to handle these messages, the statistics on their handling times would contaminate the data on the efficiency of your call center. However, email from a consumer, or email about a message from a consumer (whether from inside or outside your organization), should always go through the *Message Care* software, to ensure start-to-finish statistics on handling consumer concerns.

In summary

Thus any agent expected to receive direct correspondence from consumers should have two mailboxes, one for *Message Care* messages and one for other email.

DEFINITY ECS Expert Agent Selection

The actual functionality of the *DEFINITY* ECS can be described in the context of agent operations during *Message Care* message calls. To staff *Message Care* agent positions, agents use a browser to access a login Web page and input their Expert Agent Selection (EAS) agent ID and the physical extension where they will take message calls. The agents submit the completed form to the ICM server. The ICM server sends login requests containing agent IDs and extensions to the *CentreVu* Computer Telephony Server, which uses ASAI to log agents in. This lets the *DEFINITY* ECS know about the agents. Refer to the *DEFINITY ECS Release 6 Call EAS Issue 2 Guide (555-230-521)* document for details on EAS.

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Vectors

Introduction
For each message coming into a *Message Care* mailbox, the *Message Care* software tells the *DEFINITY* ECS to launch a message call using the VDN associated with the mailbox where it found the message. EAS on the *DEFINITY* ECS then uses the vector associated with that VDN to give the message a proper place in the queue and to select an agent qualified to process the message. To expand the routing possibilities for each mailbox, the *Message Care* software also provides sorting within a mailbox by up to ten keywords, each with its own VDN. The *Message Care* software searches the subject of the message for each keyword in turn. If it finds none, it uses the default VDN for the mailbox. Keyword sorting is limited to the message subject only, not the message body.

In addition, CMS uses the VDN associated with a message call in organizing its reports. Thus each mailbox should normally have its own VDN for successful measurements, even if multiple VDNs all point to the same agent skill set.

To route messages to the correct agents, and to track the management information you require, it is crucial for you to define your VDNs and vectors carefully.

Issues that affect how you define your VDNs

The following issues (priority, skills, and tracking) affect how you define your VDNs:

- What is the priority of each message?

  EAS on the *DEFINITY* ECS uses the vector to determine the place of each message call in the queue. For instance, one VDN can point to a vector requiring that messages receive an answer within two hours, while messages with another VDN can wait up to six hours.

- What skills do agents need in order to handle the messages?

  Defining the skill groups for handling *Message Care* messages is essentially the same as defining skill groups to handle voice calls. You need to consider your standard factors in setting up skill groups, such as the agents' language capabilities and their knowledge of your products.

  In addition, the members of each skill group receiving *Message Care* calls must have the following:

–   Knowledge of how to use a Web browser

–   Good written communication skills

–   Facilities necessary to view the messages; for instance, to work with faxes, agents must have a helper application for handling fax images through their browser

–   Ability to handle message calls and regular voice calls. However, the two types of calls should come from separate VDNs to ensure accurate reporting.

•   How do you want to track the messages?

Talk time for a message call is defined as the email work time for an agent. The importance of the VDN to message call tracking arises when you want to sort reports according to internal factors such as the origin of a message, its priority, the type of request it contains, or its method of transmission, such as free-form email versus email from the form on your Web site. To sort data on these factors, each type of message must have a unique VDN which indicates this information.

General guidelines for designing vectors

The following are general guidelines for designing your vectors.

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Queue/hold time

Due to the potential rollover of statistical values in *DEFINITY* ECS, vectors designed to support message calls should ensure that a message call not be queued within a single vector for more than eight hours.

Hold time should be limited due to rollover of certain message call tracking values in *DEFINITY* ECS.

CTI Interactions

If you are using multiple CTI applications and one or more of the other CTI applications have a need to monitor *Message Care* message calls, there are some guidelines that need to be followed in order to avoid the possibility that *Message Care* will lose monitoring for the *Message Care* message call.

For CTI applications that will be monitoring message calls through VDNs, these applications should monitor the same set of VDNs that are being monitored by the *Message Care* software. These VDNs are those that have been assigned to the mailboxes.

If the *Message Care* message calls get redirected to subsequent VDNs (through vectoring, through adjunct routing or by agent transfers/ conferences), these subsequent VDNs should not be monitored by the other CTI applications. Both *Message Care* and the other CTI applications will continue to receive information about these message calls through monitoring on the initial VDN even though the message calls have been redirected to other VDNs. If the other CTI application does monitor these subsequent VDNs, it is possible that *Message Care* will lose track of the message call and thus, prevent it from doing a PagePop.

Message Care will lose track of the message call if the other CTI application either uses a different platform for CTI connectivity to the *DEFINITY* ECS (for example, CallVisor PC) or uses a separate CTI link. If the other CTI application needs to monitor *Message Care* message calls, it should monitor the initial VDN. If both *Message Care* and the other CTI application monitor only the initial VDN, both applications will continue to get events for the message call even if the message call gets redirected to the other VDNs. In some of the sample vectors shown below, message calls are redirected to other VDNs for the purpose of "de-queuing/re-queuing" message calls. In the following examples, the other CTI application should not be monitoring these subsequent VDNs.

Miscellaneous vectoring considerations

Consider the following when creating vectors for *Message Care*:

•   All message calls must be placed to a VDN, not an agent ID or extension.

•   Message calls should not queue for more than eight hours.

•   Other CTI applications should monitor only the originating VDNs used to deliver message calls. If subsequent vector processing routes message calls to VDNs monitored by other CTI applications, *Message Care* will not be able to perform the message delivery.

•   When relaunching a message call due to a released call (vector disconnect) the original VDN of the receiving mailbox will be used. For example, assume a message was delivered through VDN 1001 to agent 456. Agent 456 then transferred the message call to VDN 2000. If the vector associated with VDN 2000 disconnected the call due to queue limits, *Message Care* will relaunch the call, but to VDN 1001.

- Check that the vector disconnect, which is a system-wide parameter, will support the queue times required for message calls. If blank, *DEFINITY* ECS will not enforce any time outs.

- All agents should be assigned a coverage path to support returning suspended and retrieved messages. Coverage criteria should support agent not logged in, busy conditions, and no answer.

- If agents require coverage only for message calls, then the coverage criteria should be set to allow a long wait time at the agent's station.

- Both retrieve and suspend VDNs can be programmed to use a *Message Care*-provided adjunct route step which will provide the agent ID of the agent who initiated the retrieve request or suspended the message.

- *Message Care* limits the time a message call can be active (default-240 minutes or 4 hours) and limits the time of a launched message call (default-450 minutes or 7.5 hours). When designing vectors, consider that *Message Care* will drop active and launched calls after the specified time period.

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Sample vectors for basic message call delivery

Introduction
The following are sample vectors for basic message call delivery that you can use to provide different coverage for supporting message calls.

- Vector sample 1
- Vector sample 2

About vector sample 1
Vector sample 1 is for a call center that has scheduled business hours (hours of operation: 8 a.m.–5 p.m. Monday through Friday). Vector sample 1 consists of two vectors: Vector 1 (VDN 1000) and Vector 2 (VDN 1001).

The following items provide information about sample vector 1 and also provide the following design tips:

- Vector design should limit message call queuing to eight hours. When the queue time approaches eight hours, the vector will automatically disconnect the message call.

- Time-of-day checks are done periodically so that message calls in queue during non-business hours will be automatically disconnected.

- If a message call is disconnected either by an agent hang up or by a vector disconnect, *Message Care* will wait 15 minutes and then retry the message call.

- Vectors are limited to 32 steps.

- You may want to limit the number of message calls queued in a specific vector based on the staffing profiles of agents trained to support that mailbox. Your 200 message extension resources need to be shared across all mail boxes in order to prevent starving (starving occurs when a select number of mail boxes continuously receive message calls, leaving other mailboxes with no resources from which calls may be launched). If there are three agents (agent 1, 2, and 3), each agent could have a specific skill (such as handling catalog requests, problems, or technical support). Depending on the percentage of message calls that go to each skilled agent, each mailbox should be set up to limit message call queues accordingly.

Vector 1 (VDN 1000)

In the following sample, *Message Care* launches the message call to VDN 1000 that directs message calls to Vector 1. *Message Care* is monitoring VDN 1000.

1. Go to step 6 if time of day is all 17:00 to all 8:00 (check if outside normal business hours)

2. Go to step 6 if time of day is Friday 17:00 to Monday 8:00 (check if outside normal business hours)

3. Go to step 6 if message calls-queued in skill 1 > 49 (limits the number of message calls that can queue).

4. Queue to skill 1 pri m

5. Wait time 899 seconds hearing silence (first of a series of 14:59 (mm:ss) wait steps)

6. Disconnect after announcement none (automatically disconnects message call if outside business hours or if queue limit reached)

7. Stop

Repeat as needed.

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Sample vectors for retrieve and suspend

Overview　　When an agent suspends a message call, the processing of that message is postponed for a specified period of time. When the suspension timer expires or if a response is received linked to the original consumer's request, the *Message Care* software will initiate a call to return the message to the agent. The number called is the Suspend VDN and may be administered per mailbox.

The Retrieve option is used when a agents want to resume processing of an original message call. The *Message Care* software always attempts to deliver a retrieved message to the agent who used the Retrieve option. A message can be retrieved if it is either in the launched, suspended, blocked, and failed status states, but cannot be retrieved in the closed or active states.

When the *Message Care* software launches either a retrieved or suspended call, it is prepared to support an adjunct route request if asked for in the vector processing. When prompted for an adjunct route, the *Message Care* software will respond with an agent ID of either the agent retrieving the message or the agent who suspended the message.

If another CTI application is monitoring the VDNs used by the *Message Care* software, this other CTI application must not register for adjunct route requests on these VDNs.

To achieve the full benefits of the *Message Care* software, appropriate coverage paths and criteria must be assigned to your agents to insure that returning retrieved and suspended messages are delivered properly.

To better understand the recommendations for coverage criteria, here are the assumptions made relative to the handling of message calls:

- Retrieved messages should not go to coverage but should remain queued for the agent who retrieved them.

  This assumes that the agent who initiated the retrieval request wants to resume processing the message. Between the retrieve request and the actual delivery of the message, the *DEFINITY* ECS may have delivered another ACD call to the agent. The retrieved message should sit in the agent's queue waiting until service to this other call is completed.

  If you implement such a message call handling strategy, you must instruct your agents to not log out of the *DEFINITY* ECS while queues are queued for them.

- Suspended messages should cover to a backup skill group if the suspending agent is not currently logged into the *DEFINITY* ECS.

  One example of the above would be when it is necessary to deliver the suspended message and the agent who suspended a message is out sick or on vacation. To insure that this message is delivered, the coverage criteria for your agents should route such suspended message calls to a backup skills group. This combination of *Message Care* software and *DEFINITY* ECS coverage insures that your consumers are serviced.

- Suspended messages should not go to coverage but should remain queued for the suspending agent if that agent is logged in.

- Different coverage treatment can be given to live callers using a combination of the sample coverage vectors provided here and taking advantage of the *DEFINITY* ECS's ability to apply different coverage criteria for internal and external calls.

  The following are recommended coverage options for internal calls:

  – Active/Busy - set to Yes

  – No Answer - set to No

  – Coverage Path - one of the sample coverage vectors listed

With these coverage settings, internal calls such as Message Care calls will immediately go to coverage if the agent is not logged in. If the agent is logged in, an internal call will remain queued for the direct agent until answered by the agent. This allows retrieved and suspended calls to wait until the agent is available.

With this proposed implementation, internal live callers will not be directed to coverage while an agent is logged in. If such coverage is required, the No Answer ring cycles should be set to a level tolerable to your callers, but high enough to allow an agent to receive a returning suspended or retrieved message.

The following sample vectors are provided:

- [Sample 1—suspend/retrieve vector: page 2-34](#)

- [Sample 2—agent coverage: page 2-35](#)

- [Sample 3—VDN using vector coverage routing table: page 2-35](#)

Based on your business needs, you may also want to provide one coverage path for message calls and a different coverage path for live callers (voice mail). Sample vectors 2 and 3 illustrate how such coverage may be accomplished.

**Sample 1—suspend/
retrieve vector**

In this vector, message calls are routed using an adjunct route step where *Message Care* will return the agent ID. If the agent is not logged in, *DEFINITY* ECS will rotate the call following the agent's assigned coverage path. In sample 1, *Message Care* launches the message call to VDN 2000 which directs message calls to Vector 200. *Message Care* is monitoring VDN 2000.

Step 3 of vector 200 consists of link extension 9999. Link extension 9999 is the extension of the ASAI link for which the *CentreVu* Computer Telephony server is located. You must set the COR on the adjuct link (in vector 2000, this is link 9999) and phantom extension to enable direct agent calling.

Vector 200 (VDN 2000)

Vector 200 begins:

1. Go to step 6 if time of day is all 17:00 to all 8:00 (check for business hours)

2. Go to step 6 if time of day is Friday 17:00 to Monday 8:00 (check for business hours)

3. Adjunct route on link extension 9999 (request to Message Care for agent login ID)

4. Wait time 4 seconds hearing silence

5. Route to number 2001 if unconditional (default treatment)

6. Disconnect after announcement none (automatically disconnects message call if outside business hours)

Vector 201 (VDN 2001)

VDN 2001/Vector 201 provides coverage treatment for the message call. Vector 201 would queue the message call to one of the *Message Care* skills. It would look similar to the sample vectors provided in the section in this chapter.

Sample 2—agent coverage

In this vector, vector processing diverts traditional calls to coverage appropriate for live calls, such as voice mail, and queues the *Message Care* message calls to the agent's backup skill.

In this example, traditional voice calls are diverted using the call prompting feature. This feature will prompt the caller to press 1 if they want to leave a voice mail; if 1 is pressed, the call is directed to the voice mail. If the caller does not press 1, the message call will be queued.

In this example, rotary calls will not be able to leave voice mail and thus will be redirected into the *Message Care* queue for the first available agent. Rotary callers will not be directed to the live call queue. Also, an interdigit timeout would occur before the rotary callers and the *Message Care* message calls were queued to the *Message Care* skill.

Vector 300 (VDN 3000)

In this sample, the coverage vector supports both message calls and live calls by prompting to detect a live call.

1. Wait time 0 seconds hearing ringback

2. Collect 1 digit after announcement 3000 ('press 1 if you would like to leave a voice mail for the agent)

3. Route to number 5000 if digit = 1 (redirects callers who want to leave voice mail)

4. Route to 1000 (basic skill VDN which checks queue time)

Sample 3—VDN using vector coverage routing table

Sample 3 is similar to Sample 2 except that the VDN used for the agent's coverage path or for Redirection on No Answer (RONA) uses the Vector Routing Table capabilities to distinguish between *Message Care* direct agent calls and traditional direct agent calls. Sample 3 provides better treatment to live callers than the previous example because it enables both rotary and touch-tone callers to leave a message and it avoids the interdigit timeout.

This vector will identify *Message Care* message calls using Automatic Number Identification (ANI) routing along with vector routing tables. The message call extensions used to initiate *Message Care* message calls would be placed in one or more vector routing tables. The number of vector routing tables needed depends upon how many message call extensions have been assigned for use by *Message Care*.

In the example below, the message call extensions for *Message Care* have been administered in Vector Routing Table 1.

1. Go to step 3 if ani in table 1 (determines whether the call is a message call)

2. Route to number 5000 if unconditional (diverts traditional calls for alternative treatment)

3. Route to 1000 (queues message calls to the *Message Care* skill)

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What mailboxes do you need?

About mailboxes   A single mailbox can route messages to a maximum of 11 VDNs, depending on the keywords it finds in the message subject. This is especially useful for messages generated from a form on your Web site. For instance, the form can include a field where the consumer chooses the appropriate keyword.

Planning your *Message Care* mailboxes

In planning your mailboxes, consider the following:

• The messages that you want to group into a mailbox

• The keywords that you want to use to send each message to the appropriate VDN

• The auto-acknowledgment message that you want so that the *Message Care* software can send it as soon as it detects each message. For each mailbox, you can specify a different text file to be the body of the auto-acknowledgment. You can also administer a mailbox to not send auto-acknowledgments at all.

Mailboxes that receive faxes should not have an auto-acknowledgment file, since they do not provide an email return address which can reach the sender.

For other mailboxes, consider:

• Whether you want to send auto-acknowledgments

• What text you want in the auto-acknowledgments you choose to send

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Considerations for specifying auto-acknowledgment text

Specifying the auto-acknowledgment text

If acknowledgments are enabled for a supported mailbox, you are required to specify an American Standard Code for Information Interchange (ASCII) text file to be sent as the text component of the message. *Message Care* supports only a single text file component per mailbox and does not provide a default text message. Auto-acknowledgment text must reside on the same server as the *Message Care* software application.

The auto-acknowledgment files must be stored on a file system accessible from the NT server running *Message Care*.

Because a consumer may reply to an agent's response, you must properly administer the return email address. We recommend that you test the auto-acknowledgment, including a consumer response to the received acknowledgment.

Most mail servers support the POP3 protocol. Some servers, such as *Intuity AUDIX*, require an add-on support package to provide POP3 access (*Intuity AUDIX* must be R4.3 with the add-on *Intuity* Internet Messaging package).

The *Message Care* software provides a field tool to test a call center's server for compliance with the requirements of the POP3 and SMTP protocols.

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Location of the *Message Care* database

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Overview   If the drive on which your *Message Care* software resides is reaching its capacity, then you can move the *Message Care* database to a different drive.

Move the *Message Care* database   To move the *Message Care* database to a different drive, do the following:

....

1   Verify that the Mail Manager service and the Work Flow Manager service is not running.

....

2   Ensure that the destination drive has as least 1.5GB of free space available. A drive with no files installed is preferable.

....

3   Create a folder that will contain the *Message Care* database.

Copy the following database files from the installed location *C:\Program Files\MessageCare\database* to the folder on the destination drive:

- EmptyMsgcare.mdb
- EmptyMcAdmin.mdb
- McAdmin.mdb
- MessageCare.mdb
- ArchiveMessageCare.mdb

4   Reconfigure the database locations in ODBC data source administration.

To do this, do the following:

1.   From the Control Panel, click on the ODBC icon.

2.   Select the System DSN tab.

3.   From the System DSN tab, select the Configure... button.

Choose the correct database on the destination drive for the following:

• Message Care Admin

• Message Care Archive

• Message Care Messages

5   Rename the files in *C:\Program Files\MessageCare\database* and test *Message Care* operations. After you have successfully tested *Message Care* operations, delete the renamed files in *C:\Program Files\MessageCare\database*.

E ND OF STEPS

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3 Install and uninstall *CentreVu* Internet Solution software

Overview

Purpose

The purpose of this information is to describe, at a high-level, the procedures for installing and uninstalling *CentreVu* Internet Solution software.

The following *CentreVu* Internet Solution software is installed by Lucent Technologies personnel:

- Internet Call Manager and Computer Telephony Integration software
- *Message Care* software

The following software must also be installed but is not part of the *CentreVu* Internet Solution installation:

- *CentreVu* Compute- Telephony software

References

In addition to the installation procedures that follow, you should check the *readme.txt* file that is delivered with the software. The *readme.txt* file includes late-breaking changes to and news about the software.

Contents This section contains the following:

Audience This information is intended for installers, system administrators, or any other persons involved in installing software for the *CentreVu* Internet Solution. This includes Lucent Technologies' Technical Support Organizations.

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Install JRun

Before you begin
The information contained in the install instructions describes only those procedures that require you to input information or make choices.

Install instructions

1 Stop the IIS Web service.

2 Download the JRun Servlet Engine from the following URL: *http:// www.livesoftware.com/products.jrun*

3 The Setup program prompts you through the installation process. Follow the instructions on the screen.

You will need to select the following options:

- Destination location—select the default location. (This will make the ICM/CTI installations easier because the ICM/CTI setup uses the same default location.)

- Configure software—in this step, you are configuring JRun to work with the Web server. For the majority of questions asked during the configuration, you will select the defaults.

  The following are exceptions to selecting defaults:

  – Select connector to install—click on IIS/PWS 3.0/4.0

  – IIS Scripts directory—browse to, and then select the *InetPubs/scripts* where IIS is installed.

  – Select Finish—do not perform another configuration.

4 Reboot—you can reboot the system at this point or you can reboot your system after you have installed all *CentreVu*Internet Solution software.

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Install the ICM/CTI software

Before you begin   The information contained in the install instructions describes only those procedures that require you to input information or make choices.

> **Important!**   Before you begin the ICM/CTI install, do the following:
>
> • Stop the IIS Web service.
>
> • Make sure JRun is already installed.
>
> • Uninstall any prior versions of ICM/CTI. See .

Install instructions

1   Insert the ICM/CTI R3.0 CD-ROM.

2   From the ICM/CTI folder, select *setup.exe*.

The Setup program prompts you through the installation process. Follow the instructions on the screen.

You will need to select the following options:

• Setup Type—you are given two options: Custom and Typical. Custom enables you to install ICM and CTI separately (for example, if you wanted to install the ICM software on a different server than the CTI software then you would choose Custom). Typical installs both the ICM and CTI software on one server.

• Destination location—select location.

• Select Program Folder—you can select the default or create a new program folder.

• Previous Install—if you are upgrading the ICM/CTI software, provide the location of your previous install. If you provide an incorrect location, you will have to readminister your software.

• Configure JRun—select Yes. In this step, you are configuring the ICM to work with JRun.

• Destination Location of JRun—provide folder where JRun is installed.

- Install JRE—select Yes. (You need to install JRE for a new install and for an upgrade.) Also, select I18N if you are using multiple languages for the *CentreVu* Internet Solution.

- Reboot—you can reboot the system at this point or you can reboot your system after you have installed all *CentreVu* Internet Solution software.

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3 Copy the *license.dat* file to the ICM installation directory. The *license.dat* file is created by Lucent Technologies and installed on the ICM server.

If you are going to install the *Message Care* software on a different server than the ICM/CTI software, then you must copy the *license.dat* files to the same directory on both servers.

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4 When you are finished installing the ICM/CTI software, specific parameters must be administered. When administering the ICM/CTI software as part of an upgrade, take note of the new parameters (for example, **License Limit URL**). See and .

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.... Message Care Solution Guide for the CentreVu Internet Solution, 585-...

Install *Message Care* software

Overview   Ensure that you have the appropriate system prerequisites. See <u>What do you need to make Message Care work?: page 1-5</u> for *Message Care* software and hardware requirements.

Recommendations for the installation of the *Message Care* software are listed below:

•   Configure the *Message Care* server with a virtual memory paging file initial size that is equal to the physical memory in the PC + 250 MB. For example, if the PC has 128 MB of memory the minimum swap should be configured with a 378-MB initial paging file size.

The virtual memory does not have to be on the same disk as the database. If the machine has two physical drives, it is suggested that the virtual memory and the database be placed on two different physical drives.

•   At least 1.25 GB of free disk space where the *Message Care* database is installed.

The server must have an NTFile System (NTFS). To see what type of file system your server is using, do the following:

1.   Right click on the C: drive (on which Winnt is running), select Properties, and then select the General tab.

2.   If the file system type is FAT, you can change it to NTFS by using the convert utility if your PC is an x86 (not RISC) NT system. To change to an NTFS, open an MS-DOS command window and type at the cursor.

The ICM software must be put on the *Message Care* server even if the ICM will run from a different server. This is because *Message Care* utilizes ICM library files. If this is the case, the ICM service must be stopped on the *Message Care* server, and the Startup Type of the ICM service must be changed from Automatic to Manual.

Before you begin   Before you install the *Message Care* software, do the following:

•   Stop the IIS Web service.

•   Ensure that ODBC drivers are installed.

Installation instructions for the *Message Care* software

....

1 Insert the *Message Care* R1.2 CD-ROM.

> **Important!** Do not cancel an installation of *Message Care* while it is in progress. If necessary, wait until *Message Care* is installed and then uninstall it.

....

2 From the *Message Care* folder, select *setup.exe*.

The Setup program prompts you through the installation process. Follow the instructions on the screen.

During the installation, you will need to select the following options:

- *Message Care* destination folder—accept the default Destination Folder for the *Message Care* files.

- Perl destination location—accept the default Destination Location for Perl.

- JRE installation—if JRE has been previously installed during the ICM/CTI installation, do not accept the option to install it.

- Perl and/or PerlScript—after the *Message Care* software has been installed, accept the option to install Perl and/or PerlScript if they are not already installed on your server.

- ActivePerl—for ActivePerl, use the default Destination Directory for the install.

....

3 Restart the IIS Web service.

....

4 When you finished the installation, you must configure and administer the software. For information on how to configure the *Message Care* software, see . For information on how to administer the *Message Care* software, see .

....

5 Reboot the *Message Care* server.

E ND OF STEPS
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Starting *Message Care*

Several processes need to be run for the entire *Message Care* application to work. All of these processes run as NT Services. The CTI, ICM, and Work Flow Management (WFM) services all have a user interface available through the Start menu as described in the section. The following processes must be started as NT Services:

- CTI and ICM processes—when started successfully, a "CTI is ready" message will display in both user interface windows.

- WFM—the WFM user interface should show Listening for connections on port 8110, 8111 and 8112. Also, if there were unprocessed messages in the database, the WFM should attempt to launch message calls for them at this time.

- Mail Manager—the Mail Manager service does not have a user interface. The WFM output window should show connections on ports 8110 and 8112 when the Mail Manager is connected to the WFM.

  Each successfully retrieved message should also generate a call request to the WFM which will try and set up a call. If polling fails, there may be a problem with the connection to the POP3 server, or the mailbox name and password administered. Check Mailbox administration.

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Configure the *Message Care* software

Overview The following procedures provide configuration information for your
Message Care software:

Configuration procedures

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1 Move the *msgcare.ini* from the *C:\Program Files\Message Care\temp* to
the *Windows* directory (typically *c:\Winnt*).

....

2 If ICM is not installed on the same server as *Message Care*, change the
WorkFlowMan.ICMAddr parameter of the *parms.txt* file to the IP
address of the ICM server. *Message Care* services must be restarted after
changing this parameter value.

....

3 Set your browser's caching options to refresh each time you visit a page.
If your browser caches pages, a view of a page may not reflect the most
recent updates.

....

4 To use the *CentreVu* Internet Solution administration Web pages, do the
following:

1. If *Message Care* and ICM/CTI are co-resident (running on the
same server), then under the directory where ICM is installed
(typically - *C:\itg\admin*) create a new folder called *msgcare*.

2. Move the *C:\Program
Files\MessageCare\temp\MCAdministration.htm* file to folder you
just created (*C:\itg\admin\msgcare*).

....

5 If *Message Care* and ICM/CTI are not co-resident (not running on the same server), do the following:

1. In the *C:\itg\admin* folder on the ICM server, create a folder called *msgcare*.

2. From the *Message Care* server, copy the *C:\Program Files\MessageCare\temp\MCAdministration.htm* file to the *C:\itg\admin\msgcare* folder you just created on the ICM server.

3. Edit the *C:\itg\admin\msgcare\MCAdministration.htm* file on the ICM server to link to the *Message Care* Server.

   Edit the second line of the file— **`<form name="formal" action="/mcadmin/MsgcareAdmin.asp" method="post">`**) with the following line— **`<form name="formal" action="http://<your_Message Care_server_domain>/mcadmin/MsgcareAdmin.asp" method="post">`**

4. Edit the *C:\Program File\MessageCare\www\scripts\mc_agent.html* located on the *Message Care* server.

   Edit the 15th line of the file— **`<form action="/servlet/WT/ agentsu" method="post">`** with the following line— **`<form action="http://<ICM_server_domain>/servlet/WT/ agentsu">`**

   Edit the 27th line of the file— **`<input type=hidden name="browserWinURL" value="/mcscript/ mc_welcome.html">`** with the following line— **`<input type=hidden name="browserWinURL" value="http:// <MC_server_domain>/mcscript/mc_welcome.html">`**

5. Edit the *C:\Program Files\MessageCare\www\admin\MsgCareAdmin.asp* located on the *Message Care* server.

   Edit the link to the System Administration page— **`<A HREF="/ admin">System Administration Menu </A>`** to the following line— **`<A HREF="http:// <ICM_server_domain>/admin">System Administration Menu </A>`**

....

....

6   Set up the Spell Checker by editing the following file: *C:\Program
Files\MessageCare\www\scripts\spell.inc*

Edit the SpellServer and the SpellPort entries.

The SpellServer entry identifies the IP address of the Spell Checks
server software. The SpellPort entry identifies the listening port of the
spell server. This port must correspond to the port used in *C:\Program
Files\MessageCare\bin\SpellServer\spellserver.bat* entries.

E ND OF STEPS
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*...........................Install and uninstall CentreVu Internet Solution
software*

Message Care Solution Guide for the CentreVu Internet Solution, 585-215-...........................

Upgrade the *Message Care* software

Before you begin Ensure that you have the appropriate system prerequisites. See What do you need to make Message Care work?: page 1-5 for *Message Care* software and hardware requirements. You do not have to reinstall the other software required for *Message Care* unless you need to upgrade to current versions.

Upgrade the *Message Care* software To upgrade the *Message Care* software, do the following:

1 Stop the IIS Web service.

2 Shut down *Message Care* using the graceful shutdown procedure, and then Stop the Lucent Spell Server from the NT Services window. For graceful shutdown procedures, see Perform a graceful shutdown: page 9-14.

3 We recommend that you copy the entire *Message Care* installation directory (default *C:\Program Files\MessageCare*) to an unrelated folder before upgrading.

If you choose not to copy the entire *Message Care* installation directory, then you should at least copy the following files:

- The *C:\Program Files\MessageCare\database* folder— to retain administration data, message records, and archived message records. Failure to backup these files will result in loss of these databases during the installation process.

- The *parms.txt*, *bin\SpellServer\dict*, all **.log* files, **.bak files*, *www\scripts\spell.inc*, and **.err* files under the *MessageCare* folder.

- The *Winnt\msgcare.ini* file

4 Uninstall the previous version of the *Message Care* software by using Add/Remove Programs.

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5 Follow the *Message Care* installation procedures described in .

....

6 Move the following files you copied in Step 3 back into the correct folders:

- Move the *database* file to the *C:\Program Files\MessageCare* folder

- Move the *spell.inc* and the *parms.txt* file to the *C:\Program Files\MessageCare\www\scripts* folder

- Move the *msgcare.ini* file from the *temp* directory to the *Winnt* directory

Install the *CentreVu* Computer-Telephony for *Windows NT* software

Introduction   For information on installing the *CentreVu* Computer-Telephony for *Windows NT* software, see the *CentreVu* Computer-Telephony documentation you received with the software.

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Uninstall the ICM/CTI software

Procedure To uninstall the ICM/CTI, do the following:

1 Before you uninstall the ICM/CTI software, you must stop the Lucent Internet Call Manager service and the Lucent Internet CTI Manager service.

To stop the ICM and CTI services, do the following:

1. From the Control Panel, select Services.
2. Click on the Lucent Internet Call Manager service, and then click on Stop.
3. Click on the Lucent Internet CTI Manager service, and then click on Stop.

2 From the Control Panel, select Add/Remove Programs.

3 Select Lucent ICM_CTI program (default name), and then select the Add/Remove... button.

4 You may be asked if you want to remove shared files. Say Yes to all.

E N D O F S T E P S

Uninstall the *Message Care* software

Before you begin   Do the following prior to uninstalling the *Message Care* software:

• Stop the IIS Web service.

• Shutdown *Message Care*. To shut down *Message Care*, use the graceful shutdown procedures located in the section.

• Stop the Lucent Spell server from the NT services window.

Uninstall the *Message Care* software   To uninstall the *Message Care* software, do the following:

1   From the Control Panel, select Add/Remove Programs.

2   Select Lucent MessageCare program (default name), and then select the Add/Remove... button.

3   You may be asked if you want to remove shared files. Say Yes to all.

E ND   OF   STEPS

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4   Administration

Overview

Purpose   The purpose of this section is to inform you of the administration required for the *CentreVu* Internet Solution. After you have installed and connected all necessary components, you must administer your *CentreVu* Internet Solution so that you can use all of its features and functions.

Audience   This section is intended for system administrators, support personnel, and anyone who wants an overview of administering the *CentreVu* Internet Solution.

Contents   The following information is contained in this chapter:

- Administering the CentreVu Internet Solution software: page 4-2
- Administering the DEFINITY ECS: page 4-20
- Administering the CentreVu Computer-Telephony for Windows NT software: page 4-25

Administering the *CentreVu* Internet Solution software

Overview

Purpose   This section explains what must be administered for the *CentreVu* Internet Solutions software.

Audience   This section is intended for system administrators and support personnel.

Contents   The following administration items are provided:

- Administration prerequisites: page 4-3

- Administer the Message Care software: page 4-6

- Administer the CTI: page 4-15

- Administer common parameters: page 4-17

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Administration prerequisites

What are the prerequisites?

Before you begin administration for the *CentreVu* Internet Solution, ensure the following:

- The ICM server and *CentreVu* Computer-Telephony server must be installed, connected, and functioning on the LAN.
- The ICM application must be running on the ICM server.
- A Web browser must be available for administrative access.
- IP addresses for the ICM server and *CentreVu* Computer-Telephony server must be known.

Where do I administer my *CentreVu* Internet Solution software?

All *CentreVu* Internet Solution software is administered through a main administration Web page. The administration Web page may be protected (see <u>Security: page 2-9</u>), requiring a login ID and password. If the administration Web page is protected and you do not know your login ID or password, contact your system administrator.

