



Oracle® Contact Center Anywhere Network Manager Guide

Version 8.1.2

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1

What's New in This Release

What's New in Oracle Contact Center Anywhere Network Manager , Version 8.1.2

Table 1 lists changes described in this version of the documentation to support release 8.1.2 of the software.

Table 1. What's New in *Contact Center Anywhere Network Manager Guide*, Version 8.1.2

Topic	Description
Identifying CCA Media Types on page 9	Added the new SMS media type to the list of CCA media types.
About CCA Shared and Dedicated Resources on page 10	Added information about the SMSC Gateway Server.
Shared Resources on page 10	Provided additional information about shared resources. Added information about the SMSC Gateway Server.
Dedicated Resources on page 13	Added information about the SMS server.
Launching Network Manager on page 21	Revised procedure for creating a Windows shortcut to Network Manager.
Database and File System Definition on page 22	Introduced Dual Database Configuration and how to configure this feature.
Configuring a JDBC Connection for an SMSC Gateway Resource on page 23	Added information about JDBC connection configuration.
Changes to Host View Menu Items on page 30	Added the menu item, Verify Status about the list of available items in the menu.
About Host Manager on page 33	Added Host Manager.
Adding an SMSC Gateway Server Resource on page 54	Added information about