To access the main administration page, enter the page location in the browser window as follows:

http://<ICM_server_name>/admin

Illustration   The following is an example of the Lucent CentreVu Internet Solutions System Administration Menu.
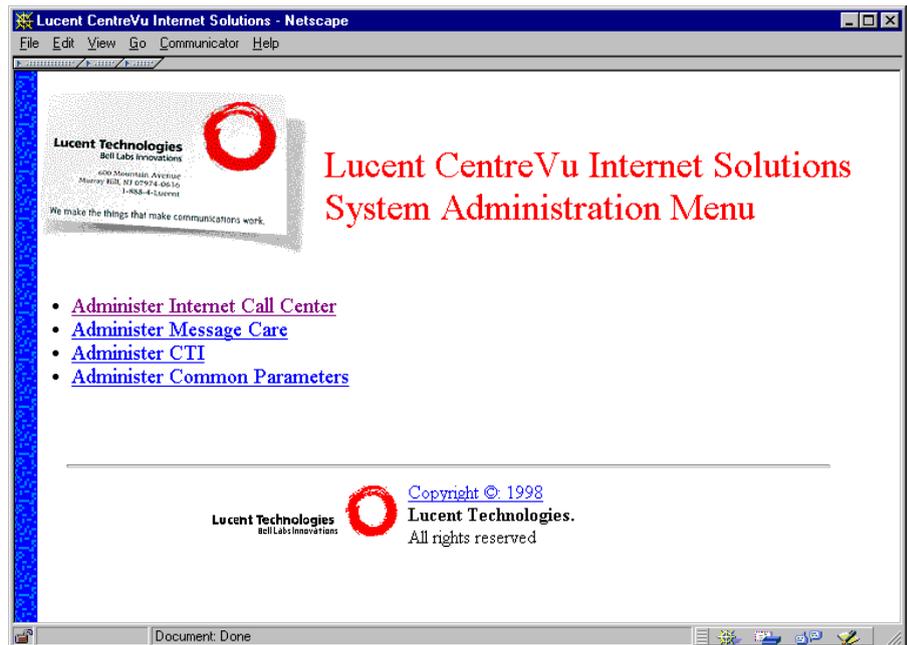
This page shows the available administration categories. Each category links to another page for administration and is described in the following sections. Click on the text link of a category to begin the administration.

If you do not have the Internet Call Center offer installed, then the *Administer Internet Call Center* link will not be available.

Characteristics of the administration Web pages   Most of the administration Web pages have similar characteristics. These characteristics are as follows:

• All administration web pages provide Help information for. To access general Help for each administration Web page, click on the Help button.

    You can edit fields by doing the following:

    1. Highlight the portion of the field you want to change.

    2. Enter the new information.

    3. Select the Save button to store the new values.

• You can confirm that a URL in the ICC/Message Care Common Administration Web page is correct and accessible by clicking on the Verify link. For example, clicking on the Verify link to the right of the URL should bring up the associated page in a separate browser window.

- Each Web page provides buttons to access Help, Refresh, and Save.

  The buttons and their associated actions are as follows

  – Help—links to Help associated with the page.

    All Help selections open a separate browser window so that Help can be viewed simultaneously with the page being administered. Help browser windows can be closed at any time without affecting the administration process.

  – Save—activates the new administration changes made on this screen. Each specific section identifies the action or necessary steps taken to ensure that the administrative changes are in effect.

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Administer the *Message Care* software

Overview
Web-based customer administration utilities provided by the *Message Care* software allow a system administrator to do the following:

- Define the set of mailboxes to be monitored.

- Define the call routing number or rules to associate a number for each mailbox.

- Specify the group of Administered WithOut Hardware (AWOH) extensions available for call origination.

- Specify the Web PagePop per mailbox.

- Customize the agent processing tools per mailbox.

- Administer the set of canned message responses used by agents.

- Specify the file location of the message storage system.

Message Care Administration Web page
The Administer Message Care link (from the Internet Call Center/ Message Care System Administration Menu) jumps to the Message Care Administration Web page which allows you to administer parameters specific to the *Message Care* software. From the Message Care Administration Web page, you can administer system options and add mailboxes. The Message Care Administration Web page also provides you with a list of mailboxes already administered.

Illustration

An illustration of the Message Care Administration Web page follows:
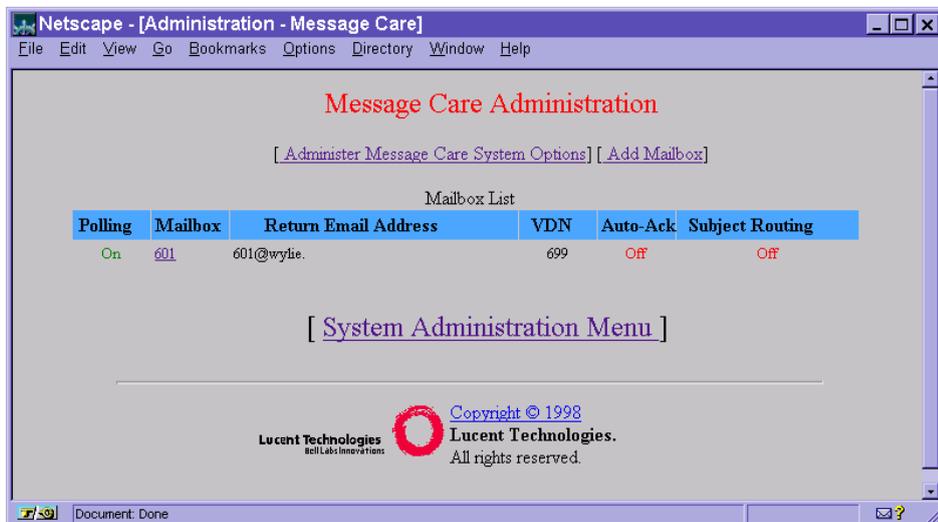
Parameter description for the Message Care Administration Web page

This is the form used to view mailboxes currently administered. Click on a mailbox name to edit the mailbox. Following is a description of each column:

Parameter	Description
Polling	Indicates whether the mailbox has been enabled for polling.
Mailbox	Indicates the specific name of the mailbox.
Return Email Address	The message email address seen by the consumer in an auto-acknowledgment and the default "from" address used in the Reply and Forward agent Web pages for this mailbox.
VDN	The Vector Directory Number (VDN) called when a message is received in this mailbox.
Auto-Ack	Indicates whether the mailbox has been enabled for an auto-acknowledgment message to be sent.
Subject Routing	Indicates whether the mailbox has been enabled for subject-based routing.

Message Care System Options Web page

The Message Care System Options administration Web page allows you to add or modify system-wide administration options. For example, Site Identifier, SMTP server, and so forth.

Illustration

An illustration of the Message Care System Options Web page follows:

Parameter description for the Message Care System Options Web page

The following parameters can be administered on the Message Care System Options page (not all parameters are required):

Parameter	Description
Site Identifier (required field)	A number tag (numeric suffix) assigned by a customer to be included in all assigned message tracking numbers. Site identifiers are used to distinguish messages processed at different centers using multiple *Message Care* applications. This suffix is fixed at four digits. The default suffix is 1000. Even though this initial release of the *Message Care* software supports only a single site, you may forward messages between sites using your email networks.
Max Simultaneous Message Calls (required field)	Indicates the number of calls.

Parameter	Description
SMTP Server (required field)	A single customer-administered server used for all outbound mail, identified by a server identification, either in the form of an Internet Protocol (IP) address or a host name. *Message Care* requires that the Simple Mail Transfer Protocol (SMTP) server listen on port 25.
Retrieve VDN Number (required field)	The number called when an agent requests that a message be retrieved and a call is launched to the agent. When an agent retrieves a message, the *Message Care* software supports a vector route request step identifying the agent who requested the message.
	You need to ensure that the VDN that you administer in *Message Care* has also been administered on the *CentreVu* Computer-Telephony server. To synchronize the *CentreVu* Computer-Telephony server software and the *Message Care* software, they both must be restarted.
Alarm Email Address (required field)	The specified email address to which an email alarm will be sent through the SMTP server in response to a *Message Care* alarm condition; it is recommended that this be a group mailing list of your support team.
Junk Mail Screening	A list of up to 20 email address entries of message originators from which you wish to block messages, thereby allowing you to screen incoming mail. If messages are received from this set of originators, the *Message Care* software marks the message status as blocked. Blocked messages will not receive an auto-acknowledgment nor will they be delivered to agents. Wild cards are supported.
	The Junk Mail Screening option must either be turned on or off for each mailbox. To turn this option on or off for each mailbox, go to the Mailbox Administration Web page.
Subject Screening to Block Auto Acknowledgment	Up to ten text strings to search for in the message text. If a match is found, no auto-acknowledgment will be sent for the message. Note that strings are searched in order of ranking and that partial matches are valid. For example, if the first search string is "DEFINITY" and the second search is "DEFINITY ECS," all cases of DEFINITY ECS will match on the first search string, since DEFINITY is included in the text. It is important to be explicit and to pay attention to partial matches when administering and ranking search strings. Examples of where this is useful are corporate broadcast messages or undeliverable messages.

Mailbox Administration Web page

Important!   *Do not* change the Friendly Name of a mailbox after the mailbox has been administered and in use.

Mailbox parameters include information relative to a specific mailbox. This form administers the rules for routing messages and the tools for an agent to process messages.

For information about setting options for a mailbox that receives MIME type *application/ms-tnef* messages, see <u>Attachment is lost or cannot be opened: page 10-18</u>.

Illustration

An illustration of the Mailbox Administration Web page follows:

Parameter description for the Mailbox Administration Web page

The following parameters can be administered on the Mailbox Administration Web page:

Parameter	Description
Enable Polling	An option which can be set to Yes or No to allow or prevent the mailbox from being polled. This allows a mailbox to be pre-administered in anticipation of a new campaign.
Friendly Mailbox Name (required field)	The label of a mailbox used by the *Message Care* software for report and search operations. Each mailbox name must be unique.
Mailbox Server (required field)	The IP address or host name of the mail server where the mailbox resides.
Login Name (required field)	The login ID of the mailbox to be monitored by the *Message Care* software.
Login Password (required field)	The login password of the mailbox to be monitored by the *Message Care* software.
	If your system automatically requires new passwords, you must update the value used by the *Message Care* software.
Return Email Address (required field)	The default email address seen by the consumer in an auto-acknowledgment and agent reply (from the address in the Reply and Forward agent Web pages).
Message Display URL (required field)	The URL used to deliver the message contents to an agent in order to view a message and compose a reply. A default value is provided for the Message Display URL in which you can modify it to include your *Message Care* server name.
Message View URL (required field)	The URL used to allow an agent to view a message without being able to make any changes.
	A default value is provided for the Message View URL in which you can modify it to include your *Message Care* server name.
Suspend VDN (required field)	The VDN called when the timer expires or a related message is received while a message is suspended; the *Message Care* software is designed to support an adjunct route step in this VDN. The *Message Care* software detects the expiration of a suspended timer within minutes of expiration.
	You need to ensure that the VDN that you administer in *Message Care* has also been administered on the *CentreVu* Computer-Telephony server. To synchronize the *CentreVu* Computer-Telephony server software and the *Message Care* software, they both must be restarted.
	It is important to consider how to cover a call when an agent is not logged in; please refer to Vectors: page 2-26.

Parameter	Description
Auto Acknowledgment File	The full path name of the file to be used for the ASCII file containing the text of the acknowledgment. If no auto-acknowledgment file location is administered, auto- acknowledgments are not sent from this mailbox.
Enable Junk Mail Screening	An option which can be set to Yes or No to block certain incoming messages based on the originating address. If set to Yes, messages administered in the System Options "Junk Mail Screening" will be blocked.
Default VDN Number (required field)	This is the VDN called when a message is launched from this mailbox. This is the value that will be tracked in Call Management System (CMS) statistics and should identify the required skill set of the agents processing the messages received in this mailbox. This value is overridden by matching values in the Subject Based Call Routing administration, if used.
	If the Default VDN has Route To Digits, then any VDN selected through subject based call routing will also use the same set of Route To Digits. If the Default VDN selected does not use adjunct routing, then the digits are ignored.
Route To Digits	A fixed value to pass to the *DEFINITY* ECS as a route to step during vector processing; this can be used to specify a specific agent.
Rank	The Rank field is used in several of the tables to impose an ordering on the entries. For example, when the agent shows the Closure Codes, it might be efficient to have certain entries at the top. The administration screens will ensure that the values in this field are unique and ordered (for example, for ten entries, they must have the values 1 through 10).

Parameter	Description
Subject Based Call Routing	Up to ten text strings (case sensitive) to search for in the message subject. If a match is found, the corresponding VDN is used when placing the call in the *DEFINITY* ECS. Note that strings are searched in order of ranking, and that partial matches are valid. For example, if the first search string is "DEFINITY" and the second search string is "DEFINITY ECS," all cases of "DEFINITY ECS" will match on the first search string, since DEFINITY is included in the text. It is important to be explicit and to pay attention to partial matches when administering and ranking search strings.
	To route a message, the *Message Care* software initiates the call routing processes on the *DEFINITY* ECS by launching a message call to a VDN. The *DEFINITY* ECS performs the real call routing processing, looking at the available pool of agents and workload at the center.
	Each *Message Care* monitored mailbox has a defined set of rules for selecting the VDN associated with a message. You can administer a mailbox so that all received messages are directed to the same number. Alternatively, you can request that the *Message Care* software select a number based on the contents of the message subject field by administering subject-based call routing.
Canned Responses	A list of any ASCII files ("canned answers" to frequently-asked questions) that agents can use in replying to the consumer; for each file, include its location and the label that the agent uses to select it.
	If a canned response file is improperly administered, that is, cannot be found when an agent selects it, an error message will be written to the text composition area of the Agent Control Window.
	Canned response files must be located in the compose applet directory (the default is, *C:\Program Files\MessageCare\WWW\applets\compose*). You may also create a subdirectory of the compose applet directory for storing canned responses.
Suspension Codes (required field)	A list of reason codes for agents to assign when suspending a message.
	If you do not administer at least one Suspension Code, then the agent will not be able to suspend a message.
Suspension Time (required field)	A set of allowable suspension times, in minutes, in which calls can be suspended; agents can choose from these values when suspending a call from this mailbox.
Closure Codes (required field)	A list of reason codes for agents to assign when closing a message; the set of administered closure codes are used to generate reports.
	If you do not administer at least one Closure Code, then the agent will not be able to close a message.

Parameter	Description
SME List	A list of the Subject Matter Experts (SMEs) and their email addresses; this list should contain the email addresses of members of your company who can receive email from agents requesting assistance in the processing of messages.
File Attachments	A list of the call center's file attachments (agents may send file attachments when replying to a consumer) and their file locations (label and path). File types must be administered for all call center file attachments. This association is used in creating the Multipurpose Internet Mail Extensions (MIME) message sent to the consumer through the SMTP server. MIME is a common method for transmitting non-text files through Internet email, which was originally designed for ASCII text. MIME encodes the files using one of two encoding methods and decodes it back to its original format at the receiving end. A MIME header is added to the file which includes the type of data contained and the encoding method used.

Mailbox Administration radio buttons

Bordering the top and bottom of the Mailbox Administration Web page are the following buttons:

- Save—takes any information displayed for a mailbox and updates it.

- Copy—allows you to borrow information from one mailbox's fields and paste it to another mailbox's fields. When the copy command is selected, all information except the mailbox ID, password, and Friendly Mailbox Name are copied into the mailbox. In this way, if you have more than one mailbox that you would like to populate with the same settings, you can pre-load the mailbox with information from another similar mailbox.

- Back to Mailbox List—returns you to the Message Care Administration Web page.

- Help—opens help pages containing information on administering *Message Care*.

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Administer the CTI

Overview   The CTI Administration Web page allows administration of the telephony server IP address, login ID, password, and identifier. In addition, it allows the identification of hunt groups (or skill set extensions in an EAS environment) that the *CentreVu* Computer-Telephony Server will be requested to monitor.

Illustration

An illustration of the CTI Administration Web page follows:
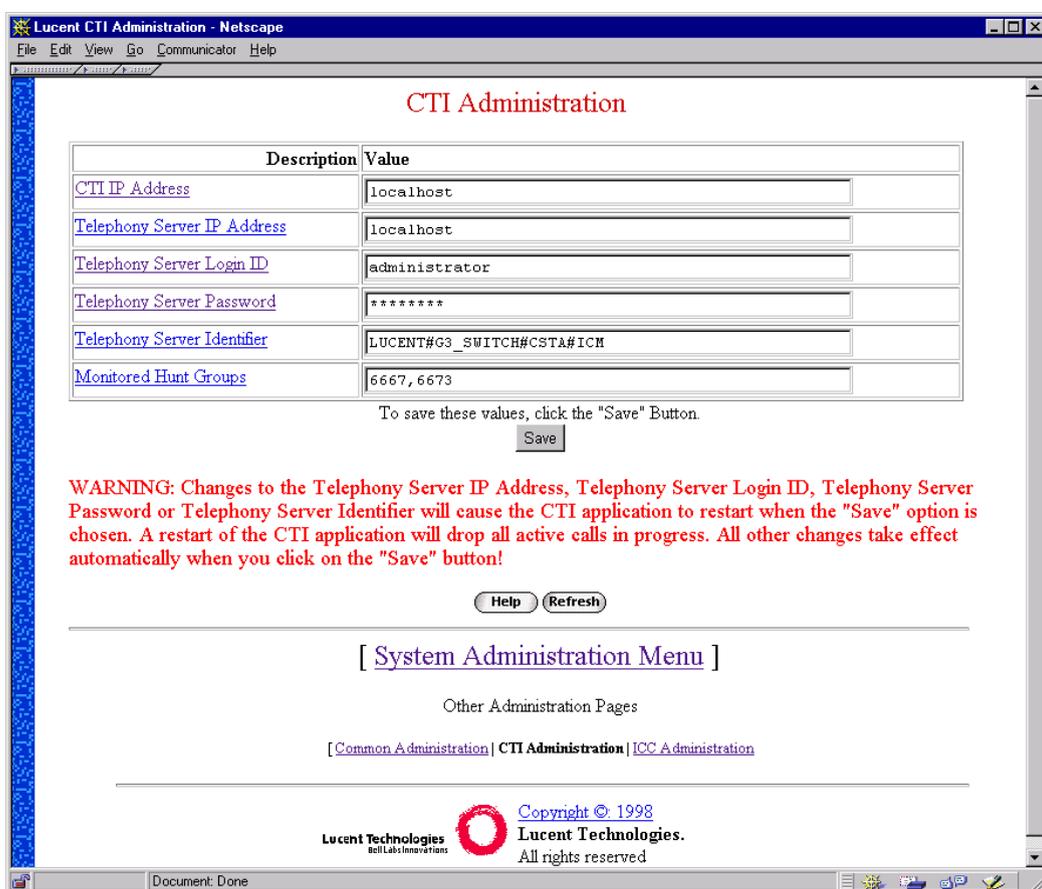
Parameter description for the CTI Administration Web page   For more information about a specific CTI Administration parameter, click on that parameter's blue-underlined text in the Description column.

The following parameters can be administered on the CTI Administration Web page:

Parameter	Description
CTI IP Address (required field)	This field contains the IP address or the network name of the server where CTI is installed.
Telephony Server IP Address (required field)	This field contains the IP address or the network name of the *CentreVu* Computer-Telephony server. If you change this field, you will have to restart the *CentreVu* Computer-Telephony server.
Telephony Server Login ID (required field)	This field contains a valid *CentreVu* Computer-Telephony server login-ID to be used by the CTI process. If you change this field, you will have to restart the *CentreVu* Computer-Telephony server.
Telephony Server Password (required field)	This field contains a valid *CentreVu* Computer-Telephony server password (associated with the login-ID) to be used by the CTI process. If you change this field, you will have to restart the *CentreVu* Computer-Telephony server.
Telephony Server Identifier (required field)	This field contains the link type description and *CentreVu* Computer-Telephony server identification name to be used by the CTI process.
	This field must exactly match the administered **Tlink Name** on the *CentreVu* Computer-Telephony server. If you change this field, you will have to restart the *CentreVu* Computer-Telephony server
Monitored Hunt Groups (required field)	Identifies the set of hunt groups (or Skill Set extensions in an EAS environment) that the *CentreVu* Computer-Telephony server will be requested to monitor.

Administer common parameters

Overview   The ICC/Message Care Common Administration Web page allows administration that is common to both the ICC and *Message Care* offers. Regardless of the offer(s) you purchased, you must still administer parameters in the ICC/Message Care Common Administration Web page.

Illustration

An illustration of the ICC/Message Care Common Administration Web page follows:

Parameter description for the ICC/Message Care Common Administration Web page

For more information about a specific ICC/Message Care Common Administration parameter, click on that parameter's blue-underlined text in the Description column.

The following parameters can be administered on the ICC/Message Care Common Administration Web page:

Parameter	Description
ICM Server Domain Name (required field)	This field contains the full domain name or IP address of the server where the ICM application is executing.
Agent Idle URL (required field)	This field contains the URL of the page to be displayed to an agent who is logged in but not currently active on a call.
Agent Alerting URL	This field contains the URL of the page to be displayed to an agent when the agent is alerted of a new call.
Out Of Service URL (required field)	This field contains the URL of the page to be displayed when the ICM is taken out of service.
License Limit URL (required field)	This field contains the URL of the page to be displayed to the caller if the call attempt has exceeded the number of simultaneous sessions for the requested call type.
Enable Agent Logout Button?	Enable/Disable the Logout button on the Agent control Window. The default is Yes.
Enable Agent Logout On Close?	Enable/Disable automatic agent logout from the call center if the agent connection to the ICM application on the ICM server is lost or dropped. The default is Yes.
Phantom Extensions for Message Calls (required field)	A list of the extensions or hunt groups used if the ASAI Phantom Call for message calls is enabled. These must be extensions of stations administered without hardware (AWOH).

**Important information
about the Agent Idle URL
parameter**

The Agent Idle URL parameter contains the URL of the page to be
displayed to an agent who is logged in but not currently active on a call.

If you do not use the *Message Care* idle page

If you do not use the *Message Care* idle page (for example, you create
your own agent idle page) but do use the *Message Care* message
processing pages, then you must set a browser cookie called `AgentId`
that contains the agent's login id in your agent idle page. The value can
be obtained from the `agentId` parameter that is passed to the popped
agent idle page by the ICM.

If the cookie is not set, agents will not be able to perform all required
actions on a message (for example, close and suspend messages) and
they could be blocked from popping the message delivery page.

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Administering the *DEFINITY* ECS

Overview

Purpose   This section describes the administration tasks that must be performed on the *DEFINITY* ECS.

Audience   This chapter is intended for *DEFINITY* ECS system administrators or persons responsible for translating the *DEFINITY* ECS for *CentreVu* Internet Solution functions. This includes Lucent Technologies' Technical Support Organizations.

References   The following list represents documents that contain information relevant to the *CentreVu* Internet Solution. For detailed instructions on administering the *DEFINITY* ECS, see the appropriate documentation or documentation set.

- *DEFINITY* ECS documentation set
- *BCS Product Security Handbook (555–027–212)*

DEFINITY ECS Administration

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Overview   Because the *CentreVu* Internet Solution uses ACD functionality, specific *DEFINITY* ECS administration for the *CentreVu* Internet Solution must be performed.

The following *DEFINITY* ECS administration must be performed:

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Direct Agent Calling (DAC)   DAC definition—Direct Agent Calling allows a call to a specific ACD agent to be treated as an ACD call. If that agent is logged in but not available, the call will queue for that agent. If the agent is not logged in, the call will follow the agent's coverage path.

How *Message Care* uses Direct Agent Calling

The *Message Care* software uses DACs for delivering retrieved or suspended messages to specific agents. Care should be taken relative to the skill group used to track DAC calls since retrieved and returning suspended calls will utilize queue slots and affect CMS reports.

Things to know about Direct Agent Calling

The following list provides important information about DACs:

- DACs should remain queued at the agent's terminal long enough to allow the agent to complete the processing of the current message call. A DAC will not abandon due to an impatient caller and should not be routed to *AUDIX*. Since DACs are "queued" to agents, care should be exercised in specifying the queue size of the DAC.

- If you use DAC for real-time calls, care must be exercised when administering DAC parameters for the *Message Care* software. Real-time calls may be administered to cover to a voice mail box, while message calls should never be sent to voice mail. Please refer to the for sample vectors that you can use to provide different coverage for an agent for real-time calls versus message calls.

- Supporting adjunct routing by passing ASAI-provided digits enables the *Message Care* software to support direct agent calls with a single vector on the *DEFINITY* ECS, a necessary feature for retrieving suspended messages and delivering direct agent correspondence.

Defining the Class of Restriction (COR)

The Class of Restriction (COR) on the switch should set the Direct Agent Calling Field to "y" for the stations administered for the *Message Care* software. This directs the *DEFINITY* ECS to treat calls originated from these extensions as ACD calls and to follow DAC parameters administered.

ACD translations The Multimedia Applications Customer Support (MACS) group inputs standard *DEFINITY* ECS ACD translations as part of the *CentreVu* Internet Solution installation.

Message Care **ACD translations**

A MACS engineer inputs standard *DEFINITY* ECS ACD translations as part of the *Message Care* software installation.

These include:

- 10 VDNs
- 10 vectors
- 10 skills
- 10 mailboxes

A queued message call has no live party on the call. Because of this, special treatments intended for the party waiting on the queued call, such as music on hold, recorded announcements, and coverage to voice mail, are not necessary.

You can expand this capability to take advantage of the powerful features of the *DEFINITY* ECS ACD software to provide sophisticated routing, prioritization, and overflow treatment for your calls.

The use of VDN of Origin (VOA) Announcement to the agent, stating the type of call (email or fax), is encouraged. This announcement is assigned to a VDN and plays a short recording when the agent answers the message call. This recording can be used to tell the agent the origination of the call (for example, "Sales Mailbox" or "Support Mailbox"). The COR on agent IDs must be set in the *DEFINITY* ECS to hear VDN of Origin Announcement (if used).

Vectors may include multiple wait steps to provide for the long wait times that are possible on message calls. For more information on vectoring, please see .

When translating additional VDNs, be sure to assign them the same COR as initially established for *Message Care*. Otherwise, the *DEFINITY* ECS will reject call attempts from the ICM to the new extensions.

Dial Plan   A dial plan must be administered for *CentreVu* Internet Solution VDNs on the *DEFINITY* ECS.

Although ASAI message calls do not use any port resources, you need a dial plan on your *DEFINITY* ECS large enough to support the number of message calls you want to queue simultaneously.

In addition, the *CentreVu* Computer-Telephony Server security database must be set up with a list of numbers for the valid VDN extensions. Please refer to the administration guides for each system for further details.

Stroke Counts   Stroke counts represent an event that you want to measure. For example, a Stroke Count may be used to keep track of the number of inquiries about a specific item. Each time you receive an inquiry on a specific item, you can enter the Stroke Count (one through nine) assigned to that item.

To help collect data on subject factors or on factors that cannot be detected by the system, it is recommended that you implement stroke counts on the agent's phone.

Phantom Extension   Phantom extensions are primarily used by applications that need to originate a call without the use of a physical device and without tying up unnecessary resources. Message calls are originated to the *DEFINITY* ECS using phantom calls. Phantom calls are distributed the same as voice calls; however, since there is no audio component to the call there is no need to use an Integrated Services Digital Network (ISDN)-PRI trunk.

Ongoing Operations   Once the *DEFINITY* ECS has been set up for the *CentreVu* Internet
Solution functionality, it requires very little administration.

When translating additional VDNs, be sure to assign them the same
COR as initially established for *CentreVu* Internet Solution
destinations. Otherwise, the *DEFINITY* ECS will reject call attempts
from the ICM to the new extensions. When adding VDNs, also
remember to add the new extension numbers to the dial plan.

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Administering the *CentreVu* Computer-Telephony for *Windows NT* software

Overview

Purpose   The following section explains what needs to be administered for the *CentreVu* Computer-Telephony software (*CentreVu* CT).

Audience   This chapter is intended for system administrators and anyone involved in connecting, installing, administering, and integrating hardware or software at the system level for the *CentreVu* Internet Solution.

References   Complete documentation containing information on *CentreVu* Computer-Telephony software is provided to customers in *.pdf* format on the CD-ROM that accompanies the software.

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Required administration

Telephony Services Database (SDB) The Telephony Services Database is the *CentreVu* CT security database that stores information about users and the devices they control. The *CentreVu* CT server uses this information in its permission checking. VDNs, skills (hunt groups), lead extensions, agent phone extensions, and phantom extensions must all be in the SDB. The *CentreVu* CT server database must be set up with a list of valid VDNs.

See the *CentreVu* Computer-Telephony documentation.

What must be administered When the *CentreVu* CT server is installed, some administration is required to integrate it with the *CentreVu* Internet Solution.

The following are administered in the Security Database during *CentreVu* Internet Solution installation:

- The *CentreVu* Internet Solution phone devices and Automatic Call Distribution (ACD) devices (VDNs and lead extensions of the ACD group extensions) are added.

- A device group(s) is added and all phone devices are added to the group.

- The *CentreVu* Internet Solution User (TMAN) is added, and the Classes of Service for the *CentreVu* Internet Solution device group is administered.

- The *DEFINITY* ECS switch setting is administered.

- Alarm parameters are administered.

- Message trace parameters are administered.

- Error log parameters are administered.

The *CentreVu* Internet Solution user must also be administered in the NT User Domain Manager. No additional administration is required specifically for the *CentreVu* Internet Solution. Refer to the installation documentation on the CD-ROM provided with the software for details. On-site training is conducted for persons who will maintain the *CentreVu* Computer-Telephony Server after installation.

Updating devices For information about updating CTI devices in the *CentreVu* Computer-Telephony server, see .

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5   Agent login and logout

Overview

Purpose   The following section describes how an agent logs in and logs out of the *CentreVu* Internet Solution.

Audience   This information is intended for anyone needing to log in to and out of the *CentreVu* Internet Solution.

Contents   The following information is contained in this section:

- Agent login: page 5-2
- Agent logout: page 5-5

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Agent login

Log in procedures   To take *CentreVu* Internet Solution calls, an agent must first log in to the *CentreVu* Internet Solution software as follows:

1   In the location or address field of your Web browser, enter the Uniform Resource Locator (URL) for the Agent Login screen.

> **Result: The Agent Login Web page appears. The following illustration is an example of an Agent Login Web page:**

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2   Enter your agent ID, extension, your name, and any additional items
requested.

Result: The Agent Control Window appears as follows:
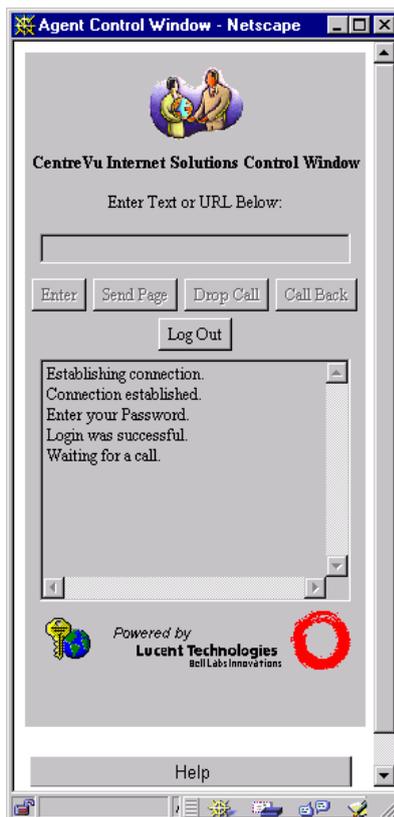
The Agent Control Window provides control buttons to perform
specific tasks. When you are active on a call, the Enter, Send Page,
Drop Call, and Call Back buttons are enabled and the Log Out
button is disabled. The opposite is true when you are not active on a
call. When control buttons are grayed out (disabled), you will not
be able to use them. Note that the Send Page button is Internet Call
Center specific, and although it is enabled when you are active on a
call, it will not work unless you have the Internet Call Center
solution installed and are connected to an Internet call.

....

3   Enter your password, if any, into the text entry field labeled Enter Text or URL Below, and then select either Enter on the keyboard or the Enter button on the Agent Control Window.

A series of connection status messages is displayed in the Agent Control Window. If the login process fails, an error message is displayed and you are prompted to try again. If login succeeds, the last status message you see is "Waiting for a call." The browser also indicates that you are in the "Agent Idle" state. At this point, you can either accept calls or log out.

> **Important!**   If you are going to handle message calls, then you must wait until the Message Care Home Page (or your own agent idle page) fully loads prior to making yourself available to receive ACD calls. If you receive a call prior to the idle page loading, the system will not be able to associate message processing with your agent ID. To recover, you must release the call, wait until the idle page fully loads, and then make yourself available to receive a call.

> **Result: The administered agent idle URL appears. The following illustration is an example of the Message Care agent idle page (Message Care Home Page):**

E N D O F S T E P S
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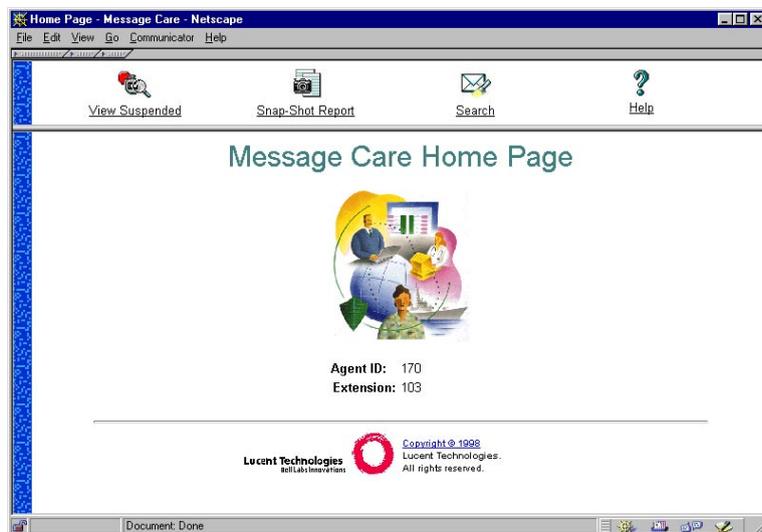
Agent logout

Methods used to logout
There are two methods you can use for logging out of the *CentreVu* Internet Solution software:

• Using the Log Out button (when enabled) from the Agent Control Window. Enabling or disabling the Log Out button is an administrative option on the Internet Call Manager (ICM). See for details.

• Using your voice terminal or CTI application. This logout procedure is always available and logs you out of the *DEFINITY* ECS. If reason codes are administered and desired, the agent should log out this way. To log out of the *Message Care* software, you must close the Agent Control Window and the *Message Care* Web page(s).

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6   How to process message calls

Overview

Purpose   The following section describes how an agent handles various types of messages and also describes the functionality provided by the *Message Care* software to handle those messages.

This information is based on Web pages delivered with the *Message Care* software. If you choose to modify *Message Care* Web pages, then this chapter may no longer apply. In addition, modifications to *Message Care* Web pages may affect the functionality of the product. Therefore, any modification of *Message Care* pages or scripts will void any warranty or maintenance support of the product.

Audience   The following information is intended for agents or anyone else needing to know how to process messages.

Contents   The following elements of message processing are described in detail:

Message processing background information

Overview

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Purpose

Message Care software enables consumers to contact your call center by various forms of email. For example, if your call center has published an email address and the email address is routed to a mailbox monitored by *Message Care* software, then a consumer using the email address will generate an inbound email message that will be delivered to you or another agent for processing.

Each inbound message (email or fax) will be routed to a specific mailbox. The mailbox to which an inbound message is routed is determined by an address (for an email message call) or a dialed number (for a fax message call).

Inbound email message calls

The following information describes some types of email messages that can be used to generate messages supported by the *Message Care* software:

• Form-based email (file attachments supported)—a form-based email is a form provided by the call center that the consumer fills out and then sends to the call center. For example, your company's consumer Web page has a Write Us link that when clicked on, presents the consumer with a form prompting the consumer to provide specific information. The consumer completes the form, and then clicks on the Send button. A form has a script that composes an email message from the contents of the form. The message is then sent to the destination address (mailbox) monitored by *Message Care* software and then sent to you or another agent for processing.

• Free-formatted email (file attachment supported)—a free-formatted email is a message that is addressed (using your company's email address) and created by the consumer. This email may be in response to a link in a Web page or may be independently composed by the consumer. For example, if your call center provided a *MAILTO* link on a consumer Web page, then the consumer would click on the email link and a message composition window for composing and sending the message (with the recipient's address automatically filled in) would appear. The consumer would then compose a message and click on a Send button. The email is then sent to the destination address (mailbox) monitored by the *Message Care* software and delivered to you or another agent for processing.

How *Message Care* handles file attachments

The *Message Care* software will store 20 attachments with each inbound message. If an inbound message contains more than 20 attachments, the *Message Care* software truncates the message (that is, attachment 21 and beyond will be discarded) and adds the following statement to the message:

```
This message has been truncated since the Message
Care application supports a maximum of 20 file
attachments. Please contact the sender for copies of
the additional attachments if necessary.
```

Inbound fax message calls

Inbound fax messages may be distributed through the *Message Care* software if your fax server supports retrieval of the fax through Post Office Protocol 3 (POP3). To use faxes with the *Message Care* software, your email server must support a fax server interface (for example, *Intuity AUDIX* with Internet Messaging). The fax server interface treats the fax image as an attachment to an email message. See for the differences between a fax message and an email message.

Differences between fax messages and email messages

Both fax and email messages are delivered to you in the same manner (the *DEFINITY* Enterprise Communications Server (ECS) notifies you of a message by sending a message call to your voice terminal); however, there are appearance and operational differences between the two types of messages.

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The following table provides the operational differences between a fax and an email message:

Fax Message	Email Message
The operations of a fax message are as follows:	The operations of an email message are as follows:
1. After answering the message call, a PagePop associated with the fax message is delivered to you.	1. After answering the message call, a PagePop associated with the email message is delivered to you.
2. The message will contain a file attachment which contains the fax image.	2. The message display will contain a Consumer's Return Email Address, Subject Text Body File, and Attachment (possibly).
3. You must click on the file attachment to view the fax message.	3. You do not have to take any action to view the email message (the email message is in the text body).
4. Reply—A third-party tool, provided by you, must be used to compose and send a fax response. The original fax image (not the newly created, annotated, or modified fax image) is stored in the Message Care database.	4. Reply—Use the Message Care software tools to compose a reply.
5. A fax message must be marked as closed (with a reason code) to complete the processing. If a third-party tool is used to compose a fax reply, the fax message still must be closed in the Message Care software to complete the process.	5. An email message must be marked as closed (with a reason code) to complete the process.

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Message processing cycle

Overview   All *Message Care* messages go through a process cycle. As an agent, you are an integral part of the message processing cycle because you are responsible for the proper handling of each message.

A message processing cycle begins when the *Message Care* software retrieves a message from the POP3 mail server and ends when the message associated with that message call is placed in the Closed state (see for more information about message call status states). Your part in the message processing cycle begins when you answer a message call.

A message call is a call (associated with a message) that is launched to the *DEFINITY* ECS. A message call remains active in the *DEFINITY* ECS while you are processing the associated message. A message call ends when you close or suspend the associated message. It is important that you keep the message call active at your voice terminal. If you hang up the message call, the *Message Care* software will launch the message call to the administered extension (Vector Directory Number [VDN]) for that mailbox, and that message call may not return to your terminal.

The *Message Care* software provides specific functionality that you can use to process messages. This functionality is accessible through *Message Care* Web pages.

Phases of the message processing cycle

> **Important!**   All processing of a message should take place through your Web browser and the *Message Care* tools.

1   Log in—to begin receiving message calls and the messages associated with those message calls, you must log in to the Message Care software and the *DEFINITY* ECS. See for more information about logging in to the *Message Care* software and the *DEFINITY* ECS.

....

2 Answer the message call—the *DEFINITY* ECS notifies you of a message by sending a message call to your voice terminal. Accept the message call by answering the message call from your voice terminal. When you answer the message call, the *Message Care* software displays the New Message Web page on your browser. The New Message Web page provides information about the message as well as all of the tools required to process the message.

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3 Determine how to process the message—once you have answered the message call and read the consumer's message, you must determine how to process the message.

Below are the options available to you for processing a message (depending on how you choose to process the message, more than one processing option may be needed):

• Redirect the message to another *Message Care-* enabled agent or skill group (transfer).

• Create and send a reply to the consumer.

• Request help before replying to the consumer.

• Terminate the message call.

• Stop the processing of the message for a specified amount of time.

• View processing information about a message.

• Look for other messages in the *Message Care* database.

• Annotate the message.

• Display help information about the *Message Care* Web page and processing options.

....

4 Message processing—once you have processed the message (that is, closed the message), the *DEFINITY* ECS releases the message call and you become available to receive another call. Based on the workload of your call center, your next call may be another message call or a real-time call (Public Switched Telephone Network [PSTN] or real-time Internet call).

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Message facts

Things to know about messages

The following subjects provides important information about messages. Read the following information about message before you begin accepting message calls.

When is a message delivered?

A message is delivered to a browser upon answering a message call on your voice terminal.

Message calls can be delivered to you only when you are available to take a call (that is, when you are in the Auto-In or Manual-In Automatic Call Distribution [ACD] work mode).

Do I have to wait until *Message Care* Web pages are fully loaded before selecting an option?

For best results, you should wait until your browser fully loads the *Message Care* Web page before selecting an option on that Web page.

Can there be more than one active agent for a single message call?

A message can be active with only one agent at a time.

Other agents may view a message when the message is active; however, only an active agent can modify the message.

Do I need to close a message?

All messages (whether fax or email) must be closed after you have completed the message handling process. If a message is not explicitly closed (for example, by hanging up the phone instead of selecting the Close option), the *Message Care* software will return the message (by way of a message call) to the VDN specified in *Message Care* administration. This may result in the message being delivered to another agent. See the for details on how to close a message.

What if I receive a message with no content or file attachment?

It is possible to receive a message with no content or file attachment. If you should receive such a message, simply close the message.

How do I ensure the correct tracking of a message?

To ensure the correct tracking of a message, you should drop the message call using only *Message Care* functionality (that is, the Close

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or Suspend options). If you release a message call with functionality other than that provided by *Message Care* (for example, hanging up the voice terminal), the *Message Care* software will not be aware of the release and will attempt to redeliver the message call possibly to another agent.

Can I print a message?

You can print all aspects of a message by printing the *Message Care* Web pages that contain the specific information you want to print. To print a *Message Care* Web page, use your browser's Print function.

Because the *Message Care* software uses frame-based Web pages, be sure to place your cursor in the frame that you want to print. For example, if your cursor is placed inside the toolbar frame of a *Message Care* Web page when you select the print function, then only the frame containing the toolbar will print.

Can I transfer a message?

To transfer a call while active on a message, use regular voice terminal transfer procedures. When the transfer of a message call is complete, the agent receiving the transferred message call will be presented with the New Message Display Web page containing the message just transferred and will then be identified as the active agent. The agent transferring the message call will be presented with the Message Care Home Web page (or the administered idle page) and will no longer be the active agent.

Can I conference a message?

To conference a call while active on a message, use regular voice terminal conference procedures. The *Message Care* software, however, will not automatically pop up a Web page containing the message to the conferee's browser. For the conferee(s) to view the same message while on the conference call, the agent initiating the conference must inform the conferee(s) to explicitly access the message by performing a search on the tracking number of the message.

Is there a limit on the size of a message that I can display?

Netscape browsers cannot display a received text message greater than 30K bytes (approximately 7500 words) in the *Message Care* applet. If you are using a *Netscape* browser and a received text message is greater than 30K bytes, then you must use the view capability accessible through the History function to see the complete message.

This limitation of 30K bytes also applies to outgoing messages created through the Reply and Forward options.

What is the default name of a saved file attachment?

When you detach a file attachment using your browser's Save function, the default name of the save file attachment will be *attach.asp*.

Does the main Message Care Web have to remain open?

If you have more than one *Message Care* Web page open at the same time, ensure that you do not inadvertently close the Main Message Care Web page.

If you inadvertently close the Main Message Care Web page, you should log out from the Agent Control Window, close the browser, and then log back in to *Message Care*. You may have to put yourself in an unavailable ACD state to disable call delivery until you are logged in to *Message Care*.

Can I surf the Web using the browser window that displays a *Message Care* Web page?

For best results and so that you do not inadvertently close the main *Message Care* Web page, use a new browser window to surf the Web.

To open a new browser window, do the following:

1. From the File menu, select the New menu item.

2. From the New menu item, select the Window item for *Microsoft* Internet Explorer or the Navigator Window item for *Netscape Navigator*.

What if I get a message call but my Web page does not fully load?

If you get a message call but your Web page does not fully load, drop the message call and *Message Care* will redeliver the message call.

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Message status states

Introduction
Each message at any point in the process cycle has a status state. Status states describe each message's standing in the message handling process. You can view the status state of any message through the Message Care View Web pages. You can access the Message Care View Web pages through the Snapshot report or the Search option. In the Message Care View Web pages, you can view all of the status states that a message has gone through during its process cycle.

The following table provides descriptions for the different message status states available in the *Message Care* software.

Option	Description
Blocked	The *Message Care* software places a message in the Blocked state if the **Junk Mail Screening** parameter is administered and activated on the monitored mailbox, and a match has been made between the originator of the mail message and the administration entry on the Junk Mail Screening form. When a message is blocked, the *Message Care* software will not attempt to launch a message call. A message in the Blocked state must be retrieved manually from the View Web page. You may want to periodically review blocked messages to ensure that the message should not be processed.
Overflowed	The *Message Care* software places a message in the Overflowed state while it is awaiting resources to place the message call. Messages will be placed in the Overflowed state if the maximum number of allowed simultaneous message calls between the *Message Care* server and the *DEFINITY* ECS (as administered in Message Care) is reached. Overflowed calls must wait for a message call(s) to drop (hence resources become available) before being able to launch the message call.
Launched	The *Message Care* software places a message in the Launched state when the message has been successfully launched to the *DEFINITY* ECS and is waiting to be answered by an agent.
Active	The *Message Care* software places a message in the Active state when the message call has been answered at an agent's voice terminal. The message remains in the Active state the entire time the message call is active on your voice terminal.
Suspended	You place a message in the Suspended state when you want to postpone the processing of that message. The message remains in the Suspended state until it is retrieved, the suspend timer expires, or a reply for that message has been received.

Option	Description
Failed	The *Message Care* software places a message in the Failed state when repeated attempts to deliver the message fail. A message in the Failed state must be retrieved manually from the View Web page.
Closed	You place a message in the Closed state when you are finished processing the message. The Closed state signifies the end of the process cycle.

Message processing options

Introduction   The *Message Care* software provides a number of message processing options. These options are presented on the toolbar of the *Message Care* Web pages. Some of the processing options can be administered to better meet your call center needs.

The following table lists the processing options provided by the *Message Care* software.

Option	Application
Reply	Use the Reply option to send a reply to the consumer. For example, your reply to the consumer could be a status update or a complete answer to the consumer's request. You can send a reply to the consumer only if you are active on the original message in which you want to reply. See <u>Message Care Reply Web page: page 6-21</u> to learn how to reply to a consumer's request.
Forward	Use the Forward option when you need help from another person (for example, a subject matter expert [SME] or another agent) to compose a consumer reply. With this option, you are forwarding a copy of the consumer's original message (with the option of including your own comments and attaching call center files) to another person for help. You can forward a message only if you are the active agent on that message. Forwarding a message does not remove you as the active agent on the message. After you have forwarded a copy of the original message, you can suspend the active message to wait for an answer and to process other messages. See <u>Message Care Forward Web page: page 6-30</u> to learn how to forward a message.
Suspend	Use the Suspend option when you want to delay the processing of a message for a specified amount of time. For example, you may want to suspend the message while you are awaiting an answer from a message you forwarded. Another reason for suspending a message may be because incoming real-time calls (PSTN or real-time Internet call) have increased and your assistance is needed to handle the real-time calls rather than the non-real time calls (message calls). You can use the Suspend option only if you are the active agent on that message. When you click on the Suspend option, the Suspend Message Web page appears with the option to confirm the suspend. See <u>Suspend Message Web page: page 6-27</u> to suspend an active message.

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Option	Application
History	Use the History option when you want to view a chronological record of message processing details. A message's history log displays the event changes a message has undergone along with the agent active during those state changes. You do not have to be active on the message to view a message call's history. See [Message History Web page: page 6-44](#) to learn more about the History Web page.
Search	Use the Search option when you want to find specific messages in the *Message Care* database. When you conduct a search, a list of messages matching the search criteria you entered appears. From this list, you can refine the search or view a specific message. You do not have to be active on a message to conduct a search. See [Message Search Web page: page 6-37](#) to learn how to search for a message.
Note	Use the Note option when you want to document additional information about the processing of a message. You can add a note to a message only if you are the active agent on that message. Even if you are not the active agent on a message, you can view notes about a specific message by viewing the history of that message. All notes are saved in the message's history record. See [Message Care Note Web page: page 6-47](#) to learn how to create a note while you are active on a message.
Send	Use the Send option when you are ready to send a reply to a consumer or when you want to forward a message to another person (SME or agent). You can send a reply or forward a message regarding an original message only if you are the active agent on the original message. See [Send Acknowledgment Web page: page 6-56](#) to learn more about this option.
Cancel	Use the Cancel option when you want to quit the creation of a forward message or reply and return to the original message through the New Message Display Web page, or when you want to quit the creation of a note.

Option	Application
Save	Use the Save option when you want to save your reply or save your forwarded message. Situations that may warrant a save are: • Incoming real-time calls (PSTN or real-time Internet call) have increased and your assistance is needed to handle the real-time calls rather than the non-real time calls (message calls). • For unknown reasons, you may have to abandon the composition of a reply or forward message. In this case, you may want to save the information you have already composed so that you can finish it at a later time. When you retrieve a saved message, you are presented with the original message. From here, you can click on the Reply button (if you were in the process of replying to an original message) and you will be presented with the Message Care Reply Web page with the saved data; or, you can click on the Forward button (if you were in the process of forwarding a message) and you will be presented with the Message Care Forward Web page with the saved data. If you use the *Message Care* Close option to complete the processing of a message immediately after a Save, the saved reply or forward message will be lost. This is because a closed message cannot be reopened.
Close	Use the Close option to complete the processing of a message (all messages must eventually be closed). The most likely reason for closing a message is that you have completed the processing of that message (for example, you sent a final reply to the consumer). You may also want to close a message if you have determined that the message is junk mail and requires no processing. You can use the Close option only if you are the active agent on that message. When you select the Close option, the Close Message Web page appears with the option to confirm the close. See Close Message Web page: page 6-62 to learn how to close an active message.
Retrieve	Use the Retrieve option when you want to resume processing of an original message. You can retrieve a message that is in the Launched, Suspended, Blocked, Overflowed, and Failed states. You cannot retrieve a closed or active message. To retrieve a message, you must be viewing that message from the View Web page. See Retrieve Acknowledgment Web page: page 6-54 to learn how to retrieve a message.
Resend	Use the Resend option to resend a reply or forward message. See Handling undeliverable messages and notifications: page 6-64 for more uses of the Resend option.

Option	Application
Message Display	Use the Message Display option to display the original message. Once the message is displayed, you can send your reply or forwarded message to another recipient or use one of the other processing options available on the Web page.
Reset	Use the Reset option to clear any text entered in to the Web page fields.
View Suspended	Use the View Suspended option to view your suspended messages. When you click on the View Suspended button, the *Message Care* software conducts a search and provides a list of messages suspended by you.
Snap-Shot Report	Use the Snap-shot Report option to generate a real-time report. See Real Time Snap-Shot Report Web page: page 6-58 for more information about Message Care reports.

Message Care message processing Web pages

Overview

Purpose The *Message Care* software provides Web pages to handle all facets of email message processing. All of these Web pages contain information pertinent to the task at hand as well as options for further processing. Message processing options are located on the toolbar of each *Message Care* Web page. The processing options available on a specific Web page depends on the purpose of the Web page. A Help option is also available on each Web page toolbar that provides help information about that specific Web page. (See for detailed information about each processing option.)

Contents The following information describes what is contained in each Web page as well as how to use each Web page:

Message Care Home Page (agent idle page)

About   After you have logged in to the *DEFINITY* ECS and *Message Care* software, the Message Care Home Page appears, if administered. The Message Care Home Page is an agent idle page where you wait to answer a message call.

While you are waiting for a message call, you can do the following:

• View your Suspended Messages

• Generate a Real Time Snap-Shot Report

• Search for other messages

• Browse the Internet or your Intranet

• Minimize the browser window and perform other duties

Illustration   The following illustration is an example of the *Message Care* agent idle page:
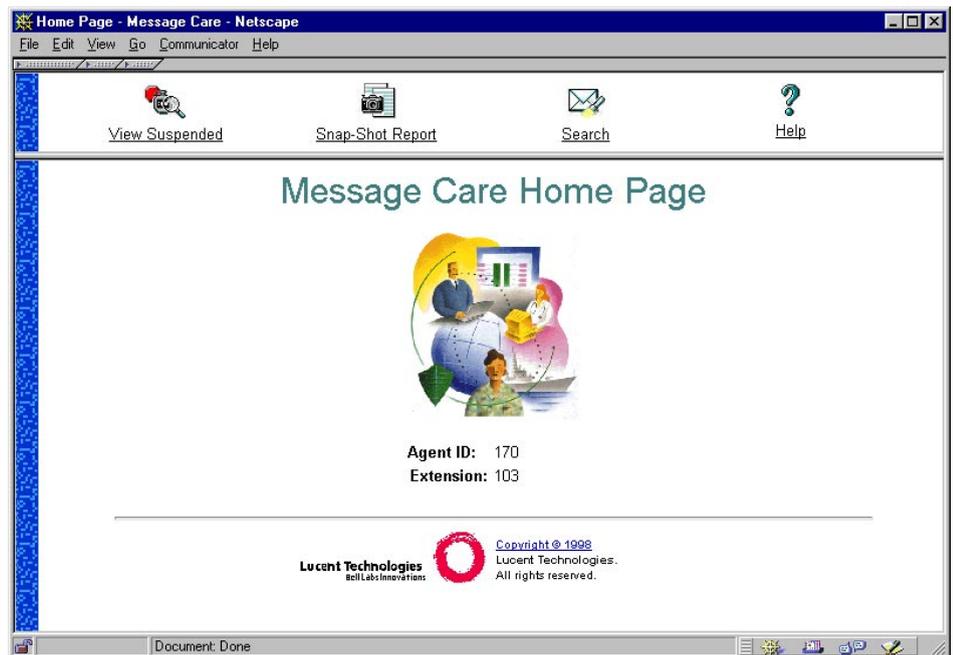
New Message Web page

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About   A message is delivered to you when you answer a message call from
your voice terminal. When you answer the message call, the *Message
Care* software will display the New Message Web page. The New
Message Web page provides information about the message as well as
tools to process the message. It is from this Web page that message
processing begins.

Illustration   The following illustration is an example of the New Message Web
page:
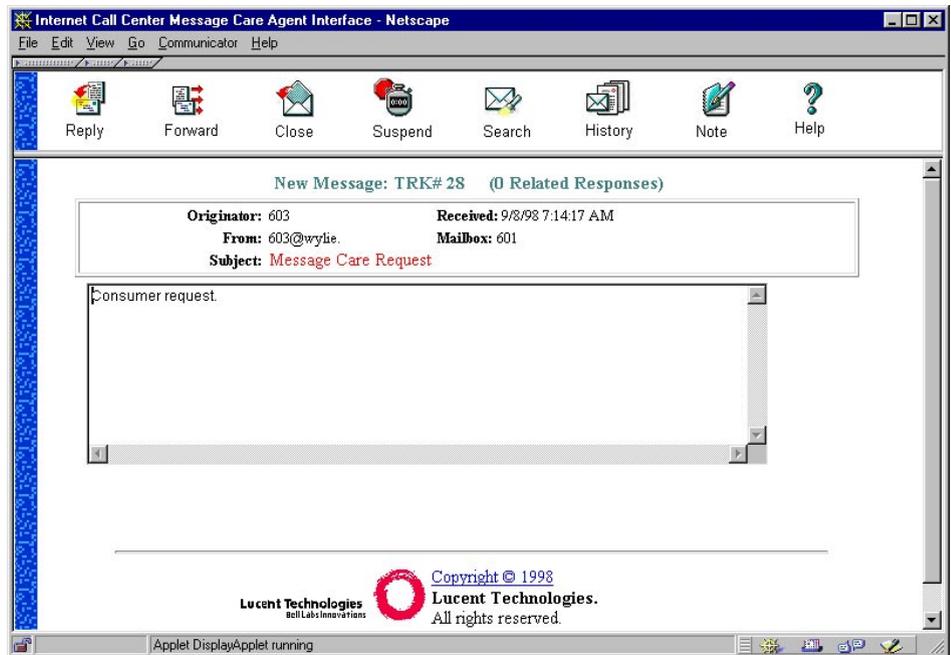
**New Message Web page
fields**   The following table provides descriptions of the fields contained in the
New Message Web page:

Field	Description
TRK# (Tracking Number)	A numeric value (up to eight digits) automatically generated by *Message Care* software for each received original message (for example, TRK # 12345678). A tracking number is followed by a four-digit suffix as a site identifier (for example, TRK # 12345678-1000). The *Message Care* software uses the tracking number to handle messages. As an agent, you can use the tracking numbers to find a specific message by searching on that message's tracking number. A consumer could use a tracking number to reference an email correspondence.
Mailbox	This field identifies the "friendly name," as administered in the *Message Care* software, for the mailbox that received the message.
Originator	This field identifies the name of the person (agent or consumer) who created the message.
From	This field identifies the email return address of the originator. The *Message Care* software uses this email address to populate the To field in a reply message.
Subject	This field provides the subject of the message.
Received	This field provides the time and date the message was retrieved by the *Message Care* software.
Attachments	This field represents the links that identify file attachments contained in the message. Based on your browser's functionality, you will either be prompted to open or save the attachment when you click on its link. To view file attachments, you must have associated helper applications. (Your call center must provide the appropriate helper applications based on the types of messages you expect to receive. For instance, if you process fax messages, you must have a helper application for viewing and handling faxes.) If you cannot view a file attachment, contact your system administrator. If the message does not have any attachments, then the Attachments field will not appear.
Related Responses	This field identifies the number of related responses. Related responses include replies sent to the consumer, messages forwarded to other people (for example, an SME or an agent), and messages sent by the consumer. Use the History option to view related responses. If the message does not have any responses, then the Related Responses field will not appear.
Text Body	This field provides the actual message from a consumer. If this area is blank, then the message is most likely a fax message, especially if there is a file attachment.

New message processing   From the New Message Web page, determine how you want to process the message. For example, you may know exactly how to reply to the consumer; therefore, you can use the Reply option to compose a reply and send it to the consumer; or, you may want to search the history database prior to creating your reply. In this case, you would use the History option. After finding the information in the history database, you would close the Message History Web page and then click on the Reply button to compose a reply to the consumer.

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Message Care Reply Web page

Introduction   The Message Care Reply Web page appears when you click on the Reply button. From the Message Care Reply Web page, you can reply to the consumer's request by composing a reply and then sending that reply to the consumer. For example, you may want to keep your consumer informed about the status of their request. In this case, you could use the Reply option to send your consumer a reply stating that you are working on the request and will have an answer for them shortly. Replying to a message does not complete the processing of a message. To complete the processing of a message after you have sent a reply, you must close the message.

Illustration   The following illustration is an example of the Message Care Reply Web page:
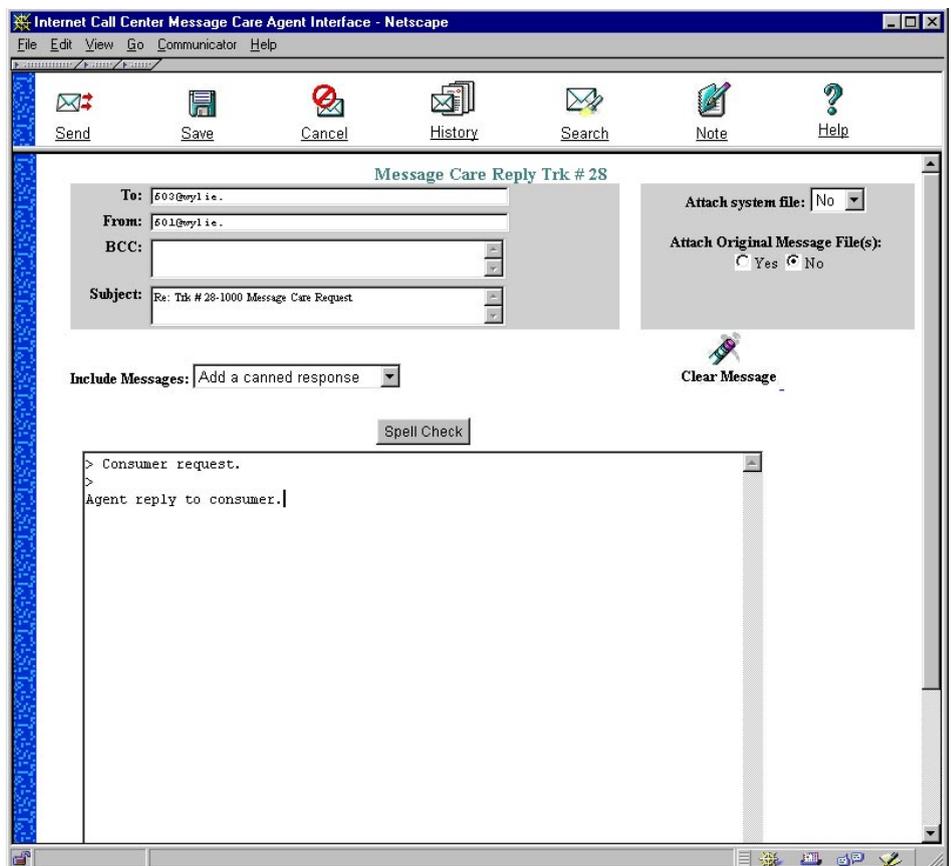
***Message Care* Reply fields and buttons**

The following table provides descriptions of the fields and buttons contained in the Message Care Reply Web page:

Field/Button	Description
To	This field identifies the email address where your reply will be sent. This field will automatically be populated with the "From" information associated with the original message. You can edit this field.
From	This field identifies the return email address set by your administrator for the mailbox to which the message was delivered. You can edit this field.
BCC	This field is a blank field used to enter additional recipients as blind copies. Use this field if you want to send your reply to additional recipients but do not want to show your consumer the email list of additional recipients. Before using the BCC field, ensure that your Simple Mail Transfer Protocol (SMTP) server supports blind copies.
Subject	This field contains the prefix Re: (indicates a reply message), the original message call's Trk #, and subject text. The Subject field is limited to 128 characters.
	You can edit this field; however, if you modify or remove the subject (especially the Trk #), the *Message Care* software will not be able to link a consumer response with the original message. The *Message Care* software searches the subject lines of email messages to see if there is a tracking number match with an open message. If the tracking number is not found in the subject header, no match can be made.
Attach system file	This field is a drop-down list box providing file attachments that you can include in your reply. You can select only one file attachment to be included in your reply. If there is no file attachment drop-down list box, then file attachments for that mailbox were not administered. The default is No.
Attach Original Message File(s)	This field has option buttons (Yes and No) used to include or exclude file attachments received in the original message. The default is No.
Include Messages	This field is a drop-down list box providing a set of pre-formatted answers (set by your administrator) for your reply. When selected, the pre-formatted answer is inserted in the text box at the point where your cursor is located. You can select more than one pre-formatted answer to include in your reply or enter your own text. The first item in the drop-down list box (Add a Canned Response) is explanatory only and not a valid choice. If you encounter an error message when you try to include a canned response, contact your system administrator.

Field/Button	Description
Clear Message	This button clears all the text from the reply text box when clicked on and then confirmed. If you inadvertently clear original text, you can add it back by selecting the *Include Original Message* item from the Include Message drop-down list.
Spell Check	This button checks text in the text box for spelling errors. The spell checker identifies words that are not in the spell check dictionary and allows you to either edit the word, ignore the word, or add the word to the dictionary. The spell check dictionary is shared by all *Message Care* agents; therefore, care should be taken when adding words to the dictionary.
Text Box	This field is a standard text box that provides basic text input with editing support. Editing includes the insertion or deletion of characters. The text box is where you compose your reply to the consumer. By default, the text box is populated with the original message. However, if you or someone else saved a reply message, the text box will be populated with the reply text instead of the original message text.

Things to know about replying to a message

The following subjects provide information about how the *Message Care* software handles replies to original message calls:

How do I distinguish between original message text and added text?

By default, the original message text received from the consumer is included in the text box. Each line of the original text is preceded by the ">" symbol. This symbol distinguishes between the original message's text and text added during processing.

EXCEPTION: If you save a reply and then retrieve that reply at a later time, the saved reply will populate the text box, not the original message text.

Can I use copy and paste commands?

You can use Copy and Paste commands to add text into your reply. When you use these commands, formatting style is lost.

Do I get a return receipt when I send a reply?

When you send a reply, the *Message Care* software will not request a return receipt from the SMTP server.

What type of information is stored when I reply to a message?

The *Message Care* software will store the following information for each reply submitted:

- Message reply text
- List of file attachments
- Message reply subject
- Who sent the message

The *Message Care* history database will record when a reply was sent to the SMTP server as well as who sent it.

What type of information is required when I reply to a message?

To submit a reply for delivery to the consumer, the reply must contain the following information:

- Return address
- Destination address
- Either a message subject, file attachment, or text component.

What if my reply submission fails?

The *Message Care* software will inform you when a reply submission failed. In this case, you may want to save your reply and then follow the procedures established by your call center.

What happens if I close the original message before I reply to the customer?

If you close the original message that you are replying to before sending your reply, the reply will be lost.

How does the Save option work when replying to a message?

You can save only one reply per original message. Subsequent save commands on a reply will overwrite the reply.

The Save option will save only the recipient list, the text body, and the From and To addresses of a Reply message. The Save option does not retain your attachment selections.

Replying to an original message

To reply to an original message, do the following:

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1 If you have not already done so, click on the Reply button. The Message Care Reply Web page appears populated with information about the original message.

You can add a note anytime throughout the Reply process.

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2 Verify that the consumer's email address located in the To field is correct. If not, enter the correct email address. For example, you may notice that the consumer entered their email address incorrectly (`consumer@ao.com` instead of `consumer@aol.com`) when entering information in a form created by your call center.

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3 The From field email address is set by your administrator and in most instances will be correct. However, if you determine that the From field email address is incorrect, enter the correct address.

....

4 From the BCC field, enter the email addresses of other recipients for your reply. If you do not want to send your reply to other recipients, keep the field blank.

....

5 By default, the original message content or the content of a previously saved reply will appear in the text box. Refer to the following list for instructions on how to perform the tasks associated with the text box:

- To clear text from the text box, click on the Clear Message button. If you inadvertently clear original text, you can add it back by selecting the *Include Original Message* item from the Include Message drop-down list.

- To add a canned response, click in the text box area, and then click on the Include Message drop-down list and select a reply.

- To add your own text to the reply, click in the area where you want to add text, and then begin entering your text.

- To spell check the text in the text box, click on the Spell Check button.

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6   If you want to include a file attachment with your reply, select the file
from the Attach System File drop-down list.

....

7   From the Attach Original Message File(s) option buttons, select Yes to
include all of the original message's file attachments with your reply. If
you do not want to include the original message's file attachments with
your reply, select No.

....

8   To send your reply, click on the Send button. The Send
Acknowledgment Web page appears stating that your message was sent.
See for more information.

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9   At this point, you can do the following:

•   Close the message

•   Suspend the message

•   Display the message

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Suspend Message Web page

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Introduction   The Suspend Message Web page appears when you click on the Suspend button. When you suspend a message, you are delaying the completion of that message for a specified period of time and requesting that the *Message Care* software launch the suspended message call when the specified time has expired.

Why suspend a message?

The following list provides some reasons why you might want to suspend a message:

- To await information from a forwarded message

- To go on a scheduled lunch or break

- To handle the real-time calls (PSTN or real-time Internet call) rather than the non-real time calls (message calls).

- To work on non-call related activities

For example, you may want to suspend a message because you are scheduled to go on a break. In this example, you could suspend the message for 15 minutes. When 15 minutes has expired, the *Message Care* software will launch the suspended message call so that the processing of that message can continue.

### What happens when I suspend a message?

When you suspend a message, the *Message Care* software drops the message call associated with that message. The ACD work state that you are placed in when a message call is dropped depends on *DEFINITY* ECS station administration.

When you suspend a message, the *Message Care* software does the following with the message:

- Changes the status state from Active to Suspended

- Records the suspension reason code

- Records the suspending agent (agent ID) and the administered return destination. In addition, the *Message Care* software continues to associate you (the suspending agent) with the original message.

....

- Checks for any message response that was received while you were processing the message. If a response was received, the *Message Care* software informs you of the response and allows you to cancel the suspension of the message.

- When the suspension time has elapsed, the *Message Care* software will launch the message call. The launched message call may go directly to you or to some other agent. Where the launched message call is delivered depends on the VDN number specified by your administrator.

Illustration   The following illustration is an example of the Suspend Message Web page:
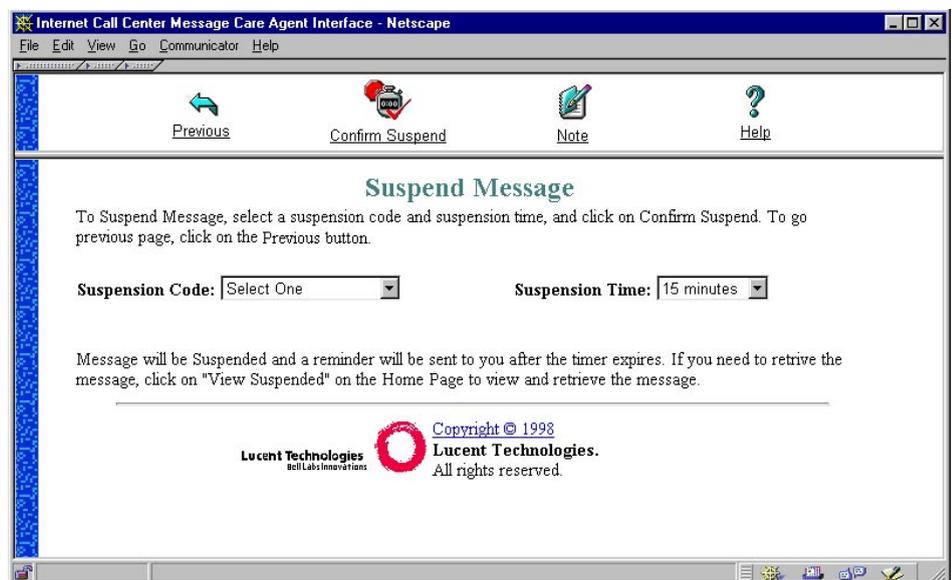
Things to know about suspending messages   The following list provides information about how the *Message Care* software handles suspended messages:

- You must save and close notes that you are composing before suspending the associated message.

   Specific events can relaunch a suspended message. Events that can activate a suspended message are as follows:

   – You manually retrieve the suspended message which cancels the suspension timer

   – The suspension timer expires and a message call related to the suspended message is launched

   – Someone sends an email linked to the suspended message (for example, a reply to a forwarded message)

Suspending a message call   To suspend a message, do the following:

....

1   If you have not already done so, click on the Suspend button. The Suspend Message Web page appears.

....

2   Select a reason for suspending the message by clicking on a suspension code in the Suspension Code drop-down list box.

....

3   Select the amount of time you would like to suspend the message by clicking on a suspension time in the Suspension Time drop-down list box.

....

4   To add a note (optional), click on the Note option. The Message Care Note Web page appears. Compose your note, and then click on Save to preserve your note or click on Cancel to disregard your note.

....

5   Select the Suspend Confirm button to suspend the message. The *Message Care* software releases the message call and the Message Care Home Page (or the administered idle page) appears. You are now available to take new message calls.

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Message Care Forward Web page

Introduction The Message Care Forward Web page appears when you click on the Forward button. From the Message Care Forward Web page, you can forward a copy of the consumer's original message to people other than the consumer.

Why forward a message?

You may want to forward a copy of the consumer's original message to a Subject Matter Expert (SME), another agent, or to another call center to request information about or help with the consumer's original message. When you forward a copy of the consumer's original message, you can also include your own comments in the message as well as a call center file attachment.

What happens when you forward a message?

When you forward the consumer's original message, you are still the active agent on the message. Forwarding a message is unlike transferring a message. When you transfer a message, you are relinquishing ownership of the original message. If you want to transfer responsibility for a message to another agent or group, use the transfer function not the forward function.

Illustration   The following illustration is an example of the Message Care Forward
Web page:
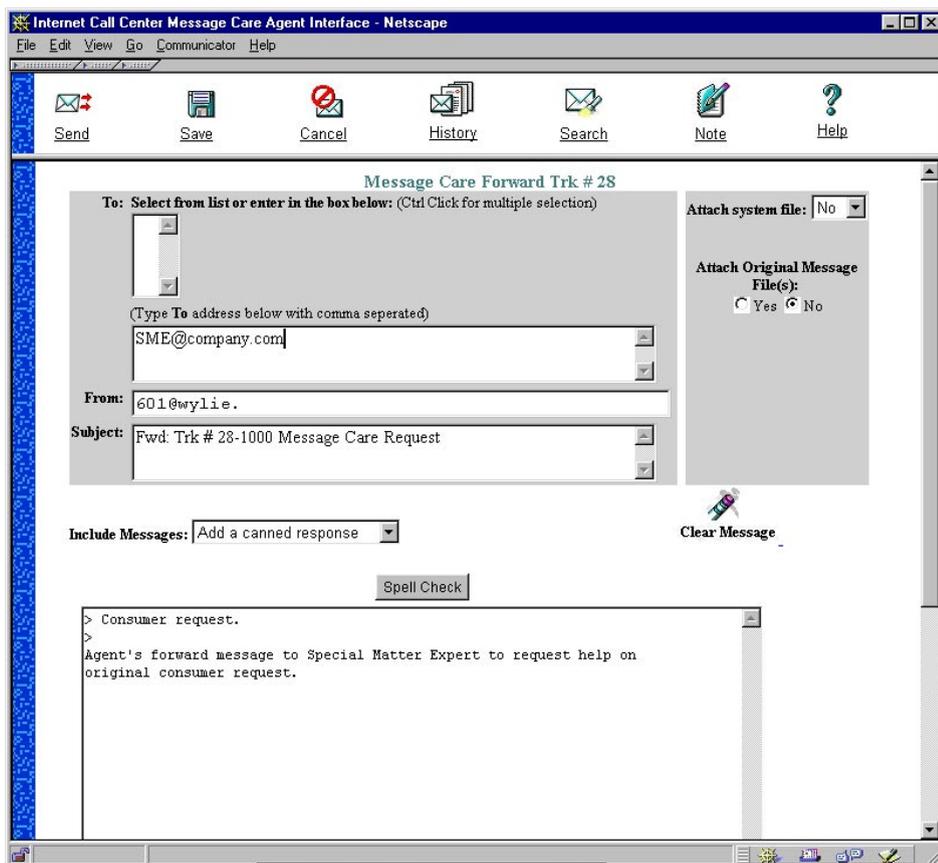
***Message Care* Forward
fields and icons**

The following table provides descriptions of the fields and buttons
contained in the Message Care Forward Web page:

Field/Button	Description
To	This field provides a list of administered email destinations to which you can send your message. An empty list box indicates that no email destinations were administered. In this case, you would use the text box below the To field to enter an email address. Use commas to separate multiple email addresses. Because commas are used to distinguish between multiple addresses, the *Message Care* software does not support email addresses containing commas.
Subject	This field contains the prefix Fwd: (indicates a forwarded message), the original message call's Trk #, and original subject text. You can edit this field; however, if you modify or remove the subject (especially the Trk #), the *Message Care* software will not be able to link a consumer response with the original message. *Message Care* searches the subject lines of email messages to see whether there is a tracking number match with an open message. If the tracking number is not found in the subject header, no match can be made.
Attach system file	This field is a drop-down list box providing file attachments that you can include in your forward message. You can select only one file attachment to be included in your forward message. If there is no file attachment drop-down list box, then file attachments for that mailbox were not administered. The default is No.
Attach Original Message File(s)	This field has option buttons (Yes and No) used to include or exclude file attachments received in the original message. The default is Yes.
From	This field is a return email address set by your administrator for the mailbox to which the message was delivered. The From field allows the SME to reply back to your call center. You can edit this field if you want the SME's reply to go elsewhere. Follow your call center's established procedures.
Include Messages	This field is a drop-down list box providing a set of pre-formatted answers (set by your administrator) for your forward message. When selected, the pre-formatted answer is inserted in the text box at the point where your cursor is located. You can select more than one pre-formatted answer to include in your forward message or you can enter your own text. The first item in the drop-down list box, Add a Canned Response, is explanatory only and not a valid choice.
Clear Message	This button clears all the text from the text box when clicked on and then confirmed. If you inadvertently clear original text, you can add it back by selecting the *Include Original Message* item from the Include Message drop-down list.

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Field/Button	Description
Spell Check	This button checks text in the text box for spelling errors. The spell checker identifies words that are not in the Spell Check dictionary and allows you to either edit the word, ignore the word, or add the word to the dictionary. The spell check dictionary is shared by all *Message Care* agents; therefore, care should be taken when adding words to the dictionary.
Text Box	This field is a standard text box that provides basic text input with editing support. Editing includes the insertion or deletion of characters. The text box is where you compose your forwarded message to the consumer. By default, the text box is populated with the original message. However, if you or someone else saved a forwarded message, the text box will be populated with the forwarded text instead of the original message text.

Things to know about forwarding a message

The following subjects provides information about how the *Message Care* software handles forwarded messages:

Is my return address used when I forward a message?

The return address of a forwarded message is the same address to which the original message was sent. You can edit the return address.

Can the recipient of my forward message reply to the consumer?

When you forward a message, the consumer's email address is contained in the text body of the forwarded message. The recipient of the forwarded message will be able to reply to the consumer by using the address contained in the text body.

How do I distinguish between original text and added text?

By default, the original message text received from the consumer is included in the text box. Each line of the original text is preceded by the ">" symbol. This symbol distinguishes between the original message's text and text added during processing.

EXCEPTION: If you save a forwarded message and then retrieve that forwarded message at a later time, the saved forward message will populate the text box, not the original message text.

Can I use copy and paste commands?

You can use Copy and Paste commands to add text into your forward message. When you use these commands, all formatting is lost.

How do I know that my forward message was sent?

When you forward a message, you will not get a return receipt from the SMTP server.

What forward information is stored by *Message Care*?

The *Message Care* software will store the following information for each forwarded message:

- Message forward text
- List of file attachments
- Message forward subject
- Who forwarded the message

The *Message Care* History database will record when a forward message was sent to the SMTP server as well as the agent who sent it.

What information is required to forward a message?

The following information is required when forwarding a message:

- Return address
- Destination address
- Either a message subject, file attachment, or text

How do I know if I forwarded my message successfully?

The *Message Care* software will inform you when your forwarded message failed. In this case you may want to save your forwarded message, and then follow procedures established by your call center. For information about handling undeliverable messages, see .

What happens if I close the original message before forwarding it?

If you close the original message before sending your forward message, the forward message will be lost.

How does the Save option work when forwarding message?

The Save option will save only the recipient list, the text body, and the From and To addresses of a forwarded message. The Save option does not retain your attachment selections.

Can I save more than one forward message per original message?

You can save only one forward message per original message. Subsequent save commands on a forward message will overwrite the forward message.

Forwarding a message

To forward a copy of the consumer's original message, do the following:

....

1 If you have not already done so, click on the Forward button. The Message Care Forward Web page appears populated with information about the original message.

You can add a note anytime throughout the Forward process.

Important! If you are using *Intuity AUDIX* as your outbound mail server, then you cannot use carriage returns or spaces in the recipient list.

....

2 Enter one or more email addresses to whom you want to forward a copy of the consumer's original message. You can use the To drop-down list to select from an administered list of recipients, or you can type one or more email addresses in the To text box.

....

3 By default, the original message content or the content of a previous forward will appear in the text box. Refer to the following list for instructions on how to perform the tasks associated with the text box:

• To clear text from the text box, click on the Clear Message button. If you inadvertently clear original text, you can add it back by selecting the *Include Original Message* item from the Include Message drop-down list.

• To add a canned response, click in the text box area, and then click on the Include messages drop-down list and select a reply.

• To add your own text to the forward message, click in the area where you want to add text, and then begin entering your text.

• To spell check the text in the text box, click on the Spell Check button.

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4 If you want to include a file attachment with your forward message, select the file from the Attach system file drop-down list.

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5 From the Attach Original Message File(s) option buttons, select Yes to
include all of the original message's file attachments with your
forwarded message. If you do not want to include the original message's
file attachments with your forwarded message, select No.

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6 To send your forward message, click on the Send toolbar button. The
Send Acknowledgment Web page appears stating that your forward
message was sent to the email address of the recipient. See Send
Acknowledgment Web page: page 6-56 for more information.

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7 At this time, you can do one of the following:

- Close the message
- Suspend the message
- Display the message

Message Search Web page

Introduction A new browser window (Message Search Web page) appears when you click on the Search button. If you do not see the Message Search Web page, it may be minimized. Look on your Taskbar to see if the Message Search Web page is minimized and if so, maximize the window.

The Search function allows you to search for messages using specific search criteria. *Message Care* software presents the messages matching your search criteria through the Search Results Web page. You can view any message presented in the Search Results Web page; however, you can retrieve only those messages with a Launched, Suspended, Blocked, Overflow, or Failed status state (the Retrieve button is present for messages in these status states).

Why conduct a message search?

You may want to conduct a search on messages for the following reasons:

- To determine the status of a consumer's request
- To view suspended messages
- To search for messages from the same consumer
- To reply to a consumer using the same reply from a similar consumer request

Illustration   The following illustration is an example of the Message Search Web page:
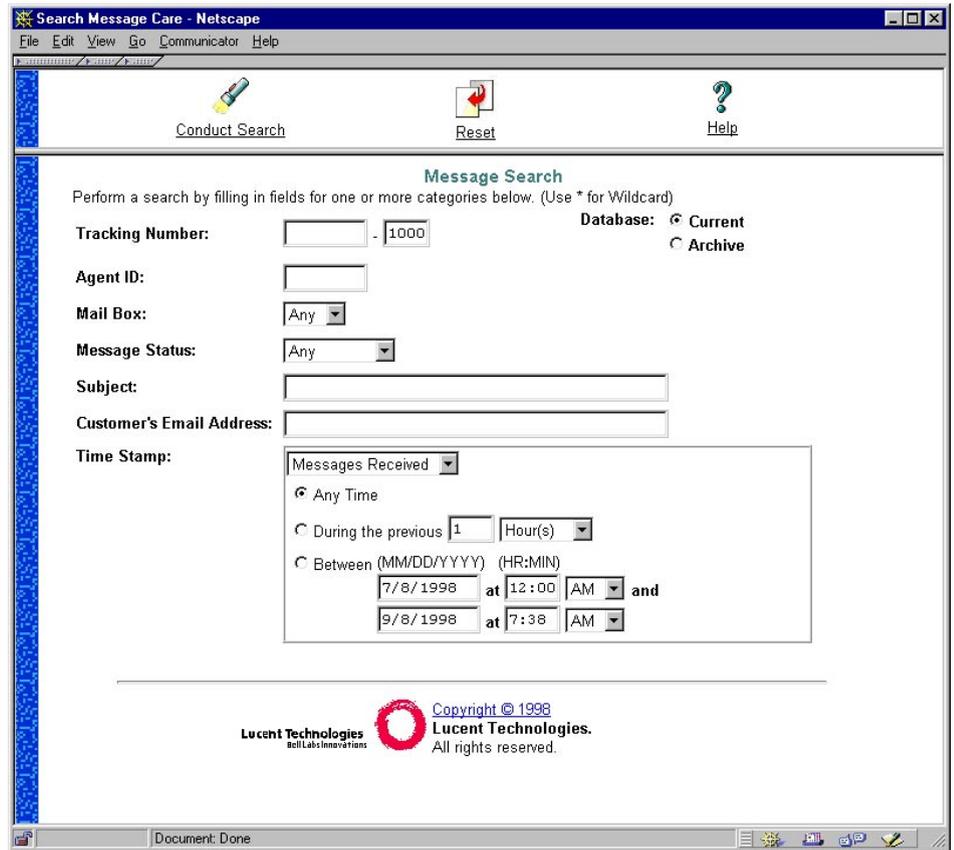
Message Search fields   The following table provides descriptions of the fields contained in the Message Search Web page:

Field	Description
Tracking Number	Use this search category when you want to search for messages by their tracking numbers. The Tracking Number category provides two text boxes. The first text box is used to enter a message's tracking number which can be populated with digits and wild cards of up to eight characters. The second text box is used to enter the site identifier which can be populated with digits and wild cards of up to four characters. The default for the first text box is no value and the default for the second text box is the site identifier administered for your system.
Database	Use this search category to identify the database for which you want to conduct your search. You must select either the Current or Archive option. The default is Current.
	As the Current database reaches its size limit, your system administrator will move closed messages to the Archive database.

Field	Description
Agent ID	Use this search category when you want to search on messages that have been or are still being processed by a specific agent or agents. The Agent ID text box can be populated with digits and wild cards of up to 12 characters. The default is no value.
Mail Box	Use this search category when you want to search for messages that arrived in a specific mailbox. For example, you may want to search for all messages that were sent to your Technical Support mailbox. The default is Any Mail Box.
Message Status	Use this search category when you want to search for messages with a specific status. For example, you may want to search for all messages in the Failed state. The default is Any Status.
Subject	Use this search category when you want to search for messages containing specific text in the subject field. The Subject text box can be populated with up to 128 alphanumeric characters (including wildcards). However, after 40 characters the text scrolls to the right. The default is no value.
Customer's Email Address	Use this search category when you want to search for messages from a specific email address. The Customer's Email Address text box can be populated with up to 128 alphanumeric characters (including wildcards). However, after 40 characters the text scrolls to the right. The default is no value.
Time Stamp	Use this search category when you want to search for a specific time and date that messages were either received or closed. For example, you may want to find all messages that were closed between 06/01/99 at 11:00 am and 06/05/99 at 04:00 pm. Or, you may want to search on all messages that were received between 06/01/99 at 11:00 am and 06/05/99 at 04:00 pm.

Things to know about searching for a message

The following subjects provides important information about the *Message Care* Search function:

What are the search criteria rules?

The following list provides search criteria rules:

- Multiple search criteria can be used to find a specific message.

- You must follow the syntax displayed in the Message Time category for the date and time fields.

    Not all search categories allow text entry. Instead, some search categories provide a drop-down list box which allows you to select from a list of category items. These categories are:

    – Mailbox—choose from a list of administered mailboxes

    – Message Status—choose from a list of status states

    – Message Time—choose either Received or Closed

– Message Time:During the Previous—choose either Hour(s), Day(s), or Week(s)

– Message Time:HR:MIN—choose either AM or PM.

• The *Message Care* software sorts the search results by the tracking number.

• You can choose a combination of criteria for which you want to conduct a search. However, when selecting criteria, verify that they do not contradict each other. For example, you cannot select Active in the Message Status category and then select Closed Time in the Message Time category. If you attempt to use criteria that contradict each other as in the example above, the *Message Care* software will provide the Message Care Error Web page.

• The search function supports wild card characters. The supported wild card character is an asterisk (*).

The following table provides examples of using a wild card in your search criteria:

If the agent ID is...	Then the *Message Care* software will search on...
12345	The agent ID 12345 (exact match)
1234*	All agent IDs starting with 1234
1*5	All agent IDs starting with 1 and ending with 5
1234	All agent IDs containing 1234
*1234	All agent IDs ending with 1234

Should I conduct a search on all messages in the database?

Because searches are conducted on the same server that contains the Message Care Web pages, performance problems could occur when attempting a large search (for example, conducting a search on all messages in the database). If you attempt to conduct a large search, the *Message Care* software will alert you. When the *Message Care* software alerts you, you will be able to continue the search using your original search criteria or you can cancel the search and refine your criteria.

Can I use copy and paste commands?

You can use the Copy and Paste commands to enter text in all of the category search fields consisting of a text box.

Example of how to use the search capabilities

The best method for explaining how to use the search capability of the *Message Care* software is to provide an example that makes use of almost all of the search categories. For example, we want to find all automobile loan messages that were closed during the previous eight hours by agents whose IDs end in 45 and that have arrived at site 1002 in the loan application mailbox 601. The following information is a breakdown of the search criteria:

- Site Identifier = 1002

- Database = Current (depends on how often your call center archives messages)

- Agent ID = All agent IDs ending in 45

- Mailbox = 601-Loan Application (an administered mailbox)

- Message Status = Closed

- Subject = Automobile Loans

- Customer's Email Address = None

- Time Stamp = Closed during previous 8 hours

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Searching for a message   To find all messages meeting the criteria in the example above, you would do the following:

....

1   Click on the Search button to display the Message Search Web page.

....

2   Complete the form as shown below:

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....

3   Click on the Conduct Search button. The *Message Care* software searches for all messages meeting the specified criteria and displays the messages on the Search Results Web page. The following illustration is an example of a Search Results Web page:

....
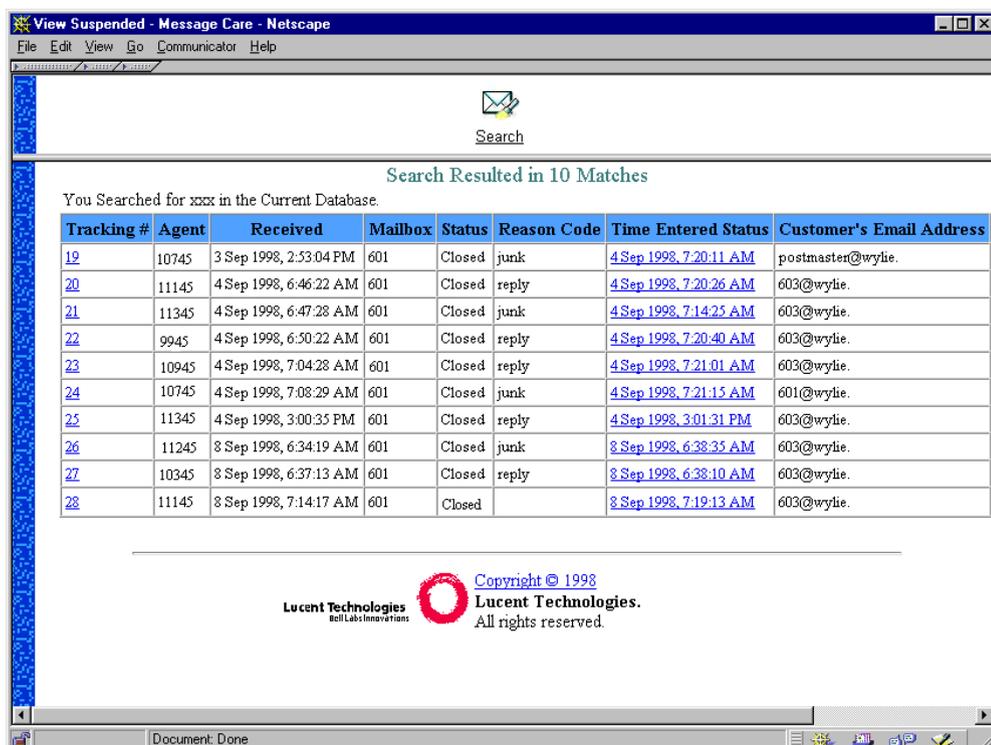
4   Click on the Tracking# link, the Time Entered in Status link, or the Subject link to view the message, or click on the Search option to refine your search. You cannot modify any message while in the view mode.

....

5   While viewing the message, you can retrieve the message for further processing by clicking on the Retrieve button. A Retrieve button will be available only if the status of the message is Launched, Suspended, Overflowed, Failed, or Blocked. See Message View Web page: page 6-49 for more information about viewing a message.

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Message History Web page

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Introduction   The Message History Web page appears when you click on the History button. The Message History Web page allows you to view a chronological record of message processing details. A message's history log displays the state and event changes a message has undergone along with the agent active during those state changes. A message can go through numerous events and agents during processing; therefore, having the history of a message can prove valuable in correctly processing the message.

The following table provides the history information that may be recorded for each message:

Message Event	Link to View Event	Information Recorded
Original Received	Yes	Date and Time
Acknowledgment Sent	No	Date and Time
Active	No	Active At: Agent ID Date and Time
Replied	Yes (Resend option is available.)	Replied By: Agent ID Replied To: email address Date and Time
Forwarded	Yes (Resend option is available.)	Forwarded By: Agent ID Forwarded To: email address

Date and Time |
| Suspended | No | Suspended By: Agent ID Reason for Suspending: Reason Code

Date and Time |
| Response Received | Yes | Received Date and Time |
| Closed | No | Closed By: Agent ID

Reason for Closing: Reason Code

Date and Time |
| Agent Notes | Agent Note text is viewable on the Message History Web page. | Note Composed By: Agent ID Date and Time

Note Text (cannot edit) |

....

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Illustration   The following illustration is an example of the Message History Web page:
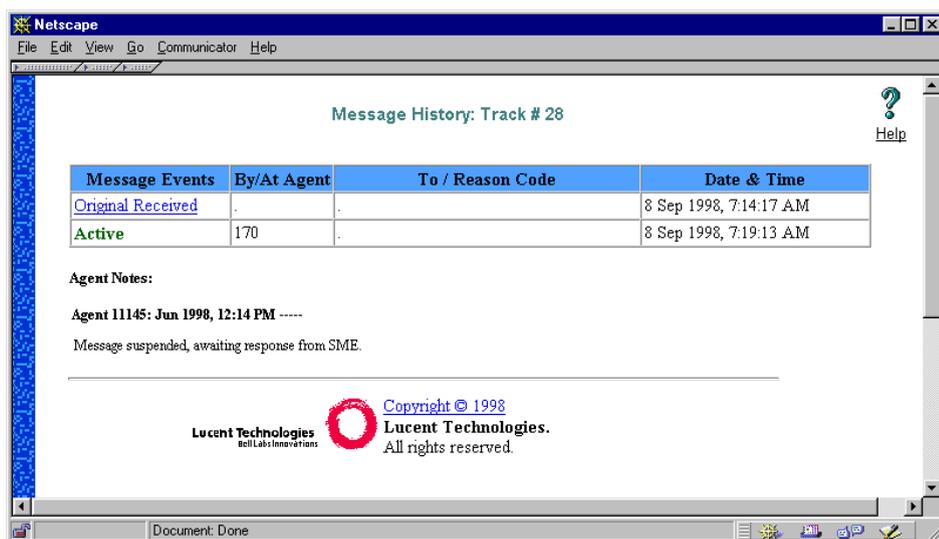
Things to know about the Message History Web page

The following subjects provides important information about the History Web page:

Can I view the history of a message while processing a message?

The Message History Web page uses a new browser window; therefore, you can view the history of a message while processing the message. If the History Web page does not appear when you click on the History option, check to see if the window is already open, but minimized.

What messages can I send from the History Web page?

You can resend any of the following outgoing message events by clicking on the underlined event and then clicking on the Resend button:

• Replied Message

• Forwarded Message

What tells me that a message was transferred?

In the History log of a message, an Active event followed immediately by another Active event indicates that the message was transferred.

Do I have to close the History window?

The Message History Web page remains open until you close it.

Viewing a message's history

To view the history of a message, do the following:

....

1 If you have not already done so, click on the History button. The Message History Web page appears populated with information about the message you are currently processing.

....

2 To resend a reply or forwarded message, click on either the Replied or Forwarded underlined text to display the message, and then click on the Resend button.

....

3 When you are finished viewing a message's history, close the Web page by clicking on the Close button in the title bar.

E N D O F S T E P S
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Viewing a message from the History Web page

To view the Original Received, Replied, Forwarded, or Response Received message from the History Web page, do the following:

....

1 After you have clicked on the History button and received the History Web page, click on either the Original Received, Replied, Forwarded, or Response Received link. The appropriate View Web page appears.

....

2 From the View Web page, you can do the following:

• Go back to the History page by clicking on the Prev button.

• Resend either the Replied or Forwarded message by clicking on the Resend button.

Message Care Note Web page

Introduction   The Message Care Note Web page allows you to enter information relative to message processing. Although agent notes are part of the message record, notes do not accompany outgoing replies. However, any agent viewing a message will also be able to view the notes associated with that message.

Illustration   The following illustration is an example of the Message Care Notes Web page:
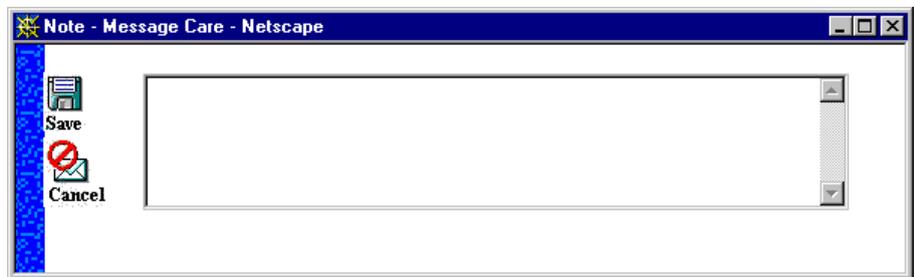
Things to know about agent notes   The following subjects provide important information about Note Web page:

Can I cancel the composition of my note?

You can cancel the composition of your note by clicking on the Cancel button in the Message Care Agent Note Web page. You will be presented with a message box asking if you are sure you want to cancel. Clicking on OK will close the Message Care Agent Note Web page without saving your note.

Do I have to manually save my note?

The *Message Care* software does not automatically save your notes. You must save your note prior to closing the Message Care Agent Notes Web page.

Do I have to manually close the Note Web page when I am done composing my note?

You must ensure that you close the Message Care Agent Note Web page whenever you are finished composing your note or whenever you close the message for which you are writing an note. *Message Care* will not automatically close the note Web page.

Do I have to enter carriage returns when composing my note?

You must enter carriage returns when entering notes.

How much text can I have in my note?

A note can reach approximately 30 Kilobytes (KB) of data.

Creating an agent note

To create an agent note, do the following:

....

1 If you have not already done so, click on the Note button. The Message Care Note Web page appears.

....

2 Enter your text in the text box. You can use the Copy and Paste commands to enter text.

....

3 When you are finished entering text, save your note by clicking on the Save button. The Message Care Note Web page closes.

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Message View Web page

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Introduction   The Message View Web page is used to view a message from the Search Result Web page and Real Time Snap-Shot Reports Results Web page.

The viewing capability allows you to view a message without being active on a message.

Why view a message?

Viewing a message is useful for:

•   Determining how a message was processed

•   Viewing similar messages to perhaps reuse replies sent to the consumer

•   Evaluating agent responses

Illustration   The following illustration is an example of a View Web page arrived at through the Search Results Web page:
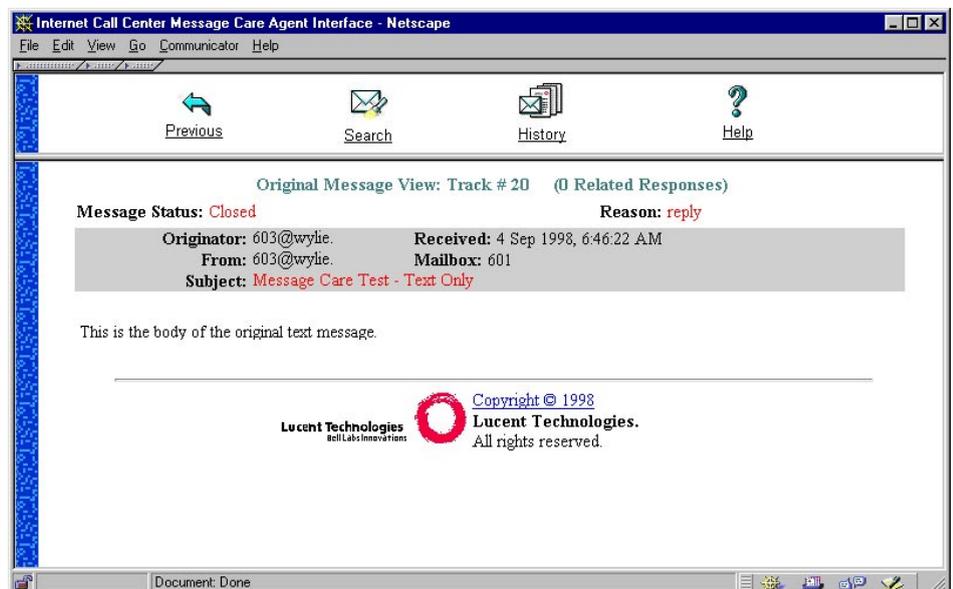
Search Results View Web page fields

The following table describes the fields found on the Search Results View Web page:

Fields	Description
Status	This field provides the status of the message (Blocked, Launched, Active, Suspended, Overflowed, Closed, or Failed).
Reason	This field provides the reason chosen when the message was suspended or closed.
Agent	This field provides the ID of the agent who worked on the message last.
Originator	This field identifies the name of the person who created the message.
From	This field identifies the email address of the originator. The *Message Care* software uses this email address to populate the To field in a reply message.
Subject	This field provides the subject of the message.
Attachments	This field represents the links that identify file attachments contained in the message. Based on your browser's functionality, you will either be prompted to open or save the attachment when you click on its link. To view file attachments, you must have associated helper applications. (Your call center must provide the appropriate helper applications based on the types of messages you expect to receive. For instance, if you process fax messages, you must have a helper application for viewing and handling faxes.) If you cannot view a file attachment, contact your system administrator.
	If the message does not have any attachments, then the Attachments field will not appear.
Received	This field provides the time and date the message was retrieved by the *Message Care* software.
Related Responses	This field identifies the number of related responses. Related responses include messages forwarded to other people (for example, an SME or an agent), and reply messages sent by the consumer. Use the History option to view related responses.
Mailbox	This field identifies the "friendly name," as administered in the *Message Care* software, for the mailbox that received the message.
Text Box area	This field provides the actual message from a consumer. If the text box area is blank, then the message is most likely a fax message, especially if there is a file attachment.

Illustration The following illustration is an example of a View Web page arrived at through the Real Time Snap-Shot Report Results Web page:
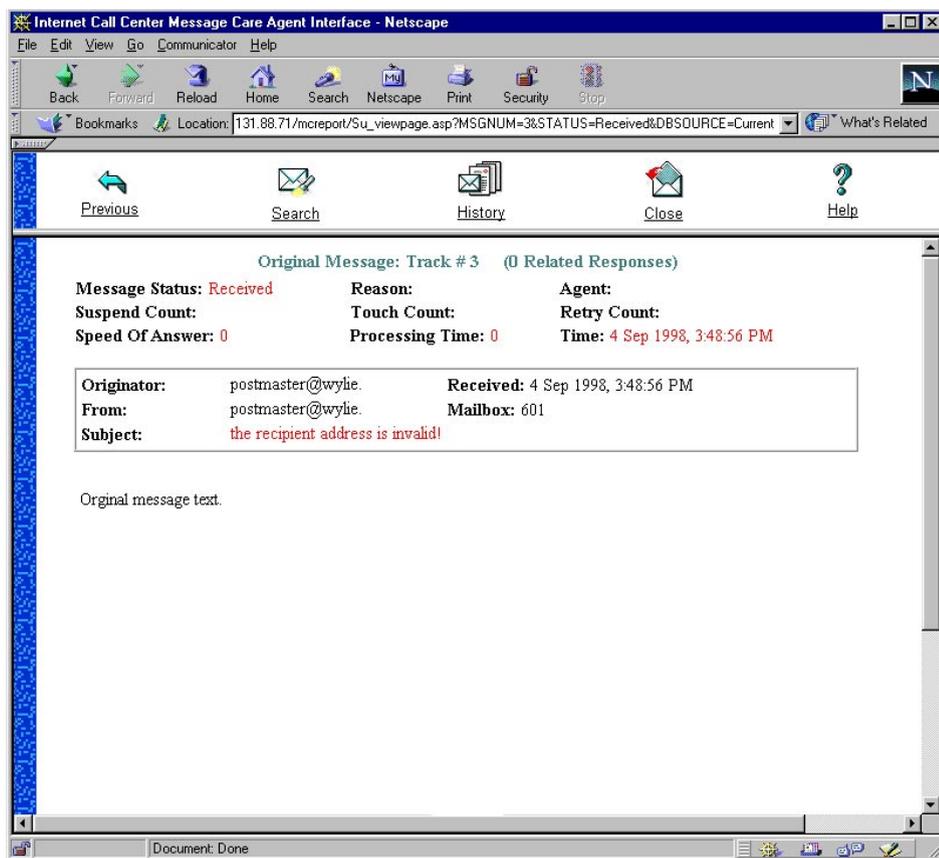
Snapshot Report Results View Web page fields The following table provides a description of the fields found on the Snapshot Report Results View Web page:

Fields	Description
Track #	This field provides the tracking # of original message.
Status	This field provides the status of the message (Blocked, Launched, Active, Suspended, Overflowed, Closed, or Failed).
Time	This field provides the time and the date the message entered the current status.
Agent	This field provides the ID of the agent who worked on the message last.
Reason	This field provides the reason chosen when the message was suspended or closed.
Speed of Answer	This field provides the interval between the time when the message was received to the time when the message was answered by an agent.
Processing Time	This field provides the total time the message was active while the message was being processed.

Fields	Description
Suspend Code	This field provides the number of times the message was suspended.
Touch Count	This field provides the number of times the message was active at an agent.
Retry Count	This field provides the number of call attempts that occurred while processing the message.
Originator	This field identifies the name of the person who created the message.
Received	This field provides the time and date the message was retrieved by *Message Care* software.
From	This field identifies the email address of the originator. The *Message Care* software uses this email address to populate the To field in a reply message.
Mailbox	This field identifies the "friendly name," as administered in the *Message Care* software, for the mailbox that received the message.
Subject	This field provides the subject of the message.
Attachments	This field represents the links that identify file attachments contained in the message. Based on your browser's functionality, you will either be prompted to open or save the attachment when you click on its link. To view file attachments, you must have associated helper applications. (Your call center must provide the appropriate helper applications based on the types of messages you expect to receive. For instance, if you process fax messages, you must have a helper application for viewing and handling faxes.) If you cannot view a file attachment, contact your system administrator.
	If the message does not have any attachments, then the Attachments field will not appear.
Related Responses	This field identifies the number of related responses. Related responses include replies sent to the consumer, messages forwarded to other people (for example, an SME or an agent), and messages sent by the consumer. Use the History option to view related responses.
Text Body area	This field provides the actual message from the consumer. If this area is blank, then the message is most likely a fax message (especially if there is a file attachment).

Things to know about viewing a message

The following subjects provides background information about the viewing capability in the *Message Care* software:

When can I view a message?

You can view a message regardless of the message's current state. And, you do not have to be the active agent on that message to view it.

Can I modify a message while I am viewing it?

Viewing a message is a read-only operation. While viewing a message, you cannot modify any information related to that message. To modify a message you are viewing, you must first retrieve it.

Does CMS gather statistics on a message that I am viewing?

When you view a message, Call Management System (CMS) statistics are not gathered on the time spent viewing the message.

Can I receive a new message while viewing an existing message?

While viewing a message, you are available to receive a new message call if you are in an available ACD state (Auto-In or Manual-In) on your voice terminal. If you do not wish to receive calls while viewing a message, make yourself unavailable to receive ACD calls by using your voice terminal to enter the Auxiliary work (AUX) or After Call Work (ACW) mode.

Viewing a message

To view a message from the Search Results Web page or the Snapshot Report Results Web page, do the following:

....

1 After you have conducted a search and received the Search Results Web page or generated a report and selected the mailbox for which you want to view Report Results, click on either the *Tracking #*, *Time Entered In Status*, or *Subject link* of the message you want to view. The Original Message View Web page appears.

....

2 From the Original Message View Web page you can do the following:

• Retrieve the message by clicking on the Retrieve button if available.

• View the history of the message by clicking on the History button.

• Go back to the Search Results Web page by clicking on the Back button.

• Conduct a new search by clicking on the Search button.

Retrieve Acknowledgment Web page

Introduction
You can retrieve a message in the Launched, Suspended, Blocked, Overflowed, and Failed states. The Retrieve option allows you to request a message call and become the active agent on a specific message so that you can process that message. When you click on the Retrieve button, the Retrieve Acknowledgment Web page appears in your browser stating that your message will be delivered to you as soon as possible.

Retrieved message calls appear as direct-agent message calls. If you log out of the *DEFINITY* ECS with direct-agent calls launched, the calls remain active until you log back in to the *DEFINITY* ECS (this is not a good use of *Message Care* facilities). To make good use of facilities, retrieve one message at a time, process the message to completion, and then retrieve another message.

Retrieve message process
When you click on the Retrieve button, the *Message Care* software will launch a call when facilities are available to deliver the requested message retrieval to you. The message call associated with your retrieval request may not be delivered to you immediately based on the traffic load of your system. You may even receive a different message call while waiting for your retrieval.

Once you receive and answer the message call associated with your retrieval, the New Message Display Web page appears in your browser with the message that you requested.

Things to know about retrieving a message
The following subjects provides important information about retrieving a message:

What happens when I retrieve a suspended message?
Retrieving a message in the suspended state cancels the suspension timer.

Can I retrieve a message while on a live ACD call?
You can request a retrieval of a message while on a live ACD call; however, you must complete the current ACD call before the *DEFINITY* ECS will deliver the retrieval message to you.

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How can I ensure that a message I retrieve comes directly to me?

If you want a retrieved message to go directly to you, then do the following:

1. Place yourself in the AUX or ACW work mode.

2. Retrieve the message.

    Since direct-agent calls are placed at the top of your *DEFINITY* ECS work queue, when you go into the AUX or ACW work mode, then the retrieved message will most likely be the next message call delivered to you assuming *Message Care* has facilities to launch the call.

    The above procedure is only true if your administrator has administered the Retrieve vector as recommended in .

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Send Acknowledgment Web page

Introduction Whenever you send a message (Forward or Reply), the *Message Care* software displays the Send Acknowledgment Web page to inform you that your message was sent.

Illustration The following illustration is an example of the Send Acknowledgment Web page:
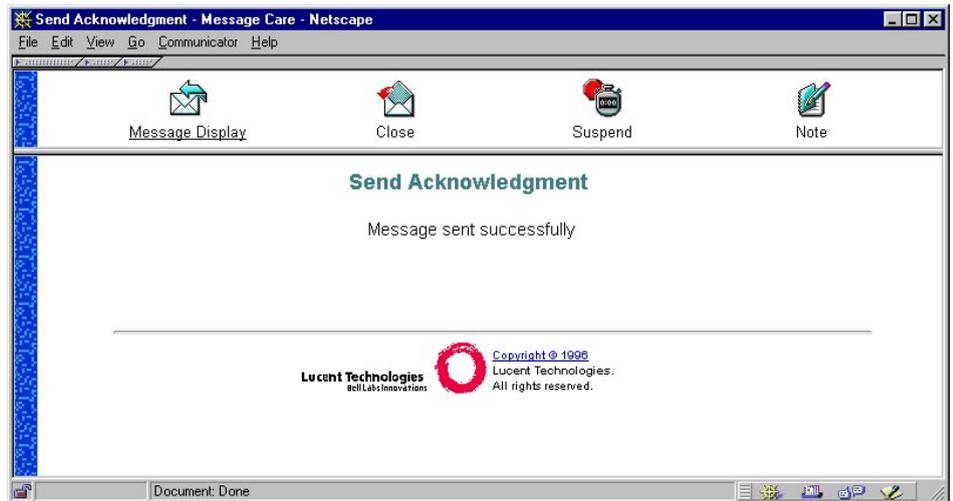
Resent Acknowledgment Web page

Introduction

As you are viewing a Forward or Reply message from the History Web page, you can resend that message by clicking on the Resend button. When you click on the Resend button, the Resent Acknowledgment Web page appears in your browser stating that the message was successfully submitted for delivery

Things to know about resending a message

The following list provides important information about resending a message:

• You cannot resend messages through the Snapshot Report Web pages.

• You do not have to be the active agent to resend a message; however, you must be logged in to the *Message Care* software to resend a message.

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Real Time Snap-Shot Report Web page

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Introduction

The Real Time Snap-Shot Report displays current open (that is, any message that does not have a status of Closed) message activity. This includes messages in the Overflowed and Suspended state, thus providing a more complete picture of message activity than is possible through CMS statistics. Unlike other *Message Care* reports, the Real Time Snap-Shot Report is not password-protected.

Purpose of the Real Time Snap-Shot Report

The purpose of a Real Time Snap-Shot Report is to provide you with current information on open message activity. This type of information can be useful to you when allocating resources to non-message call activities (for example, real-time calls, breaks, or administrative work).

Things to know about Real Time Snap-Shot Reports

The following subjects provides important information about Real Time Snap-Shot Reports:

Can I get information about closed messages?

Since the Snap-Shot report is a view of current open message activity, it will not report on any closed messages.

How current is the data in a Snap-shot report?

Because the Real Time Snap-Shot Report is based on current data, a drill-down request of the information presented may require that you request a refresh of the data.

For example, if you requested a Snap-Shot Report for all mailboxes at 11:00 and then at 11:15 drilled down to the message activity for a specific mailbox, the data in the report at 11:00 would no longer be current. To obtain the most current data, you would have to generate a new report using the same criteria and then immediately drill down to the information of interest.

During the time you request a Real Time Snap-Shot Report, the values that are generated (Overflowed, Launched, Active, Suspended) may not accurately represent the current value of all Open messages. This is because, during the time that the *Message Care* software generated the report, agents continued to process messages and message states could have moved from Overflowed to Launched or from Active to Suspended.

Can I retrieve or view message identified though a Snap-shot report?

You can retrieve or view messages identified through a Real Time Snap-Shot Report.

Can I select multiple mailboxes as my criteria for a Snap-shot report?

When requesting a Real Time Snap-Shot Report, you must select either one, all, or multiple mailboxes as your criteria.

Can I print a Snap-shot report?

You can print the Real Time Snap-Shot Report by using your browser's Print functionality. To view the entire report, use the Landscape option.

Can I save a Snap-shot report?

You can save the Real Time Snap-Shot Report in an HTML file by using your browser's Save function.

Is there an unfavorable time to generate a Snap-shot report?

Because Real Time Snap-Shot Reports are generated on the same server that contains the *Message Care* Web pages, performance problems could occur if you attempt to generate a snap-shot report during heavy message call traffic.

Illustrations   The following illustration is an example of the Real Time Snap-Shot Report for all Message Care monitored mailboxes:

The following illustration is an example of drilling down to information for a specific mailbox from the Real Time Snap-Shot Report (in this example, a drill down to the Intuity mailbox was conducted):

Generating a Real Time Snap-Shot Report

To generate a Real Time Snap-Shot Report, do the following:

....

1 From the Message Care Home Page, click on the Snap-Shot Report button. The Select Criteria for the Real Time Snap-Shot Report Web page appears.

....

2 From the Mailbox drop-down list, select one, multiple, or all mailboxes for which you want to generate a report.

....

3 Click on the Generate Report button. The Real Time Snap-Shot Report Web page appears with current mailbox data.

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4   To display message-level data in a specific mailbox, click on a link for that specific mailbox. The Report Results Web page appears with a listing of all open messages in that mailbox.

....

5   To view a specific message in the list of messages on the Report Results Web page, click on a link for that specific message. The Original Message View Web page for that message appears.

....

6   From the Original Message View Web page, you can do the following:

•   Display the History for the message

•   Retrieve the message

•   Close the message

•   Return to the Reports Menu

Close Message Web page

Introduction   The Close Message Web page is used to close a message. You would use the Close option when you have determined that all message processing is complete. When you close a message, the message calls drops, CMS tracking of the message is terminated, and you may be available (based on your ACD state in the *DEFINITY* ECS) to take new calls.

Illustration   The following illustration is an example of the Close Message Web page:
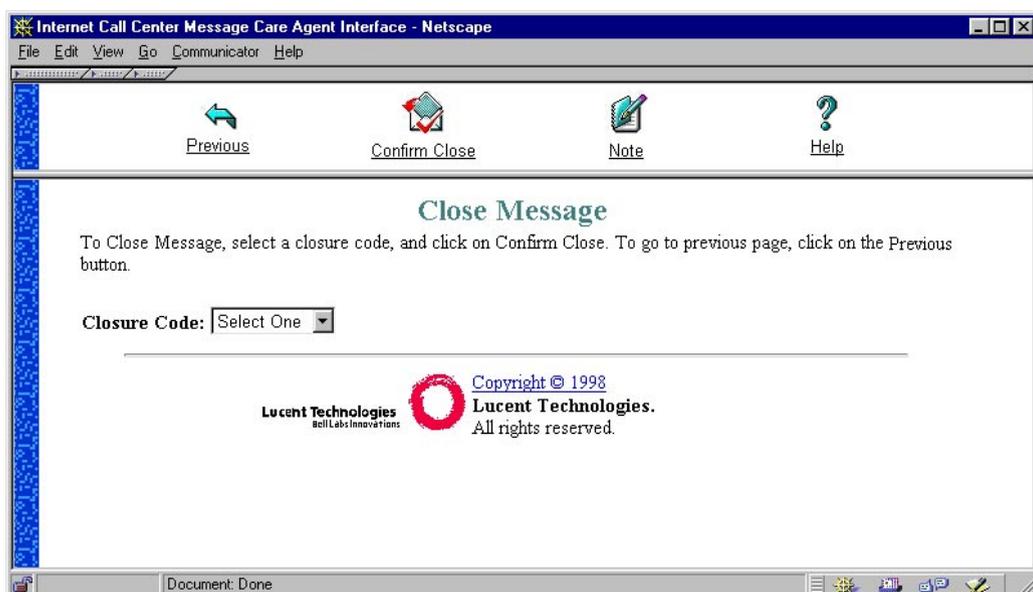
The Close Message Web page contains only one field: Closure Code. The Closure Code is a drop-down list containing reasons (reason codes) why you are closing a message. Your call center uses reason codes to measure operating efficiency. Selecting a reason code is mandatory.

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What happens when I close a message?

When the *Message Care* software receives a request to close a message, it checks for any message response that was received while you were processing the message. If a response was received, the *Message Care* software informs you of the response and allows you to cancel the message closure.

When you close a message, the *Message Care* software sets the status to Closed, records the time you closed the message, records your agent ID, and records the reason code.

When you close a message, the *Message Care* software drops the message call associated with the active message and all CMS tracking for that message call ends.

Once a message is closed, it cannot be reopened.

Close a message

To close a message, do the following:

....

1 If you have not already done so, click on the Close button. The Close Message Web page appears.

....

2 From the Closure Code drop-down list, click on a reason code that best describes why you are closing the message.

....

3 If you want to create a note, click on the Note button and then compose your note; otherwise, go to Step 4.

....

4 Click on the Confirm Close button to close the message. The *Message Care* software releases the call and the Message Care Home Page (or the administered idle page) appears. You are now available to receive a new message call.

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Handling undeliverable messages and notifications

Overview

Purpose There are instances when a reply or a forward message may not be delivered to the recipient. When a message cannot be delivered, the SMTP server sends an undeliverable message notification to the From address of that message. The undeliverable message notification may then be delivered to a *Message Care* monitored mailbox.

The following list provides explanations as to why a message may not be delivered:

- The message recipient's mail server is not operating properly.

- The message recipient address is incorrect.

The undeliverable notification is a new message (that is, it has a unique tracking number); however, the reply or forward message tracking number is contained in the body of the undeliverable notification. By using the reply or forward message tracking number, the agent who received the undeliverable notification can then search for the reply or forward message that could not be delivered and attempt to redeliver the message.

Contents The following section contains information about processing undeliverable messages and notifications.

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Undeliverable messages

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Processing undeliverable messages and notifications

Let us consider the following scenarios to understand how to process undeliverable messages and notifications. All scenarios apply to forwarded messages also.

Scenario one—original message closed

Agent 789 receives an original message (message A), sends a Reply (message B) to the consumer, and then closes the original message (message A). The reply (message B) cannot be delivered due to one of the reasons stated earlier; therefore, the SMTP server creates an undeliverable notification (message C) and delivers message C to Agent 123.

Agent 123 does one of the following:

• Uses the Resend option

• Corrects the Destination Address

Use the Resend option

If the reply (message B) was not delivered because the recipient's server was not operational at the time that agent 789 sent the Reply, Agent 123 will have to do the following:

1. Search the database for the original message (message A) by using the original message tracking number as the search criteria. The Original Message View Web page appears for message A.

2. Click on the History button. The History Web page for message A appears.

3. Click on the Reply (message B) link. The Reply appears.

4. Click the Resend button.

5. Close the undeliverable notification (message C) with a note indicating that the reply (message B) was resent.

Correct Destination Address

If the reply (message B) was not delivered because the recipient's address was incorrect, do the following:

1. Search the database for the original message (message A) by using the original message tracking number as the search criteria. The Original Message View Web page appears for message A.

2. Click on the History button. The History Web page for message A appears.

3. Click on the Reply (message B) link. The Reply appears.

4. Copy the Reply text (message B).

5. Paste the Reply text from message B into the Reply screen for message C (undeliverable notification).

6. Make the correction to the consumer's email address.

7. Send the Reply.

8. Close the view of message A.

9. Close message C.

Scenario two—original message active

Agent 789 receives an original message (message A), sends a Reply (message B) to the consumer, and remains the active agent for the original message (message A). The reply cannot be delivered due to one of the reasons stated earlier; therefore, the SMTP server creates an undeliverable notification (message C) and delivers message C to Agent 123.

Agent 123 does one of the following:

• Processes the undeliverable notification that was caused by the recipient's mail server being down

• Processes the undeliverable notification that was caused by the recipient's address being incorrect

Recipient's mail server was not operational

If the reply (message B) was not delivered because the recipient's server was not operational at the time the agent sent the reply (message B), do the following:

1. Call agent 789 to inform the agent of the need to resend the reply (message B).

2. Close the undeliverable notification (message C) with a note indicating that the reply (message B) was resent by the original agent (agent 789).

Recipient's address was incorrect

If the reply (message B) was not delivered because the recipient's address was incorrect, specific tasks Agent 123 must perform specific tasks.

1. Call agent 789 to inform the agent of the need to modify the address and resend the reply (message B).

2. Close the undeliverable notification (message C) with a note indicating that the reply (message B) was resent by the original agent (agent 789).

Scenario three—original message suspended

Agent 789 receives an original message (message A), sends a Reply (message B) to the consumer, and suspends the original message (message A). The reply (message B) cannot be delivered due to one of the reasons stated earlier; therefore, the SMTP server creates an undeliverable notification (message C) and delivers message C to Agent 123.

Agent 123 does one of the following:

• Uses the Resend option

• Processes the undeliverable notification that was caused by the recipient's address being incorrect

Use the Resend option

If the reply (message B) was not delivered because the recipient's server was not operational at the time that agent 789 sent the Reply, Agent 123 will have to perform specific tasks.

1. Search the database for the original message (message A) by using the original message tracking number as the search criteria. The Original Message View Web page appears for message A.

2. Click on the Retrieve button. The New Message Display Web page for message A appears.

3. Click on the Reply (message B) link. The Reply appears.

4. Click the Resend button.

5. Close the undeliverable notification (message C) with a note indicating that the reply (message B) was resent.

Recipient's address was incorrect

If the reply (message B) was not delivered because the recipient's address was incorrect, Agent 123 must perform the following tasks:

1. Search the database for the original message (message A) by using the original message tracking number as the search criteria. The Original Message View Web page appears for message A.

2. Click on the Retrieve button. The New Message Display Web page for message A appears.

3. Click on the Reply (message B) link. The Reply appears.

4. Copy the Reply text (message B).

5. Paste the Reply text from message B into the Reply screen for message C (undeliverable notification).

6. Make the correction to the consumer's email address.

7. Using the Note option, document information about the address correction.

8. Send the Reply.

9. Suspend message A.

10. Close message C with a reason code.

11. Make a call to agent 789 to inform the agent that the reply (message B) had to be resent due to an incorrect email address.

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7   Reports

Overview

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Purpose   The purpose of this section is to discuss the reporting capabilities of the
CentreVu Internet Solution.

Contents   The following items are discussed:

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Audience   This information is intended for installers, system administrators, call
center supervisors, or anyone else involved in connecting, installing,
administering hardware or software, setting up reports, or maintaining
database items for the *CentreVu* Internet Solution.

References   The following documents include additional information about
CentreVu CMS or Supervisor:

- *CentreVu* Call Management Systems documenation

- *CentreVu Report Designer Version 6 User Guide (585-215-859)*

- *CentreVuCMS R3V5 Real-Time and Historical Reports (585-215-821)*

- *CentreVu CMS Version 6 Reports (585-215-851)*

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Background information

Overview

Purpose   The purpose of the background information is to provide you with information about the reporting capabilities of the *CentreVu* Internet Solution as well as the reporting capabilities of *CentreVu* CMS and Supervisor.

Contents   The following areas are discussed:

- Reporting software: page 7-3
- Message Care software: page 7-4
- Terminology differences: page 7-6

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Reporting software

Introduction   Reports for the *CentreVu* Internet Solution are produced through the following:

- *Message Care* software—gathers statistics regarding the specifics of end-to-end message (email and fax) processing.

- *CentreVu* CMS and Supervisor—gathers statistics regarding call-traffic data.

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Message Care software

Overview

The *Message Care* software provides several reports that focus specifically on end-to-end information about messages routed through the *Message Care* software. These reports draw their information from the database that logs and stores all information recorded during each step in processing a message.

How message tracking works

Message tracking occurs through an Open Database Connectivity (ODBC) database that stores received messages, outbound consumer replies, received information from Subject Matter Experts (SMEs), plus selected header and status information on each message. The report output is created from Common Gateway Interface (CGI) scripts. This provides the call center with data for historical as well as comparative evaluation.

CMS can be used to collect statistics for message-based calls, thus providing reports on the number of message calls handled, processing time for a message, and the relative efficiency of various types of consumer contact.

Message Care provides end-to-end tracking of the message process including the following message status states:

- Overflowed
- Launched
- Active
- Suspended
- Closed
- Failed
- Blocked

Message processing statistic—CMS versus *Message Care*

Reports track new or original messages. Therefore, values such as average speed of answer reference the time an original message was retrieved and first delivered to an agent. *Message Care* does not report on subsequent delivery times of responses from SMEs or the time spent queuing prior to launching a call when a suspension timer expires. In general, CMS reports display statistics regarding agent work time and message call volumes; and *Message Care* reports display statistics regarding the specifics of end-to-end message processing, including capturing details on how agents perform.

CMS reports display the following statistics:

•   Total ACD talk time spent processing message calls per skill

•   The amount of calls answered by an agent.

•   If vectors have been designed to limit the calls queued per skill, CMS reports will display how many times a vector dropped a message call.

Message Care reports display the following statistics:

•   Total agent work time for a specific message call; even if that message call was touched by multiple agents, *Message Care* will track the total work time for all of the agents.

•   Delivery time to an agent

•   Total message processing time

•   Message service objectives, including delivery, processing, and time to close.

The statistics in your CMS reports may differ from the same statistics in your *Message Care* reports. This can happen for several reasons:

•   CMS begins tracking only at the point where a call enters the *DEFINITY* ECS queue. Thus there is no CMS information on the time that messages spend in the Overflowed state.

•   CMS stops tracking when the call ends. Thus there is no CMS information on the time while messages are Suspended or when message calls are queued for delivery within *Message Care*.

•   The *Message Care* software may initiate multiple calls in the handling of a message. For example, once a message call is suspended, *Message Care* launches a new call each time it goes into the queue again. *Message Care* statistics tie all of these calls together and report on them under the same original email message. Thus the CMS count of calls can differ from the number of messages actually handled.

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Terminology differences

CMS and *CentreVu* Internet Solution terminology overlap

The following table documents cases where the terminology used by CMS and *Message Care* overlap.

Terminology	When used by CMS	When used by *Message Care*
ASA – average speed of answer	Refers to the time from when a message call was launched and when it was answered by an agent. CMS will also track the ASA for retrieved, response and returning suspended messages. *Message Care* will not.	The *Message Care* value will always be greater then the CMS value. The difference may be in seconds for a system with no capacity issues and ASA values of less then eight hours.
Reason Codes	Values entered by agents when completing a call. Multiple calls may be required to service a message and, therefore, CMS may track multiple reason codes for a single message.	Values entered by agents when closing or suspending a message.

Message Care Reports

Overview

Purpose   The purpose of this section is to provide information about *Message Care* reports.

Contents   The following areas provide information about *Message Care* reports:

Audience   This information is intended for system administrators, call center supervisors, or anyone involved in setting up reports or maintaining database items.

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Introduction to *Message Care* reports

Types of reports *Message Care* reports support both agents and supervisors, and include three types of reports:

- Real Time
- Historical (non-real-time based on closed messages)
- Interval (non-real time that may also include open messages)

Available reports The *Message Care* reports are:

- Objective Report
- Closure Code Report
- Mailbox Report
- Real Time Snap-Shot Report
- Message Arrived Daily Report
- Message Arrived Monthly Report
- Agent Correspondence Report

Writing your own *Message Care* reports *Message Care* is not designed to allow customizing of reports and, therefore, you are not expected to modify the standard reports provided with *Message Care*.

If you have different reporting needs, you may elect to write your own reports, using the schema published by Lucent Technologies.

With the exception of agent processing times, all report time values are truncated to minute granularity. If you need a more granular report, you should use the data stored directly and write your own report.

Drill down to single message You can drill down from a message search or report result listing of multiple messages to a single message through the message tracking number.

For an example of drilling down to information for a specific mailbox, see .

Report options The following options appear on every report you generate:

- Previous
- Reports Menu
- Help

Access *Message Care* reports   Reports can only be accessed through a bookmark supplied by your administrator. This bookmark will take you to the Message Care Report and Message Search page.

Illustration   The following illustration displays an example of the Message Care Report and Search page:

Save reports to a file   You can save any *Message Care*-provided report to a file.

This capability may be provided by using functionality provided in your browser.

Print reports   You can print a *Message Care*-provided report. When setting your print options, your print orientation should always be set to landscape.

This capability may be provided by using functionality provided in your browser.

Things to know about generating reports   The following list provides useful information about generating reports:

- When generating a report, you cannot choose ALL mailboxes and then specify specific mailboxes. You must either select ALL mailboxes or a set of specific mailboxes.

- When generating the mailbox report, counts of messages in the Blocked or Failed state for a particular mailbox are only shown if there is at least one Closed message for the mailbox.

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Objective Report

Description	The Objective Report compares performance on *Message Care* messages with performance objectives you specify, for the mailbox(es) and the time period you request. You can specify objectives for average speed of answer, average processing time, and average close time. This report measures performance on a message-by-message basis, regardless of the number of calls involved in handling each message.
Goal of the Objective Report	The goals of the objective report are to allow a system administrator to specify a performance objective and to determine how well this objective was met. Using the *Message Care-* provided drill downs, you can view the set of messages that did not meet your objectives.
Objectives you can specify	An objective report may be requested for messages closed within the customer-specified interval.

You must specify at least one and may specify up to three of the following objectives: |

- Average Speed of Answer
- Average Time to Close
- Average Processing Time

Wildcards are not supported.

Illustration The following displays an example of an Objectives Report:
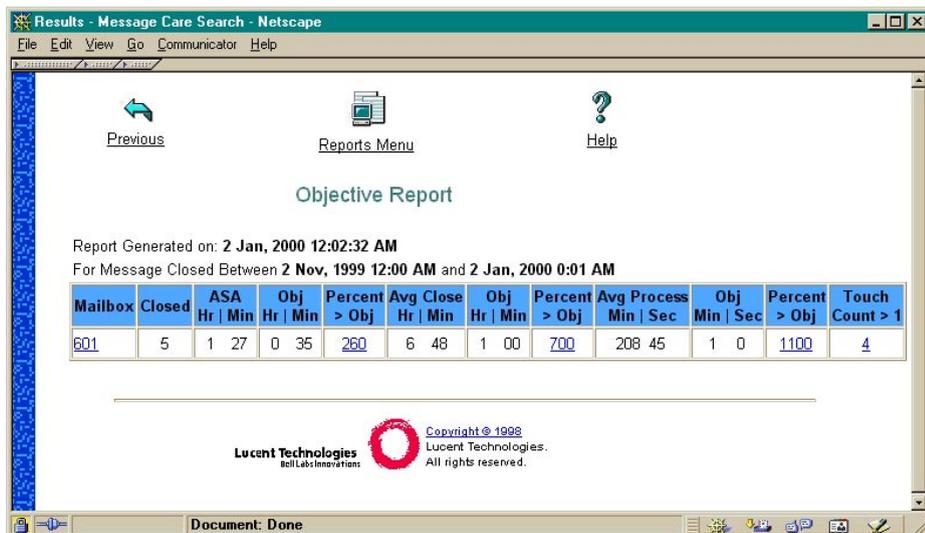
Generate an Objective Report

To obtain an Objective Report, do the following:

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1   From the Message Care Report and Search page, click the Objective
Report link. This brings up the Select Criteria for Objective Report page.

....

2   Select specific mailboxes or all mail boxes, define a between period
between two dates and times (both hour and minutes/seconds) in which
the messages were closed, and select a Performance Objective.

You can select one or more of the following Performance Objectives:

•   Average Speed of Answer

•   Average Time to Close

•   Average Processing Time

....

3   Click on the Generate Report button to view the report. For all reports,
on each Select Criteria page, the Generate Report button appears at the
top.

E N D   O F   S T E P S
....

Objective Report options

The following options are available after you click on the Generate
Report button:

•   Previous

•   Reports Menu

•   Help

Previous returns you to the previous screen. Reports Menu returns you
to the main Message Care Reports Menu page.

Result categories on the Objective Report

The report result categories are listed as follows:

•   Mailbox—a mailbox monitored by *Message Care* used to collect
messages which need to be serviced by an agent. Messages in this
mailbox are received either from consumers or as replies to
messages forwarded by agents.

- Closed—a status which indicates that no additional processing by an agent is required. All closed messages require a closure code.

- Avg Speed of Answer Hr|Min—the average value from detection time to delivery time. This is limited to delivery of original message calls.

- Obj Hr|Min—the customer-specified objective.

- Percent > Obj—the percentage of the customer-specified objective that was not met.

- Avg Process Time Hr|Min—the sum of all agent work time for a selected message. For example, if the touch count = 1, the message was closed by the first agent.

- Obj Hr|Min—the customer-specified objective.

- Percent > Obj—the percentage of the customer-specified objective that was not met.

- Avg. Close Time Hr|Min—the average time it took for an original message to be retrieved off of the mail server and marked closed by an agent.

- Obj Hr|Min—The customer-specified objective.

- Percent > Obj—the percentage of the customer-specified objective that was not met.

- Touch Count >1—the number of messages which were active at more that one agent or SME.

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Closure Code Report

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Description   The Closure Code Report allows a system administration to compare code count, average speed of answer, average process time, average close time, and touch count for messages closed with different closure codes. Since messages may be routed differently, based on keyword searches of the message subject, delivery times may vary.

Closure codes apply only to the closed message state. When agents close a message, they assign a reason for doing so, selecting the reason from a list of codes you administer. The Closure Code Report shows how often each reason code gets used, for the mailbox(es) and the time period you request.

A closure code report may be requested for messages closed within a customer-specified time interval.

For each requested mailbox, *Message Care* will search for all unique closure codes and generate a report listing the number of occurrences for each found closure code for the specified mailbox.

Illustration   The following illustration displays a sample Closure Code Report:

Generate a Closure Code Report   To obtain a Closure Code Report, do the following:

....

1   From the Message Care Report and Search page, click the Closure Code Report link. This brings up the Select Criteria for Closure Code Report page.

....

....

2   Select specific mailboxes or all mail boxes and define a between period (between two dates and times) in which the messages were closed.

....

3   Click on the Generate Report button to view the report.

E N D   O F   S T E P S
....

**Result categories on the
Closure Code Report**

The following report result categories appear on the Closure Code Report:

- Mailbox—a mailbox monitored by Message Care used to collect messages which need to be serviced by an agent. Messages in this mailbox originate from either direct correspondence from a consumer or replies to inquiries from SMEs within the call center. Any messages arriving in a mailbox are delivered to the agent through a DAC, thus collecting CMS statistics.

- Closure Code—customer-defined, reason codes entered by an agent when closing a message.

- Code Count—the number of times messages were marked closed for a given closure code.

- Avg Speed of Answer Hr|Min—the average value from detection time to delivery time. This is limited to delivery of original message calls.

- Avg Process Time Hr|Min—the average of all agent work time for a set of messages with the same closure code.

- Avg. Close Time Min|Sec—the average time it took for an original message to be retrieved off of the mail server and marked closed by an agent.

- Touch Count >1—the number of messages which were active at more that one agent or SME.

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Mailbox Report

Description The Mailbox Report shows the workload conditions for specified *Message Care* mailbox(es) during the time period you request. It includes data on messages with Overflowed status, including the amount of time they remain in that condition.

A mailbox report may be requested for messages closed within a customer-specified time interval.

Illustration The following illustration displays a sample Mailbox Report:

Generate a Mailbox Report To obtain a Mailbox Report, do the following:

1 From the Message Care Report and Search page, click the Mailbox Report link. This brings up the Select Criteria for Mail Box Report page.

2 Select specific mailboxes or all mail boxes and define a period (between two dates and times) in which the messages were closed.

3 Click on the Generate Report button to view the report.

E N D   O F   S T E P S

Result categories on the Mailbox Report

The following report result categories appear on the Mailbox Report:

- Mailbox—a mailbox monitored by *Message Care* used to collect messages which need to be serviced by an agent. Messages in this mailbox originate from either direct correspondence from a consumer or replies to inquiries from SMEs within the call center. Messages arriving in a mailbox are delivered to the agent through a DAC, thus collecting CMS statistics.

- Closed—a status which indicates that no additional processing by an agent is required. All closed messages require a closure code.

- Avg Speed of Answer Hr|Min—the average value from detection time to delivery time. This is limited to delivery of original message calls.

- Avg Process Time Hr|Min—the sum of all agent work time for a selected message. For example, if the touch count = 1, the message was closed by the first agent.

- Avg. Close Time Hr|Min—the average time it took for an original message to be retrieved off of the mail server and marked closed by an agent.

- Touch Count >1—the number of messages which were active at more that one agent or SME.

- Retry Count—the number of call attempts required to deliver a message to an agent. Call attempts include the first time a message was delivered, expiration of suspension timers, agent retrieval requests, and delivery of message responses. The Retry Count also counts the number of times a call was dropped by *DEFINITY* ECS vector programming.

- Suspend Count—the number of times any message was in the suspended state.

- Blocked Count—the number of message in the blocked state.

- Failed Count—the number of message in the failed state.

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Tips for interpreting Mailbox Reports

The goals of the mailbox report are to allow a system administrator to understand the workload offered by each mailbox and to identify any potential capacity constraints in the system. The following guidelines are offered to help understand how such report information may be used.

If the Retry Count is large, you should look at why calls are being dropped. Possible causes include vectors limiting the number of calls queued for a certain agent skill or a lack of resources to launch the call.

The difference in the value of closed messages and those messages with a TouchCount > 1, is the number of messages closed by the agent who first received the work. A large value in TouchCount > 1 indicates that the message goes through multiple active states. This may result from a message returning from a suspended state or transfers of the message call.

A large Suspend Count indicates that agents either have to suspend message processing to await a response from an SME or are suspending message processing to perform other work, for example, to service voice calls.

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Messages Arrived Daily Report

Description The Messages Arrived Daily Report displays the arrival rate for all messages that arrived on a particular date for specified mailboxes. The results are displayed by hour in a 24-hour time frame; 1–12 AM and 1–12 PM.

Illustration The following illustration displays a sample Messages Arrived Daily Report:

Generate a Messages Arrived Daily Report To obtain a Messages Arrived Daily Report, do the following:

1 From the Message Care Report and Search page, click the Messages Arrived Daily Report link. This brings up the Select Criteria for Messages Arrived Daily Report page.

2 Select specific mailboxes or all mail boxes and specify a date in which the messages arrived (day, month, and year).

....

3   Click on the Generate Report button to view the report.

E N D   O F   S T E P S
....

Result categories on the   The following report result categories appear on the Messages Arrived
Messages Arrived Daily   Daily Report:
Report

•   Mailbox—a mailbox monitored by *Message Care* used to collect
     messages which need to be serviced by an agent. Messages in this
     mailbox originate from either direct correspondence from a
     consumer or replies to inquiries from SMEs within the call center.

•   Hours

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Messages Arrived Monthly Report

Description   The Messages Arrived Monthly Report displays the arrival rate for all messages that arrived during a particular month for specified mailboxes. The results are displayed by day for each day of the month.

Illustration   The following illustration displays a sample Messages Arrived Monthly Report:

Generate a Messages Arrived Monthly Report   To obtain a Messages Arrived Monthly Report, do the following:

1   From the Message Care Report and Search page, click the Message Arrived Monthly Report link. This brings up the Select Criteria for Message Arrived Monthly Report page.

2   Select specific mailboxes or all mail boxes, and specify a month and year in which the messages arrived.

3   Click on the Generate Report button to view the report.

E N D   O F   S T E P S

Result categories on the Messages Arrived Monthly Report

The following report result categories appear on the Messages Arrived Monthly Report:

• Mailbox—a mailbox monitored by *Message Care* used to collect messages which need to be serviced by an agent. Messages in this mailbox originate from either direct correspondence from a consumer or replies to inquiries from SMEs within the call center.

• Day.

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Agents Correspondence Report

Description   The Agents Correspondence Report displays a listing of all outbound messages created by a given agent. A log entry is created as soon as the agent either replies directly to a consumer or forwards a message to an SME. The Agents Correspondence Report is an effective tool for supervisors to measure the quality of an agent's work.

Illustration   The following illustration displays a sample Agents Correspondence Report:

Generate an Agents Correspondence Report   To obtain a Agents Correspondence Report, do the following:

1   From the Message Care Report and Search page, click the Agent Correspondence Report link. This brings up the Enter Criteria for Agent Correspondence Report page.

2   Enter an Agent ID and define a period (between two dates and times) in which the messages were sent.

3   Click on the Generate Report button to view the report.

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Result categories on the Agents Correspondence Report

The following report result categories appear on the Agent Correspondence Report:

- Tracking #

- Sent Time

- Message

- Destination Email Address

- Subject

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Real Time Snap-Shot Report

Description　　The Real Time Snap-Shot Report displays current open message activity. In addition, Real Time Snap-Shot Reports include messages in the Overflow and Suspended state, thus providing a more complete picture of message activity than is possible through CMS statistics. Unlike other *Message Care* reports, the Real Time Snap-Shot Report is not password-protected.

The Real Time Snap-Shot Report is useful to agents when allocating resources to non-message call activities (for example, real-time calls, breaks, or administrative work).

For detailed information about the Real Time Snap-Shot Report, see Real Time Snap-Shot Report Web page: page 6-58.

Illustration—Real Time Snap-Shot Report　　The following illustration is an example of the Real Time Snap-Shot Report for all Message Care monitored mailboxes:

Illustration—Real Time Snap-Shot Report for a specific mailbox

The following illustration is an example of drilling down to information for a specific mailbox from the Real Time Snap-Shot Report (in this example, a drill down to the Intuity mailbox was conducted):

Supervisory search

Introduction You can conduct a message search through the Message Care Report and Search Web page.

Illustration The following illustration displays an example of the Message Care Report and Search Web page:

Supervisory search options The following table provides descriptions of the search options contained in the Message Search Web page for a search:

Field	Description
Tracking Number	Use this search category when you want to search on a message's tracking number. For example, you may want to search for all messages with a site identifier of 1002. The Tracking Number category provides two text boxes. The first text box is used to enter a message's tracking number which can be populated with digits and wild cards of up to eight characters. The second text box is used to enter the site identifier which can be populated with digits and wild cards of up to four characters. The default for the first text box is no value and the default for the second text box is the site identifier administered for your system.
Database	Use this search category to identify the database for which you want to conduct your search. You must select either the Current or Archive option. The default is Current. As the Current database reaches its size limit, your system administrator will move closed messages to the Archive database.

Field	Description
Agent ID	Use this search category when you want to search on messages that have been or are still being processed by a specific agent or agents. For example, you may want to search for all messages that have been processed by Agent 12345. The Agent ID text box can be populated with digits and wild cards of up to 12 characters. The default is no value.
Mail Box	Use this search category when you want to search for a message(s) that arrived in a specific mailbox. For example, you may want to search for all messages that were sent to your Technical Support mailbox. The default is Any.
Message Status	Use this search category when you want to search for messages with a specific status. For example, you may want to search for all messages in the Failed state. The default is Any.
Subject	Use this search category when you want to search for messages containing specific text in the subject field. For example, you may want to find all messages regarding a specific product. The Subject text box can be populated with up to 128 alphanumeric characters (including wildcards). However, after 40 characters the text scrolls to the right. The default is no value.
Customer's Email Address	Use this search category when you want to search for messages from a specific email address. For example, you may want to find all messages that have come from *customer@company.com*. The Customer's Email Address text box can be populated with up to 128 alphanumeric characters (including wildcards). However, after 40 characters the text scrolls to the right. The default is no value.
Time Stamp	Use this search category when you want to limit the search for the time and date messages were either received or closed. For example, you may want to find all messages that were closed between 06/01/98 at 11:00 am and 06/05/98 at 04:00 pm. Or, you may want to search on all messages that were received between 06/01/98 at 11:00 am and 06/05/98 at 04:00 pm. You can use wildcards in any editable field in the Message Time category. The default is Any Time. Any Time refers to all messages received or closed regardless of the date and time.

Conduct a supervisory search

To conduct a message search, do the following:

1 From the Message Care Report and Search page, click the Search link. The Message Search Web page appears.

2   Fill in any combination of the following search criteria: tracking
number, database (current or archive), Agent ID, Mail Box, Message
Status, Subject, Customer's Email Address, and Message Time.
Wildcards are supported.

A Reset button appears at the top of the page which allows you to clear
the page and begin a new search.

3   Click on the Conduct Search button to view the report.

> **Result: The report results page lists the messages
> that meet your specified criteria.**

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Message Care database

Overview

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Purpose   This information describes the *Message Care* database.

Contents   The following information describes the *Message Care* databases:

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-

-

Audience   This information is intended for system administrators, call center
supervisors, or anyone involved in setting up reports or maintaining
database items.

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Message Care current and archived databases

About *Message Care* current and archived databases

The *Message Care* database is ODBC-compliant. It logs and stores all information recorded during each step in processing a message.

Message Care maintains two databases:

- A current or active message store— *Message Care* Messages (*MessageCare.mdb*): the file name of the Access 97 database containing the message records for messages currently being processed and those messages which entered the closed, blocked, or failed status states since the last message archive was created.

- An archived store— *Message Care* Archive (*ArchiveMessageCare.mdb*): the file name of the Access 97 database containing the message records for messages in the closed, blocked or failed status states when the last message archive was created.

Reports may be generated on both, but as separate reports. The report view of the data is not merged. So if a message archive contains 50 messages that were closed in mailbox A and the current database has 20 messages closed in mailbox A, you cannot request a report showing that 70 messages were closed in mailbox A.

Database Design

The database is designed to store and connect the following information about each message:

- Processing Agent—the agent handling the message call

- Received Message Data—original message including tracking number, subject, text, header information, and file attachments

- Current State—status of the message

- Responses Sent/Outbound Data—outbound messages (does not include auto-acknowledgments) created by agents and sent to the consumer or forwards sent to SMEs within your organization

- Responses Received—from SMEs and the consumer

- Agent Notes— notes created by an agent

- Message History—includes timestamps and, where relevant, agent IDs for each event

- Agent "Workbench"— stores messages saved by the agent.

Structure of the *Message Care* database

The *Message Care* Messages Database has the ODBC Data Source name "Message Care Messages". It contains message-specific information.

Within the *Message Care* Database, information is organized into the following tables:

- Messages Table
- Attachments Table
- Outbound Table
- Notes Table
- Events Table
- Workbench Table

Messages Table

The Messages Table contains "Received Message Data" and "CurrentState" information. It also has fields (as marked with "%") needed to facilitate reporting and responses.

Message Care puts the Tracking Number for a message in the subject line of any outgoing message (for example, forward or reply). Therefore, replies to those messages (responses) still have the tracking number in them (assuming you do not modify the subject) and they will be stored in the Messages table. They are stored here because many of the database elements are common to both types of messages and because it makes handling of attachments straightforward.

Responses are identifiable by the fact that the Original Message flag is set to "No." Other fields (for example, State) are not set for those messages, but are set in the corresponding OriginalMessage. Original messages and Response message are linked by having the same TrackingNumber.

The following table describes each database item found in the Messages Table:

Name	Type/Size	Purpose
MsgID#	Long	Counter (unique value for this table)
MailboxName	Text 20	Identifies the mailbox (Friendly Name) that received this message.
MailboxID	Long	Matches a Mailbox ID in the Mailboxes table. Used by Web screens for per-mailbox options (for example, Closure Codes).

Name	Type/Size	Purpose
TrackingNumber#	Text 8	Each message has a tracking number which is used to identify related messages. The tracking number for "original messages" will be a mathematical function of the ID (for example, ID modulus 100,000,000). For "related messages," the TrackingNumber will have been found in the Message Subject (since that is the definition of a related message).
SiteID	Text 4	The site ID is a component of the tracking number, ensuring uniqueness amongst a network of *Message Care* nodes.
DetectionTime	Date/Time	When the entry was put in the database.
OriginalMsgID#	Long	0 if this is the first message with this TrackingNumber; otherwise, the MsgID of the Original message.
SenderAddress	Text 128	Sender of Message ("From" line from the Message, excluding name if included).
SenderName	Text 128	Name of Sender of Message (if included in "From" line).
Subject	Text 128	Subject in message.
Headers	Memo	Complete list of Headers from Message.
Body	Memo	Body of Message.
MessageDate	Text 50	The date in the message header, usually the date/time the message was sent.
MessageHeaderID	Text 128	Most SMTP servers put a unique ID in the message header. Using this field will help determine whether *Message Care* already read a message from the mailbox and added it to the database but for some reason had not deleted it and is now attempting to read it again.
ToAddress	Text 128	The address this message was sent to (needed for reply).
AttachCount	Integer	Indicates the number of attachments.
AgentID	Text 5	Switch Agent Login ID number of agent last active on the call. For the *DEFINITY* ECS, the maximum size of an AgentID is the same as the maximum size of an extension, (5 digits).

Name	Type/Size	Purpose
StateTime	Date/Time	Time current state was entered.
StatusState#	Text 10	Call State of message, for example, queued, active, suspended.
ReasonCode	Text 20	Secondary information about the state (for example, how the message was completed).
NewMsgArrived	Yes/No	Indicates if a related message arrived while an agent was processing the message.
RevivalTime	Date/Time	Time to unsuspend the call.
Destination	Text 5	The VDN number the call was made to. For suspended messages, the VDN number to call when it is revived.
ASAIDigits	Text 16	ASAI digits to be provided with the call. Applies to original calls and revived calls.
WorkbenchReply	Yes/No	"Yes" if a partial reply composition was saved in the workbench.
WorkbenchForward	Yes/No	"Yes" if a partial forward composition was saved in the workbench.
ViewURL	Text 128	Same as the ViewURL in the Administration database but with parameters resolved.
DeliveryURL	Text 128	Same as the DeliveryURL in the Administration database but with parameters resolved.
CustValue	Text 128	Value for customer to add (for example, Account Number).
The following fields are primarily for reporting purposes.		
RetryCount%	Short	The number of times we tried to make a call for this message.
SuspendCount%	Short	How often this message was suspended.
TouchCount%	Short	How many times this message was made active by an agent.
FirstAnswerTime%	Date/Time	The time an agent first answered a call (should not be overwritten by subsequent answers).
SpeedOfAnswer%	Long	The DetectionTime- firstAnswerTime (seconds).
TimeToProcess%	Long	Sum of all active times by agents (from Answer to Suspend, Close or Transfer).

Name	Type/Size	Purpose
CloseTime	Date/Time	This is needed for Search.
TimeToClose%	Long	DetectionTime-CloseTime (seconds).

Attachments Table

The Attachments Table stores attachments associated with the message. Since there may be zero or more attachments in a message, they are stored in a separate table and linked by MsgID. The AttachCount in the Messages table is a "flag" as to whether there are attachments.

The following table describes each database item found in the Attachments Table:

Name	Type/Size	Purpose
ID#	Long	The counter (unique value for this table).
MsgID#	Long	Matches a MsgID in the Messages table.
MimeType	Text 50	The mime type of the attachment (for example, application/msword).
FileName	Text 128	The name of the attachment.
File	OLE Object	The attachment. The attachment can hold an arbitrarily large binary file.

Outbound Table

The Outbound Table stores outbound data (forwards or replies created by agents).

The following table describes each database item found in the Outbound Table:

Name	Type/Size	Purpose
ID#	Long	The counter (unique value for this table).
MsgID#	Long	Matches a MsgID in the Messages table (will always match an OriginalMessage MsgID).
AgentID	Text 5	The agent who sent the reply or forward.
Timestamp	Date/Time	The time/date this reply was sent.
MessageType	Text 10	Can be either "Forwarded," "Replied," or "Resent."
Body	Memo	Can hold an arbitrarily large text file.

Name	Type/Size	Purpose
ToAddress	Text 255	Who the message was sent to.
CCList	Text 255	Who the message was copied to.
Subject	Text 128	The subject sent with the message.
AttachmentName	Text 128	Name of attachment sent with the message.
OriginalAttachments	Yes/No	Indicates whether original message attachments sent with this message?
FromAddress	Text 255	Return address of the mailbox that the mail has been sent from.

Notes Table

The Notes Table stores notes created by an agent.

The following table describes each database item found in the Notes Table:

Name	Type/Size	Purpose
ID#	Long	The counter (unique value for this table).
MsgID#	Long	Matches a MsgID in the Messages table (will always match an OriginalMessage MsgID).
Agent ID#	Text 5	The agent who created the note.
Timestamp	Date/Time	The time/date this note was saved.
Note	Memo	Can hold an arbitrarily large text file.

Events Table

The Events Table contains data corresponding to the Message History object.

The following table describes each database item found in the Events Table:

Name	Type/Size	Purpose
ID #	Long	The counter (unique value for this table).
MsgID#	Long	Matches a MsgID in the Messages table (will always match an OriginalMessage MsgID).
RelatedID	Long	For events that refer to a related message (for example, forward and reply events) this matches the MsgID of the related message.

Name	Type/Size	Purpose
Timestamp	Date/Time	The time/date this event occurred.
Event	Text 20	Events include call states (for example, queued) and message processing states (for example, replied).
ReasonCode	Text 20	Secondary information about the state (for example, how the message was completed).
AgentID	Text 5	Applicable to some events, for example, answered, suspended.
OtherData	Text 50	Zero or more pieces of data associated with the event. Actual data depends on event. For example, a suspend event may include the VDN to call on expiration of the Suspend timer.

Workbench Table

The Workbench Table stores saved versions of composed replies associated with the message. Since there may be 0, 1, or 2 of these per message and they may be large, they are stored in a separate table and linked by MsgID. The WorkBench field in the Messages table is a "flag" as to whether there is a previously saved response. The layout of this table is very similar to the Outbound Table (minus the AgentID and Timestamp).

The following table describes each database item found in the Workbench Table:

Name	Type/Size	Purpose
ID #	Long	The counter (unique value for this table).
MsgID#	Long	Matches a MsgID in the Messages table (will always match an OriginalMessage MsgID).
MessageType	Text 8	Can be either "Forward" or "Reply."
Body	Memo	Can hold an arbitrarily large text file.
ToAddress	Text 255	Who the message was sent to.
CCList	Text 255	Who the message was copied to.
Subject	Text 128	The subject sent with the message.
AttachmentName	Text 128	The name of attachment sent with the message.
OriginalAttachments	Yes/No	Indicates whether the original message attachments sent with this message.

Customizing the *Message Care* database

About Customizing the *Message Care* database

Because the database is ODBC-compliant, you can modify it to contain additional custom fields to ensure that the information stored with each message meets your business needs.

For instance, you may want to associate an account number with each message. Either a Web page you supply, or any other data-handling application, can insert the desired values in your custom fields. Then you can use these fields in searching the database.

It is your responsibility to create the tools you need for extracting information or porting data to another database (for example, an internal customer database).

In addition, you can modify the agent interface to collect and display the additional information when and where you want it.

Things to know about modifying the *Message Care* database

The following list provides important information about modifying the *Message Care* database:

- If you choose to modify the database, be sure not to change or delete any fields that came with the *Message Care* database.

- If you want to customize the *Message Care* database, first examine the structure of the database as it comes with the *Message Care* software. Then, if you find that the database does not already include the information you need, add the fields you want.

- The one customer-administrable option regarding *Message Care* reports is to select which database to use when generating a report.

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Search multiple archives

About Searching for multiple archives

The search capabilities provided by the *Message Care* Web pages will search only the current message storage system and a single archive. Searches on other archived messages must be provided by you.

For additional information on database archiving, please see Archive message records: page 9-17.

Extracting information from storage

Message Care supports the individual retrieval of each stored message. By using the published schema of the *Message Care* message storage system, you can retrieve specific pieces of correspondence associated with a message (for example, you may wish to retrieve only responses from the consumer). These consumer responses can than be extracted for storage into your customer-maintained consumer contact database.

Storing timestamp information, including the time the consumer sent the request and when *Message Care* retrieved it, allows you to better understand the consumer's service time. For example, if your Web site takes too long to send mail, the call center is disadvantaged.

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8   Web page guidelines

Overview

Purpose   The purpose of this information is to provide guidelines for designing, creating, modifying, or enhancing Web pages to work in conjunction with the *CentreVu* Internet Solution.

Audience   This chapter is intended for supervisors, system administrators, and persons responsible for designing and implementing Web pages for an *CentreVu* Internet Solution. Audiences for this chapter should be familiar with Hypertext Markup Language (HTML) and want to make their Web pages *CentreVu* Internet Solution-enabled. Contact Lucent Technologies' NetCare Services for assistance in developing Web pages. Otherwise, developing a Web site is the responsibility of the call center.

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Agent login page

Developing the agent log in page

An Agent Login Web page must be developed so that agents can log in to the *CentreVu* Internet Solution. This page may provide the agent with instructions, but more importantly, a form must be constructed to collect agent information and pass it to the *Java* Servlet: *http://<ICM_server_name>/servlet/WT/agentsu*.

The following is a list of required and optional parameters that are passed to the *http://<ICM_server_name>/servlet/WT/agentsu Java* Servlet:

Input Name	Value	Description
agentId	Numeric	Expert Agent Selection (EAS) Login ID for the agent.
agentExt	Numeric	Extension of the agent's voice terminal.
agentName (optional)	Text	Agent's name.
agentPassword (optional)	Numeric	Agent login password.
language (optional)	Text	This parameter determines the language of the Agent Control Window. The default is US English (en-US). The values provided in the ICC Solution are: US English (en-US), Columbian Spanish (es-CO), French (fr), German (de), Italian (it), Brazilian Portuguese (pt-BR), and Japanese (ja).
browseWinURL (optional)	URL	This URL is displayed to the agent while the agent applet is downloading. It defaults to */icc/icc_welcome.html* (if not specified).

Input Name	Value	Description
helpURL (optional)	URL	This URL is displayed when the Help button found on the Agent Control Window is pressed. The default is */itg/cphelp.html*.
showLogout	yes/no	This parameter controls the visibility of a Logout button on the Agent Control Window. If set to yes, a Logout button is displayed on the agent's applet. If set to no, the Logout button is not visible. This parameter must be used in conjunction with the Agent Logout Button Administration. If the Agent Logout option is disabled, the button on the Agent Control Window does not work even though it may be visible. The default for the *showLogout* parameter is no.

Additional customer-defined parameters can be submitted to the *http://<ICM_server_name>/servlet/WT/agentsu* script. These parameters do not affect the login process but are passed to the URL administered for the Agent Idle event.

Important! The Agent Name parameter is optional because it does not affect the login process. However, this parameter is special in that it is also passed to the URL associated with the Caller's Call Answered event message. Using this parameter, a script can display the agent's name to the customer when the call is answered.

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9   Monitor and maintain the *CentreVu* Internet Solution

Overview

Purpose   The purpose of the following information is to cover basic monitoring and maintenance tasks.

Audience   This information is intended for system administrators, support personnel, and anyone who wants an overview of monitoring and maintaining the *CentreVu* Internet Solution.

Contents   This section contains information about the following:

Monitoring and maintaining the ICM and CTI

Overview

Purpose   The purpose of this section is to provide information about supporting the following:

• [Supporting the ICM server: page 9-3](#)

• [Supporting the CTI process: page 9-7](#)

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Supporting the ICM server

Access to the ICM server
The following are access methods to the ICM server. The support capabilities differ depending on the access method.

- ICM server
- Telnet session
- Remote access through *pcANYWHERE*

ICM server

The most complete support access is available from the console terminal and keyboard on the ICM server. This displays the Internet Call Manager Control Window. This control panel displays the ICM log file, controls the logging level of this file, and allows an administrator to enter commands to obtain status information.

To access the Internet Call Manager Control Window from the ICM server, do the following:

1. Click on the *Windows* Start button, and then click on the Lucent ICM_CTI menu entry.

2. From the Lucent ICM_CTI menu entry, click on the Lucent Internet Call Manager entry.

   The Internet Call Manager Control Window appears.

Telnet session

Another support access method is a telnet session from another server with LAN access into the maintenance and administration ICM Utility Connection port 8104 supported by the ICM application on the ICM server. In a manner similar to the control panel, the ICM log is actively displayed and commands can be entered.

An example of access to the ICM server over port 8104 is as follows:

1. On ITG server, enter:

   telnet <address of ICM server> 8104

   id mtce ext none

2. After no response or a prompt, enter:

   patchmein

The ICM log file begins to display as the information is logged. Commands can be entered at any time (see). The session can be ended by normal telnet termination (press the tilde "~" followed by a period ".") or by using the status command.

pcANYWHERE

The *pcANYWHERE* package (and modem) allows full access to the ICM server functions and all ICM commands. The *pcANYWHERE* package is required for full-remote support of the ICM server.

Illustration   The following illustration provides an example of the Internet Call Manager Control Window:
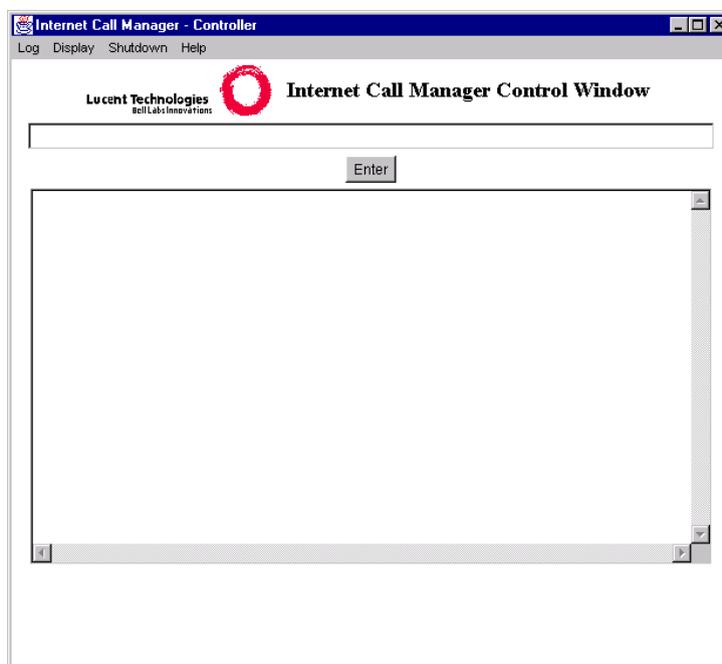
Log files on the ICM server   The log file available on the ICM server is the *icmlog.txt* which is maintained in the *c:\itg* (default) directory. Once this log file reaches 3MB, it is copied to the *icmlog.bak* file and logging continues in the *icmlog.txt* file.

The log file contains all events that occur for agent login, caller access, and agent/caller interactions. The log file also contains the results of any status commands executed.

Information contained in the log file is not intended for general consumption. It is useful for experienced support personnel to obtain status information and call events from the server. Information logging levels can be controlled from the drop-down menu on the Internet Call Manager Control Window menu bar (see

). The normal logging level displays errors and connection events as agents, callers, or calls interact with the ICM application. The debugging logging level displays all the events that occur for an agent or call.

Status on the ICM server

Status information available on the ICM server consists of the current agent and call connections maintained by the ICM application.

Commands on the ICM server

Commands are available on the ICM server through the Internet Call Manager Control Window's menu bar (Log, Display, Shutdown, and Help) or over a telnet session to the maintenance and administration port of the ICM application. These commands are intended for use by experienced support personnel to help monitor and troubleshoot the ICM application on the ICM server.

ICM server commands are identified in the following table:

Command	Description
Close <connection ID>	Clears (drops) the identified connection.
debug <on/off>	Changes the ICM logging level for more/less detail.
display calls	Displays the current calls that are known to the ICM application. Also displays the connection ID of the parties on the call.
display connections	Displays all the available agents and callers that are known to the ICM application. A connection ID is given for each and may be useful for following all the events for that ID or for subsequent commands.
display licenses	Displays the license configuration along with the total number of active calls for each license type.
sendagents <text>	Broadcasts text to all active agent's control windows.
sendto cti logout <agent extension> <group extenstion> <agent id>	Forces the logout of the indicated agent in the call center through the CTI process. The <group extension> is typically "none."
display agents	Displays information about the agents that are logged in to the *CentreVu* Internet Solution.
display counts	Displays information on the current number of calls.

Command	Description
display itgs (for ICC only)	Displays the service state of each ITG. The service states are: • INSERV—ITG is in service and accepting calls • OOS—ITG is out of service and is safe to shut down. • FOOS—ITG is not connected to the ICM • MANOOS—ITG is out of service, but still processing an active call(s).
The following commands are used for remote connections only. Do not use these commands in the ICM server text box.	
if <description> <type> <parameter>	Identifies the incoming connection over the administration and maintenance port. Use only: id mtce ext none.
patchmein	Directs ICM log file output to the administration and maintenance port and recognizes commands over this port.

The Help menu contains two menu items: Version and Commands. The Version menu item displays ICM version information and the Commands menu items lists all the available ICM commands.

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Supporting the CTI process

Overview
Various commands and log files are available for monitoring and maintaining the CTI process for the *CentreVu* Internet Solution. Monitoring and maintaining the CTI process is conducted through the Internet CTI Manager Control Window. This section describes how to monitor and maintain the CTI process and also references commands and log files.

Access to the Internet CTI Manager Control Window
To access the Internet CTI Manager Control Window, do the following

1. Click on the *Windows* Start button, and then click on the Lucent ICM_CTI menu entry.

2. From the Lucent ICM_CTI menu entry, click on the Lucent Internet CTI Manager entry.

   The Internet CTI Manager Control Window appears.

Illustration
The following illustration provides an example of the Internet CTI Manager Control Window:
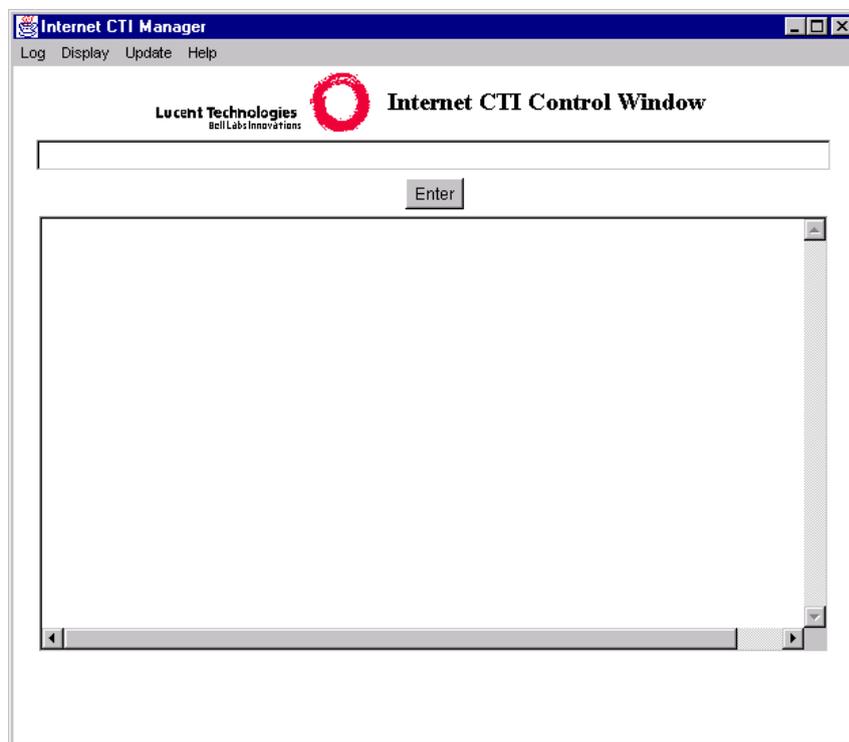
Log files on the CTI process
The log file available on the ICM server for the CTI process is the *ctilog.txt* which is maintained in the *c:\itg* directory (default). Once this

log file reaches 2MB, it is copied to the *citlog.bak* file and logging continues in the *ctilog.txt* file.

The log file contains all events that occur for agent login, caller access, and agent/caller interactions. The log file also contains the results of any status commands executed.

Information contained in the log file is not intended for general consumption. It is useful for experienced support personnel to obtain status information and call events from the server. Information logging levels can be controlled from the drop-down menu on the Internet CTI Manager Control Window.

Commands on the Internet CTI Manager Control Window

Commands are available on the CTI process through the Internet CTI Manager Control Window. These commands are intended for use by experienced support personnel to help monitor and troubleshoot the CTI application.

The Internet CTI Manager Control Window commands are identified in the following table:

Command	Description
display acds	Displays the list of ACDs that are being monitored for agent state changes ("Monitored ACD Extensions") and a list of ACDs being monitored for call state changes ("Called ACD Extensions").
display administration	Displays the administration parameters the CTI process uses for establishing a connection to the Telephony Server and displays the version of the JTAPI client.
display calls	Displays the calls currently being tracked by the CTI process. Calls in the CTI process are stored by both the JTAPI CALL object ("ICM Calls In Call Hash Table") and by the ICM call ID ("ICM Calls In ICMCallID Hash Table").
display connections	Displays the status of the ports on which the CTI process listens for connections. The CTI process listens on a port for the ICM process and listens on another maintenance port which is used to control the CTI process when it is run as an NT service.
display phantomExts	Displays the list of phantom extensions the CTI process uses to launch calls. The "Message Type Phantom Extensions" are for *Message Care* calls.

Command	Description
update monitorAcds	Causes the CTI process to reload the list of "Monitored ACD Extensions" from the ctiparms.txt file.
update tserverAdmin	Causes the CTI process to resynchronize the set of valid devices with the *CentreVu* CT server. This must be done if the *CentreVu* CT server administration is changed after updating the CTI process administration for phantom extensions or monitored ACD devices. This command drops active calls.
version	Displays the version information for the CTI process.
commands	Displays the list of valid commands.
quit	Causes the CTI process to stop.
stop	Causes the CTI process to stop.
Reset	Causes the CTI process to reset.
SendICM[message]	Sends the ICM process the indicated "message" string.

Updating devices in the *CentreVu* Computer-Telephony server

Preferred method

The preferred method for updating devices (for example, phantom extensions and monitored hunt groups) is to update the *CentreVu* Computer-Telephony server and then update the CentreVu Internet Solution Administration Web pages.

What happens when you do not update devices using the preferred method?

If you do not follow the preferred method and attempt to update devices using the Administration Web pages, the CTI process will be informed of the update; however, the *CentreVu* Computer-Telephony server will not be informed of the update.

To ensure the *CentreVu* Computer-Telephony server is aware of the update, you must do the following:

1.   After you have updated devices using the Administration web pages, update the *CentreVu* Computer-Telephony server.

2.   Open the CTI Manager. From the Update menu, select the tserverAdmin menu item. Selecting the tserverAdmin menu item updates the *CentreVu* Computer-Telephony server with the correct information.

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Maintain the *Message Care* system

Overview

Purpose   The following information explains how to manage the *Message Care* system software. The information includes recommended scheduled maintenance information.

Contents   The following items are covered:

Introduction to the Work Flow Manager (WFM)

About the WFM Control Window

The WFM Control Window contains sever menu items to help you maintain your *Message Care* system.

Illustration

The following is an illustration of the Work Flow Manager Control Window:

Log files for the *Message Care* system

The error log file where *Message Care* application errors are logged is as follows: *\mcerrorlog.txt* file (where the default installation directory is: *c:\Program Files\MessageCare*).

For more information about the *Message Care* error log, see Message Care error logs: page 11-2.

Menu items on the WFM Control Window

The following table describes each menu item in the WFM Control Window:

Menu	Menu Item	Description
Log	Normal	Changes the WMF logging level to less detail.
	Debug	Changes the WMF logging level to more detail.

Menu	Menu Item	Description
Display	Queues	Displays the Hash, Retrieval, WaitLaunch, and Suspended queues.
	Hash	Displays information about all messages known to the WFM.
	Retrieval	Displays messages on the retrieval queue. The Retrieval queue contains messages that agents have requested for retrieval that are waiting to be launched.
	WaitLaunch	Displays other messages (non- retrieval messages) that are waiting to be launched.
	Suspended	Displays messages that are suspended.
	Callinfo	Prints the following: • Max Simultaneous Calls—number of simultaneous calls allowed • Current Simultaneous Calls—current number of calls • License Call Limit—number of calls allowed by the license • Administered Call Limit—number of calls you administered
Maintenance	Stop Mail Manager Service	Stops the Mail Manager service. This service can be restarted from the *Windows NT* services menu.
	Stop Mailbox Polling	Stops the polling of mailboxes.
	Start Mailbox Polling	Starts the polling of mailboxes
	Stop Workflow Manager	Stops the WFM. Note, that this stops the WFM process not the WFM service in the *Windows NT* services menu. This service can be restarted from the *Windows NT* services menu.
	Stop Call Launch	Drops the current launched calls and stops the launching of new calls.
	Start Call Launch	Starts launching of new calls.
Help	Version	Displays the version information for the WFM.
	Commands	Displays the list of valid WFM commands.

Monitor and maintain the CentreVu Internet Solution .... Message Care Solution Guide for the CentreVu Internet Solution, 585-...............................

Perform a graceful shutdown

Shut down the *Message Care* system

To gracefully shut down the *Message Care* system, do the following:

1 Use the WFM Control Window to do the following. See [Introduction to the Work Flow Manager (WFM): page 9-12](#) for information about the WFM.

- Stop Mail Manager service by selecting the Stop Mail Manager Service menu item from the Maintenance menu.
- Stop Call Launch—this menu item drops message calls currently in the Launched state and will prevent new message calls from being launched. The Stop Call Launch menu item does not affect messages calla that are active.

2 From the Display menu in the WFM Control Window, monitor agent progress using the CallInfo menu item. The number listed for Current Simultaneous Calls provides the number of message calls currently active.

3 When the number of active message calls reaches zero, stop the WFM. To stop the WFM, select the Stop Work Flow Manager menu item from the Maintenance menu in the WFM Control Window.

4 Stop the Lucent Work Flow Manager services by doing the following:

- From the Control Panel, select Services.
- Click on the Lucent Work Flow Manager, and then click Stop.

5 Stop the IIS Web service.

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Recommended scheduled maintenance

Introduction   To ensure optimum system performance, we suggest that you adhere to the recommended scheduled maintenance.

The following table provides the recommended scheduled maintenance:

Maintenance	Schedule
Back up your message storage system	Back up daily.
Archive the *Message Care* database	How often you archive your *Message Care* database depends on the size of your messages. As a guideline, archiving 10,000 messages at a time should take less than one hour. However, we recommend that you perform an archive to determine the total time required to archive your own data. Having an estimate based on your own data will allow you to more accurately plan future archives.
Manage and update the dictionary	As needed.
Managing the overflow queue	When overflow queue exceeds 5,000 messages.
Clean up temp directory	Every 10,000 messages or as often as needed.
Clean up *winnt\system32\Logfiles*	Either disable logging or clean up files on a daily basis.
Check performance characteristics of your system	At least once a month or more frequently as needed. For example, if you are experiencing an increase in mail volume then you may want to check system performance more than once a month.

Back up the message storage system

About
Backing up your data is an important aspect of maintaining your system and data. Regular backups provide a way to recover data that would otherwise be lost or damaged. A backup copies the data stored on your hard disk to a tape. The tape can then be used to restore your data if the need arises.

How do I back up the message storage system?
A backup is achieved by copying files to a specified location. You can backup your files located on your hard disk to tape through an application such as the *Microsoft Windows NT* Backup found in *Microsoft Windows* Explorer.

Restoring databases is achieved by stopping the *Message Care* services by using the graceful shutdown procedures and then conducting the restore process.

We recommend that you separately back up the following components of *Message Care*:

- Message database and the archive database (*MessageCare.mdb* and *ArchiveMessageCare.mdb*)

- Administration Database (*MsgCareAdmin.mdb*)

- *Msgcare.ini* (This is the *Windows NT* directory.)

- The *C:/itg/itgparms.txt* file

    and the *C:/itg/icmparms.txt* file

- *license.dat*

- *Spell-Server/dict.txt*

- *C:\itg\admin\msgcare\MCAdministration.htm*

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Archive message records

Why archive message records?

The message database has a limited capacity so you need to periodically create an archive of message records. Also, large sized databases reduce performance so you should monitor the size of your database and archive as necessary.

Planning

Planning your archive at a particular time is important because the *Message Care* software must first be halted.

Keep in mind the capacity constraints of the *Message Care* database. As the capacity of the database is reaching its maximum (default maximum capacity = 750 million bytes), *Message Care* will generate alarms. *Message Care* generates alarms at 80%, 90%, and then 95% of the database's capacity. When the maximum capacity of the database is reached, *Message Care* will stop polling for messages. More information about capacity constraints can be found in Message Care Capacities: page 1-3.

Before performing an archive, verify that there is sufficient free disk space for the archive database. The exact amount of space required depends on the number and size of messages that will be archived. The most space you will need however, would be the amount of space equal to the size of the active message database.

Available archive tool

Message Care provides the tool to archive message records into another *Microsoft* Access database. Once this archived database is created, you can use the *Message Care* reports and search capabilities to access archived messages. *Message Care* Reports and Search capabilities are designed so that you can use both the active database (*MessageCare.mdb*) and the archived database (zxz *ArchiveMessageCare.mdb*).

What happens when you create an archive?

When the archive utility is run, the current archive file is copied to a default location and an empty messages database is copied to the location pointed to by the *Message Care* Archive Domain Naming System (DNS). Then, the selected messages are copied from the Active database to the Archive database, and then deleted from the Active database. When the copy is completed, the Active database will be compacted to recover space.

During an archive, a *mcarchive.txt* log file is created in the temp directory of the *Message Care* installed directory.

How to archive messages   To archive messages, do the following:

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1   Shut down the *Message Care* system. See for procedures on how to gracefully shut down the *Message Care* system.

....

2   Use the Archiving utility (*MCArchive.exe* located in the subdirectory of the *Message Care* installed directory) in one of the two following methods:

- Interactive Mode—double click on the **MCArchive.exe** command. A dialog box appears requesting the age of the messages to be archive. A selection of "7" instructs the utility to archive all messages closed, failed, or blocked for more than seven days.

- Command Line Mode—Enter the command: **MCArchive.exe / i x**(for example, **MCArchive.exe /i7**) where the value after "/ i x" is the "interval" of time, in "days," before which messages should be archived.

  Regardless of the method you use, the intended operation of the archive utility is the same and the following occurs:

  1. The current Archive database is renamed to: *MCArchive.mdb*

  2. If there already is a file of that name, then a suffix is added to the name, for example: *MCArchive.1.mdb*

  3. A new Archive database is created containing all Blocked, Closed, and Failed messages older than the interval. This includes all related records such as notes, outgoing messages, and attachments.

  4. If all messages are copied successfully, the corresponding messages (including all related records) are deleted from the *MessageCare.mdb* database.

  5. The *MessageCare.mdb* database is compressed to recover space freed up by deleting records.

  6. The Administration database is also compacted.

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3   Reboot the NT server.

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Manage and update the dictionary

About   The *Message Care* software provides controls to create a text message response to the consumer with spell checking utilities. The spell checker identifies words that are not in the spell check dictionary and allows you to either edit the word or ignore the word. The spell checker also allows an agent to add new words to the dictionary.

Periodically, the dictionary file needs to be managed and updated.

To edit the dictionary file, do the following:

1.   Stop the spell server (through the NT services control panel

2.   From the Message Care directory, edit *\bin\SpellServer\dict.txt*

3.   From the Message Care directory, remove or rename *\bin\SpellServer\sndspell.jdp*

4.   Restart the spell server.

Prevent overflowed messages

What is an overflowed queue?

Overflowed is a message status state given to messages being managed by the *Message Care* software while waiting to launch a call to *DEFINITY* ECS. For example, if there is a lack of facilities to launch message calls or if vector programming in the *DEFINITY* ECS restricts the number of calls that may be queued for a specific agent skill set, the calls are delayed and wait in the Overflowed state.

Overflowed messages cause distortion in CMS statistics, since CMS can track messages starting only at the *DEFINITY* ECS.

Why manage the overflowed queue

If the queue size becomes too large (for example, several thousand messages), operational efficiency is compromised because the queue management begins to utilize extensive CPU resources.

To maintain optimum system performance, supervisors should periodically monitor the size of the overflowed queue managed by the *Message Care* Work Flow Manager.

Overflowed process

When a facility becomes available, the *Message Care* software delivers messages using a selection process according to the following priorities:

1. Messages manually retrieved by agents.

2. All other messages awaiting delivery to an agent. These include the following messages:

   • Newly arrived

   • Original and response

   • Expired suspension timer

   • Previous call attempts

If the number of incoming messages exceeds the resources available to launch message calls, the *Message Care* software queues the overflowed messages internally, in a First In-First Out (FIFO) queue. Then, as resources for launching a message call become available, the *Message Care* software launches them in the order received.

The number of incoming message calls can exceed the available total resources in any of the following three ways:

• All the assigned stations administered without hardware (AWOH) are in use.

• The number of simultaneous message calls reaches the maximum you have purchased (this includes both calls queued on the *DEFINITY* ECS and calls active at agent desktops).

• The total reaches a threshold you have administered on the Message Care System Options administration Web page (Max Simultaneous Message Calls).

The *Message Care* software retries overflowed calls every 15 minutes. If an overflowed call was already tried in the last 15 minutes, the *Message Care* software skips it and goes to the next. Even if *DEFINITY* ECS rejects an overflowed call because the queue for that skill (mailbox) is full, the *Message Care* software tries the next overflowed call anyway, in case it goes to a different skill/queue.

Determine queue size
The queue size can be determined by generating a snap-shot report or by searching for messages with an overflowed status. The search result will report on the total number of messages in the overflowed state.

Reduce the queue size
If the number of overflowed messages exceeds 5,000, you should stop the flow of new messages into the system, and allow your agents to work on messages already in the system to reduce the queue size.

To stop the flow of new messages into the system, disable polling of selected mailboxes.

When there is no longer an overflowed situation that is compromising operational efficiencies, then resume message polling by enabling polling or starting the Mail Manager service.

□

Clean up the *temp* directory

Important! When cleaning up the *temp* directory, *do not* remove the following files:

- *Mungeerror.txt*

- *MIMEdllerror.log*

How to clean up *temp* directory

Cleaning up the *temp* directory while *Message Care* is taken down for archiving will make better use *Message Care* downtime.

To free up disk space, periodically delete the files located in the *c:\Program Files\Message Care\temp* directory.

☐

Clean up the *winnt\system32\Logfiles* directory

About   Log files will get generated if IIS Logging is enabled. We recommend that logging be disabled or the files be cleaned up at least on a daily basis.

☐

Check the performance characteristics of your system

Why check system performance?
You can achieve performance gains by monitoring the system's performance and identifying bottlenecks. With the recommended minimum configuration for *Message Care*, performance issues may arise depending on the number of agents and number of messages that flow through the *Message Care* system.

What you should check

If performance degradation is perceived, consider the following areas as likely candidates for future upgrades:

- Memory—increase
- Disk—consider a RAID disk system with a SCSI interface
- Network—load balancing software for multiple NICs
- CPU—increase

☐

Check NT server performance

Introduction   If you are experiencing performance problems (for example, agents are experiencing delays or polling intervals are not being met), run the Performance Monitor (located in the Administrative Tools menu) in the logging mode (as opposed to charting) with all counters selected. Set logging for every 120 seconds and save the configuration.

To obtain a sample of the server workload, run monitoring for a full working day. To study the log files, monitoring should be stopped and switched to view chart mode. Load the data that was collected by selecting the Data From menu item from the Options menu.

The critical objects are:

- Processor—% Processor Time (for each processor instance): should not stay above 85% most of the time.

- System—ProcessorQueueLength: the sustained value for this should be no larger than 2. A value higher than 2 indicates a bottleneck in the system.

- Memory—Pages/sec: if Pages/sec is greater than 10, then memory is constrained. Your system is seriously degrading if Pages/sec is greater than 20.

- Memory—PageFaults/sec and CacheFaults/sec: if CacheFaults/sec is greater that PageFaults/sec, then there is too much paging. You should increase your system's memory.

- Paging File—should typically be set for twice the physical memory and preferably distributed among the physical disks in the system separate from the Windows NT system files.

- Disks—by default, disk counters are disabled. To enable disk counters, enter diskperf -y.

  You should try to attain the following value:

  – PhysDisk: %DiskTime (<85 to 90%)

  – PhysDisk: CurrentDiskQueueLength (<2)

  – PhysDisk: AvgDiskSec/Transfer (<0.3)

  – PhysDisk: AvgDiskBytes/Transfer (>20K)

- Network Interface Card—BytesTotal/sec: a 10Mbit Ethernet segmet has a maximum throughput of 1.2Mbit.

□

10   Troubleshooting

Overview

Purpose   This information provides troubleshooting guidelines for the *CentreVu* Internet Solution. Information in this chapter represents a compilation of known problems and suggested solutions, based on actual installations. Check the troubleshooting items in this chapter before calling the Lucent Technologies National Customer Care Center on 1-800-242-2121.

References   In addition to the troubleshooting topics that follow, you should check the *readme.txt* file that is delivered with the software. The *readme.txt* file includes late-breaking changes to and news about the software.

Audience   This document is intended for installers, administrators, agents, and anyone who uses the *CentreVu* Internet Solution.

References   Use the following references to help troubleshoot problems:

- *DEFINITY* ECS documentation

- *CentreVu* Computer Telephony documentation

☐

Cannot access Administration Web pages

Description An attempt to access the *CentreVu* Internet Solution Web-based
administration at *http://<icm_server<name>/admin* produces an error
or no Web page appears.

Action

1   From the *Microsoft* Internet Information Server (IIS) Manager, verify
     that the WWW service is running on the ICM server. If the WWW
     service is not running, select the WWW service and start it from the
     Properties menu.

2   From the IIS Manager, verify that the alias for the *c:\itg\admin* directory
     is set to **/admin** and that the Read and Execute Access permissions are
     selected.

3   Verify that you have permission to access the administration Web pages.

4   Verify that the JRun service is started, using Control Panel->Services.

5   If there is a connectivity problem between the current browser and the
     ICM server, troubleshoot LAN connectivity. Verify that the ICM server
     is accessible on the LAN and from the computer running the browser.

E ND OF STEPS

□

Agent cannot log in

Description   The initial download of the Agent Control Window occurs properly, but the login sequence fails.

Action

1   If no further progress is seen after the applet downloads in the Agent Control Window, verify that the ICM server is up and the Internet Call Manager (ICM) application is running.

2   Check that the firewall is administered to allow TCP connections from a dynamic TCP port (>1023) on the agent's PC to the ICM server, TCP port 8101.

3   If Agent Control Window activity stops after the establishing connection message, perform the following:

•   Verify that the specified Agent extension is in use. If so, hang up the phone and enter the password again.

•   Verify *DEFINITY* ECS status for station xxxx, using the adjunct link (ADJLK) extension. Check the status of the *DEFINITY* LAN Gateway board. If the status station command reveals that the ADJLK station is "disconnected," refer to *CentreVu* Computer Telephony documentation to troubleshoot the *DEFINITY* ECS-to-*CentreVu* Computer-Telephony connection.

•   Confirm that the *CentreVu* Computer-Telephony and the ICM server are communicating.

4 If a **Login failed** error message is displayed in the Agent Control
Window with one of the following additional messages, perform the
indicated action:

- **Agent_Already_Logged_Into_Switch** means that the
  specified agent ID or extension has been logged into the
  DEFINITY ECS by way of a voice terminal rather than through
  the Web login page. Use the *DEFINITY* ECS **list agent-id**
  command to determine whether the agent ID or the extension is in
  use. Log off from the voice terminal and log in again through the
  Web login page.

- **Requested_AgentID_Ext_Mismatch** means that the specified
  agent ID has been logged into the *DEFINITY* ECS at the specified
  extension rather than through the Web login page.

- **Agt_Not_Split_Member_Or_Bad_Passwd** means that an
  incorrect password was entered.

- **Invalid_Skill/Split** means that an invalid agent ID was
  entered. The agent ID was either entered incorrectly or the
  DEFINITY ECS administration is incorrect. Be sure that the agent
  is administered with the *CentreVu* Internet Solution skill, then
  have the agent try to log in manually from a phone. If the login
  attempt fails, troubleshoot the *DEFINITY* ECS. If the login
  attempt works, have the agent log out and try to log in again by
  way of the browser.

- **Tsrv_Device_No_Admin** means that the specified extension
  was entered incorrectly or that it is not administered in the
  CentreVu Computer Telephony Security Database.

- **INVALID_EXT** means that the specified extension is on an active
  call. The agent phone must be completely idle on all line
  appearances for the login to succeed. Placing an active call on
  hold will not suffice, all line appearances must be idle.

....

5   If a pop-up window appears stating **You are already logged in at Extension xxx. What would you like to do?**, perform the following:

- Select the Force Log Out button on the pop-up window to log the other session out, or select the Quit button to abort the login attempt. The ICM Control Window shows that the specified agent ID is logged in at the indicated extension.

- If the Force Log Out button is used but the message **Force Out FAILED Agent_Is_Busy** is displayed, then a call is in progress at the other agent station. When that call terminates, the agent is logged out.

- If the forced logout does not work, then on a *DEFINITY* ECS console enter list agent-id xxxx. If it shows as "unstaffed", then there may be an ICM server or *CentreVu* Computer-Telephony problem.

  Important!   Shut down any software packages running on the *CentreVu* Computer-Telephony (except for CTI). Do not run any other applications on the server until the problem is resolved.

....

6   Check the *CentreVu* Computer-Telephony hardware to make sure that it is fully in service and does not have any status windows showing a problem. Verify that the agent's physical phone extension is administered as a device in the *CentreVu* Computer-Telephony's Security Database.

....

7   Check the status of the ICM server:

- Verify that the ICM application is running by clicking on the Services icon in the Control Panel. The Internet Call Manager service should be started. Display the ICM Control Window by clicking on the Start menu, and then selecting the Lucent Internet Call Manager program. Once opened, look for errors that may describe why an agent cannot log in.

- Enter the command **display agents** in the text entry field, or from the Display menu select the Agents menu item. Determine if the ICM thinks the agent is already logged in, as shown by a line listing the Agent with the specified ID.

....

- If the agent is shown to be logged in, issue the ICM command
  **sendto cti logout extension passageway_group
  agent-id**. (The **passageway_group** is typically "none.")
  Reissue the **display agents** command to verify the agent is
  logged out, and have the agent try logging in again from the Web
  page. If the command does not log the agent out, verify the phone
  extension and skill group in the *CentreVu* Computer-Telephony
  server.

Agent Control Window fails to launch properly

Description   The Agent Control Window fails to download or display properly after the agent fills out the form on the login page and submits it.

Action

1   Verify that the agent's Web browser is *Java* and JavaScript enabled:

- On *Netscape Navigator* 4.x, from the Edit menu select the Preferences item, and then select Advanced to display its contents. Both the Enable Java and Enable JavaScript items should be checked.

- On Internet Explorer 4.x, from the View menu select the Internet Options menu item, and then select Advanced. The Java JIT compiler Enabled under Java VM item should be checked.

2   Check for error messages on the browser window. Also open the *Java* Console window and look for errors:

- On *Netscape Navigator*, use Options->Show Java Console.

- On Internet Explorer, check the " Enable Java Logging" box on the View->Options->Advanced tab. Stop and restart Internet Explorer, then periodically use a text editor (such as Notepad) to examine the *c:\windows\javalog.txt* file.

3   Check whether network settings have been changed. The browser may need to be changed to reflect "no proxy" settings for the *CentreVu* Internet Solution components on the network.

4   Connect a PC to the same LAN segment as the ICM server and verify that the agent can log in. If so, then examine the administration of the firewall and other intermediate equipment.

E ND OF STEPS

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Agent cannot receive calls

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Description   Once an agent is logged in and the Agent Control Window is open on
the desktop, calls should be able to reach the agent. If it becomes
apparent that the agent is not receiving calls, follow these steps to
identify the problem. Also see the *DEFINITY Communications System
Call Vectoring/EAS Guide (555-230-520)* for more detailed *DEFINITY*
ECS troubleshooting guidelines.

Action

....

1   Confirm that the agent is logged into the *DEFINITY* ECS ACD by
entering the **list agent_id xxxx** command on a *DEFINITY* ECS
console. Also note whether the agent is administered with the correct
skill(s).

....

2   Verify that the agent is in the Auto-In or Manual-In mode on the voice
terminal.

....

3   If the call center has BCMS, enter the command **monitor bcms
skill <Internet skill>**. Verify that the agent is staffed, has the
correct physical extension, and is in the "Available" state.

....

4   On the ICM server, confirm that the ICM lists the agent as logged in by
selecting the agent menu item from the Display menu. Look for a line
listing the agent with the specified ID.

....

5   Verify that the VDN is processing the call correctly by placing a test call
from another phone to an Internet VDN. Check vector steps for the
correct call flow.

....

....

6   Verify that the following are administered correctly on the *CentreVu*
Computer Telephony server device administration and the *DEFINITY*
ECS:

- Agent extensions
- Phantom extensions
- VDNs to launch message calls
- Hunt group extensions for agent skills

Verify that the phantom extensions are administered correctly on the
ICC/Message Care Common Administration Web page.

Verify that the Monitored Hunt Groups are correctly administered on
the CTI Administration Web page.

Verify that the VDNs are correctly administered on the *Message Care*
Mailbox Administration Web page.

....

7   Verify that the caller Web page has the correct URL reference with the
correct VDNs and call types. See for
details.

For *Message Care*, verify that the correct VDN is administered for the
mailbox.

....

8   For message calls, send a test message.

E ND OF STEPS
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Message Care agent gets a call but no PagePop

Description   As part of the process of connecting with an incoming message call, the browser should display a PagePop. If no PagePop occurs when a call comes in, use the following steps to identify the problem.

Action

1   Confirm that the agent is logged in to the *DEFINITY* ECS ACD by entering the **list agent_id xxxx** command on a *DEFINITY* ECS console. Also note whether the agent is administered with the *Message Care* skill(s).

2   Verify that the agent is in the Auto-In or Manual-In mode on the voice terminal.

3   If the call center has BCMS, enter the command **monitor bcms skill <Internet skill>**. Verify that the agent is staffed, has the correct physical extension, and is in the "Available" state.

4   On the ICM server, confirm that the ICM lists the agent as logged in by selecting the agent menu item from the Display menu. Look for a line listing the agent with the specified ID.

5   Verify that the VDN is processing the call correctly by placing a test call from another phone to a VDN. Check vector steps for the correct call flow.

....

6 Verify that the following are administered correctly on the *CentreVu* Computer Telephony server device administration and the *DEFINITY* ECS:

- Agent extensions
- Phantom extensions
- VDNs to launch message calls
- Hunt group extensions for agent skills

Verify that the phantom extensions are administered correctly on the ICC/Message Care Common Administration Web page.

Verify that the Monitored Hunt Groups are correctly administered on the CTI Administration Web page.

Verify that the VDNs are correctly administered on the *Message Care* Mailbox Administration Web page.

....

7 Confirm that the mailbox has the correct VDN administered.

....

8 To redeliver the message call, drop the call.

   Result: *Message Care* will redeliver the message call.

E ND OF STEPS
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Control Window closes during a call

Description   In general, if the Caller Control Window closes during a call, the call is dropped. For a message call, this can happen, for instance, if the *Message Care* server reboots due to a power hit.

If the Agent Control Window closes while the agent is still staffed, the current call, if any, ends and the agent is logged out. The agent needs to log in from the Agent Login Web page again, then put the voice terminal into Manual-In or Auto-In work mode.

Action

Message Care will redeliver a message call because it was not specifically closed by an agent.

□

Connection lost message appears on the Agent Control Window

Description   A **Connection Lost** message appears in the text box of the Agent Control Window. A pop-up window also appears with the message **Your connection has been lost. Would you like to reconnect?** These actions indicate that the TCP connection between the agent's PC and the ICM server has been dropped, so the agent has no communication channel to *CentreVu* Internet Solution.

Action

1   Select the Yes button on the pop-up window. If there are no further error messages, there was probably a temporary LAN glitch.

2   Verify that the ICM server is up and the ICM application is running.

3   Troubleshoot LAN problems. Inspect all intermediary equipment (hubs, switches, routers) for errors. Check for excessive LAN congestion. To have the LAN inspected by a Lucent Technologies Network Consultant, contract your Account Executive.

E ND OF STEPS

Erroneous label on a control window button or text area

Description This indicates that the applicable string is missing from the resource file.

Action

1 Determine the language that is being used when the button label appears with erroneous data.

2 Go to the *itg/resources* folder located on the ICM server.

3 In the *itg/resources* folder, locate the resource file for the language that is causing the label to appear incorrectly (for example, *it/sources.txt*).

4 In the *resources.txt* file for the language that is causing the label to appear incorrectly, locate the key that is missing the string (perhaps by examining another resource file), and then enter the key=string pair in the correct language.

5 Save and close the *resources.txt* file.

6 Go to the Internet Call Manager Control window. In the text entry box, type **load resource lang-code**, where "lang-code" is the code for the language file that you updated. For example, "it" is the code for Italian.

END OF STEPS

CTI cannot connect to the *CentreVu* Computer Telephony server

Description   The CTI process log (*ctilog.txt*) on the *c:\itg* directory displays alarms when it is unable to connect with the *CentreVu* Computer-Telephony server. When this connection is not available, agents are not able to log in or out, and caller requests are not routed to agents.

The CTI process periodically attempts to reconnect with the server.

☐

No calls arrive at a new VDN

Description   A new VDN is added to the system (for example, for a new call type or to direct calls for a specific product), but no calls arrive at that VDN.

Action

1   Verify by way of the *DEFINITY* ECS administration that the new VDN has been assigned the same Class of Restriction (COR) as other Internet VDNs.

2   Verify that the VDN has been administered in the *CentreVu* Computer-Telephony Security Database. See *CentreVu* Computer-Telephony documentation for details.

3   For message calls, verify that the mailbox is administered with the correct VDN. Using the Snapshot Report, you can determine if messages have been retrieved from that mailbox.

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Attachment is lost or cannot be opened

Description   If a consumer composes a text only message using *Microsoft* Outlook
98 in an RTF format, then *Message Care* displays the text in the body
of the message and also claims that there is an attachment.

If a consumer composes a text message and attaches a file (attachment)
using *Microsoft* Outlook 98 in an RTF format, then *Message Care*
displays the text in the body of the message and claims that there is *no*
attachment.

Both of these issues are related. When a consumer sends a message in
an RTF format using *Microsoft* Outlook 98, the message is bundled in
the MIME type *application/ms-tnef*. *Message Care* does not understand
the *application/ms-tnef* MIME type thus, the incorrect behavior occurs.

To determine if a message is bundled in the MIME type *application/
ms-tnef*, look in the Message Care database.

Action   **Important!**   The following action will work only if your POP3
mail server, on which *Message Care* mail is received, is *Microsoft*
Exchange Server 4.5 or greater.

1   On the *Microsoft* Exchange POP3 server, do the following:

1.   Go to the mailbox in which you receive MIME type *application/
ms-tnef* messages.

2.   Double-click on the mailbox name to open the properties.

3.   Select the Protocol tab.

4.   Select POP3 (Mail), and then click on the Settings button.

   Result: The Protocol Details window appears.

....

2   From Protocol Details window, do the following:

1.   Select Enable POP3 for this recipient.

2.   Deselect Use protocol defaults.

3.   In the Message Encoding box, select MIME radio button and select the option Provide message body as plain text.

4.   Select Use *Microsoft* Exchange rich-text format.

5.   Select the OK button to accept the Protocol Details window changes.

6.   Select the OK button again to accept changes to the Mailbox.

   Result: **The mailbox is now ready to receive messages with the MIME type of application/ms-tnef.**

E ND   OF   STEPS
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Agent see many attachments

Description   If a consumer creates a mail message using a client that is capable of sending the message in HTML format, the message is likely to be identified as a MIME type of: *multipart/alternative*.

When *Message Care* receives such a message, it assumes that both message component types (text and HTML) are file attachments. Therefore, an agent receiving such a message will not see a text body but rather two attachment types—text and HTML.

Action   The agent must open the text message and copy and paste it into the *Message Care* Reply Web page. The information pasted into the *Message Care* Reply Web page will not be marked with the ">" signs, but the text will be wrapped.

☐

Message is identified as MIME type message/rfc822

Description   Sometimes, when a consumer forwards a message into *Message Care*, the message is identified as MIME type: *message/rfc822*.

Netscape Navigator browsers understand the MIME type *message/rfc822* and can open the message; however, *Microsoft* Internet Explorer cannot.

Action   If an agent is using *Microsoft* Internet Explorer and receive such a message, the agent must forward the message to a mailbox where it can be viewed by another email client or the agent must use the *Netscape Navigator* browser to view the message.

□

Mailbox administration changes did not take effect

Description Occasionally, due to caching issue relative to the IIS server, mail box administration changes are not always picked up at the next polling cycle.

If your administration changes are not being used, stop and restart the Lucent Mail Manager.

☐

No Phantom Extensions Administered alarm

Description
The Work Flow Manager (WFM) generates an alarm when no phantom extensions are administered. The WFM will automatically reduce the number of simultaneous calls allowed to zero to avoid repeatedly sending the No Phantom Extensions Administered alarm each time a new call launch is attempted.

The No Phantom Extensions Administered alarm generates an entry in the error log.

Action
If you receive the "NO PHANTOM EXTENSIONS ADMINISTERED" alarm, do the following:

1 Ensure that the Maximum Simultaneous Message Calls option (Message Care System Options Web page) matches the number of Phantom Extensions for Message Care (ICC/Message Care Common Administration Web page).

2 Ensure that all Phantom Extensions administered on the CTI process are also administered on the *CentreVu* CT server.

3 If the above administration options are correct, then there may have been an event that caused the CTI process to go out of sync with the *CentreVu* CT server or the WFM. To correct this condition, continue with the following steps.

....

4   The following procedure involves actions that can cause active calls to be dropped. Therefore, you may wish to gracefully shut down the WFM so that agents can complete processing of currently active calls. To gracefully shut down the WFM, do the following:

1.   Select the WFM Maintenance menu item to "Stop Call Launch". This choice drops all *Message Care* calls currently launched in the *DEFINITY* ECS, leaves active calls open, and stops new calls from being launched.

2.   When all active calls are dropped, continue with the following steps. Use either the WFM user interface Display-CallInfo drop-down menu item, CMS, or the *Message Care* Snap-shot report to determine when all active calls have finished processing.

....

5   Reinitialize the CTI Manager's Tserver Admin option. To do this, select the Update menu from the CTI Manager's GUI. From the Update menu, select Tserver Admin. This updates the administration options; however, all calls are dropped.

....

6   If reinitializing the CTI Manager's Tserver administration options does not correct the problem, restart the CTI process and the WFM. Restarting the CTI process and the WFM affects all active calls.

If you are running both *Message Care* and Internet Call Center, you may choose to wait until after hours to restart the CTI process.

E ND OF STEPS

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All Phantom Extensions Busy alarm

Description   The Work Flow Manager (WFM) generates an alarm when all phantom extensions are busy. The WFM reduces the maximum number of simultaneous calls by one to prevent the WFM from repeatedly attempting invalid call attempts.

The All Phantom Extensions Busy alarm generates an entry in the error log. For the "ALL PHANTOM EXTENSIONS BUSY" alarm, the error log indicates the new value of the maximum number of simultaneous calls. If the problem is deteriorating, the error log shows the maximum number of simultaneous calls gradually dropping down to zero.

Action   If you receive the "ALL PHANTOM EXTENSIONS BUSY" alarm, do the following:

1   Ensure that the Maximum Simultaneous Message Calls option (Message Care System Options Web page) matches the number of Phantom Extension administered for *Message Care*(this parameter is located in the ICC/Message Care Common Administration Web page).

2   Ensure that all Phantom Extensions administered on the CTI process are also administered on the *CentreVu* CT server.

3   If the above administration options are correct, then there may have been an event that caused the CTI process to go out of sync with the *CentreVu* CT server or the WFM. To correct this condition, continue with the following steps.

4   Reset the maximum number of simultaneous calls to its original value. To do this, enter the " **Maxcall X**" command (X=new value of the maximum number of launched calls) in the WFM text box. X must be a value less than the purchased *Message Care* capacity.

....

5   If you continue to receive the "ALL PHANTOM EXTENSIONS
BUSY" alarm, restart the WFM and CTI processes. To gracefully shut
down the WFM, see Steps 1–4 in the section called <u>Perform a graceful
shutdown: page 9-14</u>.

E ND OF STEPS
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The New Message Display page appears but there is no message content

Description   The New Message Display page appears but there is no message content. The Message Display URL parameter located in the Mailbox Administration Web page could have been administered incorrectly.

Action   If you receive the New Message Display page with no message content, do the following:

1   From the Mailbox Administration Web page, ensure that the Message Display URL is administered correctly .

   Result: All new messages will be correctly displayed to the agent.

2   From the Messages Table in the *Microsoft* Access database, ensure that the DeliveryURL database item is the same as the Message Display URL parameter administered in the Mailbox Administration Web page.

   Result: All previously received messages will be correctly displayed to the agent.

E ND OF STEPS

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CMS reports abandoned message calls or calls dropped at agent

Description   *Message Care* has an internal audit to drop message calls in the launched or active state when a specific threshold value is met. These values are controlled by parameters in the *parms.txt* file. The default values are: 7.5 hours for launched calls and 4 hours for active calls.

Action   If CMS reports are abandoning message calls or calls are being dropped at the agent, do the following:

1   To confirm that *Message Care* is dropping the call, examine the *Message Care* error log (*mcerror.log*) file. *Message Care* records when a all is dropped by this audit.

> **Important!**   The following parameters should only be changed with support from Lucent services personnel.

2   In the *Message Care parms.txt* file, check the values of the following parameters:

WorkFlowMan.AuditTimeLaunched
WorkFlowMan.AuditTimeActive

E ND OF STEPS

11   Error logs

Overview

Purpose   The purpose of the following information is to discuss *CentreVu* Internet Solution errors and error logs.

Audience   This information is intended for installers, administrators, agents, and anyone who uses the *CentreVu* Internet Solution.

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Message Care error logs

Overview An error is a problem condition that occurs that may lead to service problems. Some errors are stored for informational purposes only. To provide a record of events related to the processing of messages and the operation of the system, the *Message Care* software logs errors and other events. All message error log entries record the event and time the event occurred.

The *Message Care* logs include notice of communication problems between the *Message Care* software and another system, such as the ICM server or the POP3-compliant mail server. However, problems between other systems appear in the logs for those systems. For instance, a communication problem between the *DEFINITY* ECS and the *CentreVu* Computer-Telephony server appears in the *CentreVu* Computer-Telephony reporting system.

Errors can occur during the message handling flow process. In some cases when an error condition occurs, the *Message Care* software delivers an alarm email message to report the problem. The administrator can then take the necessary action to correct the problem.

Message Care **alarms**

In specific situations, *Message Care* will deliver alarms. The following list provides the alarms that the *Message Care* software delivers:

- Database full alarm

- Database 95% full alarm

- Database 90% full alarm

- Database 80% full alarm

- Unable to connect to POP3 host—invalid host name or password

- Unable to connect to POP3 host—unknown host

- POP3 server not responding

- Work Flow Manager lost connection to Mail Manager

- All Phantom Extensions Busy

- No Phantoms Administered

Error log files The error log file where *Message Care* application errors are logged is as follows: *\mcerrorlog.txt* file (where the default installation directory is: *c:\Program Files\MessageCare*).

Also, most of the *Message Care* processes keep a "trace" (or error) log for that process. The process trace logs are as follows:

- Mail Manager Process: *\temp\mungeerror.log*

- MsgCareDLL Process: *\temp\MimeDllError.log*

- Work Flow Manager Process: *\bin\wfm\wfmlog.txt*

Mail Manager error codes

The following are error codes used by the Mail Manager:

- **1002 SMTP failure**

- **1003** SMTP cannot initialize

- **1004** SMTP cannot initialize winsock

- **1005** SMTP out of memory

- **1006** Cannot resolve SMTP host name

- **1007** SMTP cannot allocate socket

- **1008** SMTP cannot bind socket

- **1009** SMTP host not responding

- **1010** Cannot send SMTP command

- **1011** SMTP host timed out

- **1012** Invalid SMTP handle

- **1013** Invalid SMTP option

- **1014** Another SMTP operation is in progress

- **1015** SMTP aborted

- **2001** Messages database full

- **2002** Messages database 95% full

- **2003** Messages database 90% full

- **2004** Messages database 80% full

- **2100** Unable to connect to POP3 host -- invalid host name or password

- **2101** Unable to connect to POP3 host -- unknown host

- **2102** POP3 server not responding

- **2200** Timer expired before polling was completed

- **3000** Too many attachments on message

- **3001** Acknowledgment file for mailbox does not exist or is a directory

The database limits in errors 2001 through 2004, above, may change.

Message Care **DLL error codes**

Error codes 1002 through 1015 are used by the Message Care Dynamic
Link Library (DLL).

Mail Test Tool error codes

Error codes 1002 through 1015 are used by the Mail Test Tool.

Simple Mail Transfer Protocol error codes

Error codes defined by the Simple Mail Transfer Protocol may be
included in error messages 1002, 1012, and 1015.

These include the following, which are taken from RFC 821 (SMTP):

- 421, Service not available, closing transmission channel (this may
  be a reply to any command if the service knows it must shut
  down)
- 450, Requested mail action not taken—mailbox unavailable
  (mailbox busy)
- 451, Requested action aborted—local error in processing
- 452, Requested action not taken—insufficient system storage
- 500, Syntax error, command unrecognized (this may include
  errors such as command line too long)
- 501, Syntax error in parameters or arguments
- 502, Command not implemented
- 503, Bad sequence of commands
- 504, Command parameter not implemented
- 550, Requested action not taken: mailbox unavailable (mailbox
  not found, no access
- 551, User not local; please try < **forward-path**>
- 552, Requested mail action aborted—exceeded storage allocation
- 553, Requested action not taken—mailbox name not allowed
  (mailbox syntax incorrect)
- 554, Transaction failed

Please see the *Message Care* Installation CD-ROM for additional error
codes.

Viewing the error logs

Error logs can be viewed using a simple text editor (for example,
WordPad).

Recoverable and non-recoverable delivery failures

Whenever there is a recoverable delivery failure, *Message Care* will try to redeliver the message until it succeeds. Whenever there is a non-recoverable delivery failure, *Message Care* will record an error log entry for non-recoverable delivery failures but will not attempt to redeliver the message. The log will record the *DEFINITY* ECS extension where the call was delivered, the agent ID if available, the called number, any ASAI digits associated with the call, and any error conditions received from *DEFINITY* ECS, including any J-TAPI provider proprietary data.

Recoverable delivery failures

Your vectors may disconnect message calls due to designed queue limits. When a call failure of this type is encountered, the *Message Care* software repeatedly continues trying to deliver the message call.

A message retry is initiated after a 15 minute delay. When retrying a message call, the *Message Care* software launches the call using the same call setup parameters, dialed number, and any Adjunct/Switch Applications Interface (ASAI)-provided digits. A retried message will be placed in the overflowed queue based on its retrieval time.

The following are the known recoverable message call delivery errors that will result in *Message Care* launching message calls repeatedly until success:

- No available resources to initiate message calls
- *DEFINITY* ECS returns busy condition
- *DEFINITY* ECS vector processing drops call
- Message call dropped by a *Message Care*-enabled agent without a reason code

Non-recoverable delivery failures

Other conditions, such as the call being routed off-switch repeatedly, have a limited number of retries and are not tried indefinitely.

The *Message Care* software stops trying to deliver a message call after the message call has received three non-recoverable call delivery errors that are encountered in consecutive call attempts. For example, if you incorrectly administered the number to call and the message call repeatedly failed to be delivered by the *DEFINITY* ECS, *Message Care* will stop launching this message call after three tries.

When this occurs, the message will be placed in the failed state and no further attempts will be made to launch message calls relative to a failed message.

Failures need not be the same. For example, if the first call attempt was rejected due to an invalid number and the next two calls result in the call being routed off-switch, then the message will fail. Messages in the failed state can only be manually retrieved by an agent since the *Message Care* software will not try any further automatic deliveries.

The following are the known non-recoverable message call delivery errors that can result in the *Message Care* software placing the message in the failed status state:

• Message call routed off the *DEFINITY* ECS

• Message call answered and dropped by an agent not logged into the *Message Care* software

• Dialed number not valid

Message handling flow process errors

Introduction

Errors can occur during the message handling flow process.

The following three cases are when alarm occurs:

- When the database is reaching its capacity
- When there is a loss of Mail Manager functionality
- When the maximum number of message calls are reduced due to lack of available resources

For a detailed description of the message handling flow process, see .

Error handling process

The following steps describe the errors that can occur in the message handling process:

1 A consumer sends a message to the call center.

2 Consumer messages arrive in the monitored mailboxes at the call center.

2100Invalid Password error: If *Message Care* is denied access to a mailbox due to an invalid password, an error condition will be reported immediately. The *Message Care* software will continue to attempt to access the mailbox.

If the customer corrects the administered password in the mail system, the *Message Care* software will gain access on the next attempt without the customer having to restart the *Message Care* software.

3 The *Message Care* software detects the consumer's arrived message by polling an administered list of mailboxes at the specified interval (every five minutes is the default).

Polling Interval error: *Message Care* polls each mailbox on specified interval. This means that there is a minimum of the specified interval from the start of one polling cycle to the start of the next polling cycle. If the polling cycle takes longer than the specified interval (for example, too many messages to process), then the next polling cycle starts as soon as the last one ends. In this last case, *Message Care* logs an error.

The *Message Care* software continues to poll a mailbox at the specified interval even if polling failures occur. An error is recorded each time a polling failure occurs.

You should periodically check the errors. If there are too many of these errors, you may have a performance problem on your system.

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4 The *Message Care* software copies the message into an Open Database Connectivity (ODBC) database.

....

5 The *Message Care* software automatically sends an acknowledgment (if Auto Acknowledgment is administered) to the consumer, indicating that the message has arrived and provides its tracking number.

Auto-Acknowledgment Text File Not Found error: If the administered text file for an auto acknowledgment message is not found, no acknowledgment will be sent and an error will be logged. The error event will identify the receiving mailbox.

Auto-Acknowledgment Delivery Failure error: An error will be generated if the *Message Care* software is unable to deliver an auto-acknowledgment to the SMTP server for delivery. The error will identify the message through its tracking number. Message processing will continue even if the auto-acknowledgment cannot be sent.

The *Message Care* software gives up after a period of time in its attempt to send an auto-acknowledgment to the SMTP server, logs the error, and continues to deliver the message to the agent.

Failure to Submit a Message to the SMTP Server error: The *Message Care* software waits to submit a message for delivery to the SMTP server. Then, if the message cannot be submitted, the *Message Care* software informs the agent that the message submission failed and records an error in the error log.

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6 The *Message Care* software initiates a call to the *DEFINITY* ECS, using the Vector Directory Number (VDN) administered for the receiving mailbox. If incoming messages exceed the administered system resources to launch message calls, the *Message Care* software holds the messages in Overflowed state and initiates calls for them as resources become available.

....

Message Call Routed Off the DEFINITY: A message's status is set to failed if three consecutive message calls relative to the same message are routed to an invalid VDN (either not administered or off the *DEFINITY* ECS serviced by the *CentreVu* Computer-Telephony server).

Any time a message call is routed to an invalid VDN, the *Message Care* software will release the message call.

In this case, the *Message Care* software has no information about the destination station, nor can it deliver a message to an agent or person off its native switch. Therefore, the *Message Care* software releases the phantom call and attempts a call retry. After three unsuccessful retries, the *Message Care* software will register the message as a failed message.

Calls may be routed off the *DEFINITY* ECS either when the call attempt is first made or when an agent decides to transfer the message call.

The error log will record the called number and any ASAI provided digits associated with the call.

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7 *CentreVu* CMS begins tracking the message when the *DEFINITY* ECS launches the phantom call, using its assigned VDN.

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8 The *DEFINITY* ECS selects an available agent according to the vector associated with the assigned VDN, and sends the phantom call to the agent's telephone. When the agent answers, the *CentreVu* CT sends a call-answered notification to the *Message Care* software.

Dialed Number Not Valid: This is a non-recoverable delivery failure.

Call Answered and Dropped by an Agent Not Logged In error: If an agent is logged in to the *DEFINITY* ECS but not logged in to the *Message Care* software, a message call will be delivered to the agent, but no page pop will appear.

The agent should then log in to the *Message Care* software. The *Message Care* software will retry the message call delivery, increment the retry counter, and place the message in the overflow message state.

When a message call is answered by an agent not logged into the *Message Care* software, the history log will record the extension, and agent id if available.

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9 When the *Message Care* software receives the call-answered notification, it delivers the message to the agent through a PagePop:

1.   The *Message Care* software supplies the agent's browser with the Uniform Resource Locator (URL) associated with the received the consumer's message. This URL calls a Common Gateway Interface (CGI) script.

Invalid URL error: If the customer-administered URL, for either Display or View, is invalid, the agent receives an error indication. If the URL is incorrectly administered to an invalid entry, the browser displays the error message to the agent. One example of such an error message is: "The requested object does not exist on this server. The link you followed is either outdated, inaccurate, or the server has been instructed not to let you have it." Other displayed errors include "Error 404." If this occurs during message processing, the agent should probably drop the message call through the voice terminal or the Agent Control Window. The *Message Care* software will process the message as if a *Message Care*-enabled agent dropped a message call without a reason code. The message call will be retried at a later time.

If an agent receives a message call with an invalid URL, the agent should be instructed to alert the supervisor. A VDN of origin announcement, may help the agent identify the mailbox with the invalid URL.

2.   The *Message Care* software supplies parameters to the CGI script, specifying the message components to display. This script then accesses the ODBC database of messages, retrieves that set of components from the consumer's message, and dynamically generates a Web page.

3.   If the message includes attached files, such as a fax image, the *Message Care* software lists the attachments. Helper applications administered in the agent's browser provide access to these attachments.

The customer must provide the appropriate helper applications for each agent, based on the types of messages that agents are expected to receive. For instance, agents who process faxes must have a helper application for viewing and handling faxes.

4.   The agent handles the message, using the processing options supplied on the Web page, one of which allows the agent to suspend processing of a message for a specified period of time.

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This option can free an agent to handle more urgent matters, such as increased volume in real-time calls. It is also useful when the agent is waiting for information from a subject-matter expert.

If the agent does not manually retrieve the suspended message within the specified period of time, the *Message Care* software returns the message through a call. The customer should set up a coverage vector to handle cases when the suspension timer expires and the agent is not logged in, or disregards the message call. This way, the customer need not rely on the agent to remember to retrieve the suspended message; the *Message Care* software handles it automatically. See .

....

10   The *Message Care* software submits the agent's reply for delivery by a mail server, using SMTP protocols. It also stores a copy of the reply in the message database, linked to the original incoming message.

The agent marks the disposition of the message on the Web form, according to a set of closure codes administered, and *Message Care* releases the call.

Call Dropped without a Completion Code error: If after waiting to receive an agent notification, no completion code is marked, the following is recorded:

• The *DEFINITY* ECS extension where the call was delivered

• The agent ID (if available)

• The called number

• Any ASAI digits associated with the call

• Any error conditions received from *DEFINITY* ECS, including any J-TAPI provided proprietary data

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11   The following two errors can occur when the agent attempts to retrieve a message

• **No facilities Are Available to Retrieve a Message** error: If an agent requests a message retrieval and no facilities are available to launch a message call, the *Message Care* software records the event in the message history and increments the retry counter. The message is then placed at the top of the overflow queue.

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- **No Number to Call for a Retrieve Request** error: If an agent requests a message retrieval and no VDN has been defined to call, the *Message Care* software records the error and alerts the agent of the error condition.

Log files on the ICM server

Location of log files on the ICM server

The ICM log file (*icmlog.txt*) is located in the *c:/itg* directory.

For more information about the ICM server log file, see <u>Log files on the ICM server: page 9-4</u>.

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Log file for the CTI process

Location of CTI process log file

The log file (*ctilog.txt*) is located in the *c:/itg* directory.

For more information about the CTI process log file, see .

☐

Glossary

A   ACD

Automatic Call Distribution—A switch feature that distributes incoming calls to
available agents.

Active Agent

A call center employee who is processing a call.

Agent

A call center employee who services calls from the call center's customers.

Agent Control Window

The *CentreVu* Internet Solution Control Window downloaded to the agent's
browser.

Agent Mailbox

A *Message Care* monitored mailbox used to collect messages which need to be
serviced by a specific agent. Messages in an agent mailbox originate from either a
direct correspondence between a consumer and an agent or from replies to inquiries
from another agent. Any message arriving in an agent mailbox is delivered to the
agent through a direct agent message call, thus collecting Call Management (CMS)
statistics.

Alarms

Notifications generated when certain threshold conditions are met for an error
(contrast with Error).

ANI

Automatic Number Identification—A telecommunications industry term referring
to knowledge of the calling party's number.

Applet

A small application that is downloaded from the Internet and executed in a browser
on a desktop.

Archive Database

Contains only closed messages. As the Current database reaches its storage limit, the system administrator moves closed messages to the Archive database (see *Current Database*).

ASAI

Adjunct/Switch Applications Interface—Lucent's Computer Telephony Integration (CTI) offering or recommendation for interfacing data adjuncts and communications systems. ASAI supports activities such as event notification and call control.

ASAI Phantom Call

A phantom call is a call placed through ASAI as a third_party make_call. A phantom call is originated from a non-physical device and may be placed anywhere. In all other ways, a phantom call is treated like a voice call.

ASCII

American Standard Code for Information Interchange—A binary code for text as well as communications and printer control. It is used for most communications and is in the built-in character code in most minicomputers and all personal computers.

AWOH

Administered Without Hardware—A station from which a *DEFINITY* ECS can send a call, even though there is no physical telephone.

B BCMS

Basic Call Management System—A *DEFINITY* ECS feature that provides a variety of measurements that may be used to monitor the ACD.

C Call Center

A business that provides service to its customers through agents. Traditionally, requests for service have come through the use of the telephone, but modern technology has broadened that channel to include fax, voice mail, email, and the Internet.

Caller

A call center's customer; the person requesting contact with an agent.

CGI

Common Gateway Interface—The programming interface for executing programs on Web (HTTP) servers. CGI defines the structure for passing data from the server

to the server's gateway program, which does the processing, and returns the results
from the gateway program to the HTTP server back to the requesting client.

CGI Script
A program that is run on a Web server, triggered by a request from a browser.

CMS
CentreVu Call Management System—An application which runs on an adjunct
processor to collect, store, and report call statistics from the ACD. CMS enables
call centers to monitor and manage their operations by generating reports on the
status of agents, splits/skills, trunks, trunk groups, vectors, and VDNs.

CODEC
COder/DECoder—An electronic circuit that converts audio or video into digital
code, and vice versa. An example of a codec is an analog/digital and digital/analog
converter. A codec can also be software that converts packets or streams from one
protocol to another.

Consumer
A call center's customer; the person requesting contact with an agent.

CTI
Computer Telephony Integration—The integration of services provided by a
computer and a telephone (data adjuncts and communication systems).

Current Database
Contains all messages that are being processed. Depending on the size of the
current database, it can also contain some closed messages. As the current database
reaches its storage limit, the system administrator moves the closed messages to the
Archive database (see *Archive Database*).

D   **Designer Reports**
CentreVu Supervisor reports that are developed by Lucent associates and generally
sold to customers. *Message Care*-specific Supervisor reports are specially tagged
to appear and run even if the Report Designer feature is not purchased.

DNIS
Dialed Number Identification Service—An ACD capability that enables calls to be
routed based on the number dialed by the caller.

Drill Down
To move from summary information to the detailed data that created it.

E   EAS

Expert Agent Selection—A *DEFINITY* ECS feature that provides a group of capabilities, including assigning skills to VDNs and agents. This is a skills-based form of call routing.

ECS

Enterprise Communications Server—A *DEFINITY* switch providing features and capabilities specially designed to enhance call center operations.

Email

In the *Message Care* environment, email includes messages of any media type, including, but not limited to, text-based messages that can originate through forms filled out by consumers by way of Internet Web pages or free-formatted messages sent to general Internet addresses supported by business.

EPN

Expansion Port Network—A *DEFINITY* ECS cabinet that holds *DEFINITY* ECS circuit packs. This cabinet may be attached to the Processor Port Network (PPN). The cabinet that houses the switch processing element by way of fiber or DS1.

Error

A problem condition that occurs which may lead to service problems. Some errors will be stored for informational purposes only. Other errors can lead to an alarm being generated if certain threshold conditions are met (contrast with alarms).

Ethernet

An industry standard, high-speed data network protocol commonly used in a LAN environment.

F   Firewall

A network node set up as a boundary to prevent traffic on one segment from crossing over to another segment based on a set of administered rules. Firewalls are used to improve network traffic as well as for security purposes. A firewall may be implemented in a router or it may be a device specialized for such purposes.

Forward Message

Used to refer to a message that is forwarded by an agent to another person (for example, a subject matter expert [SME] or an agent) through email. Messages are forwarded to other people to request assistance in composing a reply to a consumer request.

Frame

A portion of a Web page that can change without a change in the URL.

Free-formatted Email

Any message generated by a consumer using their email client. The format of such a message cannot be predicted and may include file attachments.

H ### Hacker

A person who tries to gain unauthorized entrance into a corporate network for the purpose of theft, malicious destruction, and/or amusement. A hacker may try to gain access to computer systems by electronic or brute force means.

HTTP

HyperText Transport Protocol—The client/server protocol used to connect to servers on the World Wide Web. Addresses of Web sites begin with an *http://* prefix.

Hunt Group

A group of trunks/agents selected to work together to provide specific routing of special purpose calls

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I ### ICC

Internet Call Center—An offer that provides a caller with the ability to communicate with an agent over the Internet. Communications can take place by way of Text Chat, Internet telephony, PSTN Callback, and/or by collaboratively browsing the Web.

ICM Server

Platform from which the ICC *Java* applets are served and where the *Java* call control code executes.

IIS

Internet Information Services—A *Microsoft* software package that runs on a *Microsoft* NT server and allows it to perform Web server functionality, among other services.

IMAP4

Internet Message Access Protocol, version 4—An evolving Internet client email access protocol, rapidly gaining in popularity.

Inbound Message

A message received by the call center and processed by *Message Care*. Typically,

these messages will originate from the consumer, but they may also originate from
another associate within the call center (for example, an SME or an agent).

IP
Internet Protocol—The underlying protocol used to pass data from one Internet
host to another.

ISDN
Integrated Services Digital Network—International telecommunications standard
for transmitting voice, video, and data over a digital communications line.

J *Java*
A cross-platform programming language developed by *Sun Microsystems*.

JTAPI
JAVA telephony Application Programming Interface.

L **LAN**
Local Area Network—A short-range data communication network linking
computers and peripherals, such as printers. Ethernet is a common LAN protocol.

Launched
The status of a message, once a call has been launched to *DEFINITY* ECS and is
waiting to be answered by an agent.

M **MACS**
Multimedia Applications Customer Support——A group of engineers within
Lucent Technologies who perform pre-sale, installation, and post-sale escalated
support for the ICC and MultiMedia Communications eXchange (MMCX).

MAPD
Multi-Application Platform—An open platform which allows direct integration of
applications into the *DEFINITY* ECS product line and which also provides
integrated connectivity to 10BaseT legacy LANs.

Message
Email retrieved by the POP3 protocol from a mail server. The POP3 protocol does
not limit the types of files that may be contained in a message body. Traditionally,
email is considered to be text; however, it may also be a fax.

Message Call

A message call is a call (associated with a message) that is launched to the *DEFINITY* ECS. A message call remains active in the *DEFINITY* ECS while you are processing the associated message. A message call ends when you close or suspend the associated message.

Message Care

The software application responsible for monitoring customer-administered mailboxes for message arrival and delivery of these messages to agents. *Message Care* also provides functionality for the agent to use in responding to messages.

***Message Care* Administration**

Customer-defined options administered through browser based administration Web pages.

***Message Care*-Enabled Agent**

An agent that has successfully logged into the *Message Care* application. A *Message Care*-enabled agent can be identified by their agent ID and IP address.

Message History

The message history generated by *Message Care* tracks state status changes and events associated with each processed message.

Message Response

A message received in a POP3 mailbox, monitored by *Message Care*, that was sent in response to an existing message (that is, a received message that already has a tracking number associated with it in the subject line). Message responses can be received from either consumers or from SMEs. Consumers may reply to an auto-acknowledgment or an agent-generated message. SMEs respond to inquires sent by agents.

MIME

Multi-purpose Internet Mail Extensions—A relatively recent extension to the text-only Internet email definition allowing multimedia email content. MIME enables file attachments in Internet email.

N   NIC

Network Interface Card—A circuit board inserted into a computer to allow communication with other systems on a network or access to a network.

O   ODBC

Open Database Connectivity—A *Microsoft* defined Open Interface for accessing

most commercial databases.

Original Message

The original message is a new service request received from a consumer to be processed by the call center (the customer). Original messages may result in outbound messages being sent to both SMEs and the consumer. Additionally, original messages may result in received response messages (for example, a consumer may elect to reply to a received message from the agent). Both these outbound and received responses will be linked to the original message. Original messages are identified by the lack of a *Message Care* generated tracking number in the received message subject header.

Outbound Message

A message sent by the agent to either a consumer or an SME. Replies are outbound messages providing the consumer with either the answer to the their question (see *Reply*) or a status update. Outbound messages to SMEs are requests for information.

Overflowed

A message status state. Messages in the Overflowed state are waiting to be launched as a call to *DEFINITY* ECS. For example, if there is a lack of facilities to launch a message call, then that message will sit in the Overflowed state.

P   **PagePop**

A feature that automatically displays Web pages to the caller and/or agent based on call events (for example, call queued, call answered, and so on).

PBX

Private Branch eXchange—A customer premises telephone-switching system that interconnects telephone extensions to each other as well as to the outside telephone network.

Ping

Software command that can test data connectivity to a remote system.

PSTN

Public Switched Telephone Network—The traditional medium for telephone communications.

Purchased Designer Reports

CentreVu Supervisor Designer reports that are developed by Lucent associates and generally sold to customers. *Message Care*-specific Supervisor reports have been specially tagged to appear and run even though the Report Designer feature has not

been purchased.

R   Received Message

A message, either an original message or a response message, that has been retrieved from the POP3 server.

Related Message

A message that is related to an original message. Related messages include replies sent by the agent to the consumer, responses received from the SME, messages sent to SMEs, or follow-up questions received from the consumer. Related messages are identified by a shared tracking number stored in the message subject field.

Reply

An outbound message sent to a consumer by an agent.

RONA

Redirection on No Answer—If an agent does not answer the message call, RONA redirects it to other coverage.

S   Site Identifier

A numeric value (four digits) assigned by the call center to be appended to a message's tracking number. For example, Trk # 12345678-1111 (see *Tracking Number*.)

Skills Mailbox

A *Message Care* monitored mailbox used to collect messages which are to be serviced by any member of that skills group. *Message Care* monitors a skills mailbox and collects the messages for delivery to the agent skills group. These messages may originate from a consumer or be the response to a forwarded message from SMEs within the call center (see *Agent Mailbox*).

SME

Subject Matter Expert—An associate within the call center who is consulted by a call center agent for assistance in creating a consumer reply.

SMTP

Simple Mail Transfer Protocol—The standard machine to machine (server to server) Internet electronic mail protocol. *Message Care* uses SMTP to submit a message to a mail server for delivery to the consumer.

Supervisor

The person in charge of watching and directing the operation and course of action

of the call center's agents.

System Administrator

A call center associate who successfully entered the system administration password and is, therefore, awarded administrative privileges. These privileges include, but are not limited to mailbox administration and all functional available to a supervisor (contrast with *Supervisor*).

T   TCP

Transmission Control Protocol—A protocol that enables different computer hardware and operating systems (such as PCs, Apple computers, UNIX workstations, and mainframes) to communicate.

Telephony Server

CentreVu Computer-Telephony. This software interprets proprietary CTI signaling and converts it into an industry-standard TSAPI and/or JTAPI interface to the LAN.

TSAPI

Telephony Services Application Programming Interface—A telephony programming interface based on the international CSTA standard. TSAPI is designed to interface a PBX with a server to provide interoperability between PCs and telephone equipment.

U   UDP

User Datagram Protocol—A TCP/IP protocol used to transmit data on data networks; commonly used to transmit Internet telephony voice packets.

URL

Uniform Resource Locator—Address used to locate information on the World Wide Web.

UUencode

A UNIX utility that encodes data into 7-bit ASCII for communications over the Internet, which only supports seven bits. The UUencode utility then converts UUencoded data back into its original 8-bit format. Programs such as these are used to transmit proprietary file formats, documents, databases, spreadsheets, and binary executable files, as well as text files that use the full eight bits of the byte.

V   VDN

Vector Directory Number—A switch extension that provides a software link

between trunk groups and vectors, enabling incoming ACD calls to be processed
by specified vectors.

Vector

A list of steps that process calls in a user-defined manner. The steps in a vector can
send calls to splits/skills, play announcements and music, disconnect calls, give
calls a busy signal, or route calls to other destinations. Calls enter vector processing
via VDNs, which may have received calls from assigned trunk groups, from other
vectors, or from extensions connected to the switch

VOA

VDN of Origin Announcement—An identifying message sent by *DEFINITY*
Generic 2 ECS to an agent about the source of an incoming call so that the agent
knows how to answer the call.

Voice Terminal

Another term for a telephone.

W   **WAN**

Wide Area Network—A network usually connecting Local Area Networks
(LANs).

Web

A shortened term for the World Wide Web; the body of information available on
the Internet. Also called WWW.

Web Page

A display created with HTML (HyperText Markup Language), the standard
language for displaying information on the World Wide Web.

Work Mode

One of several different states an agent can be in while logged into a call center.
Work modes include Auto-In, Manual-In, Auxiliary, and After Call Work (ACW).

WWW

World Wide Web—The body of information available on the Internet. Also
referred to as "the Web."

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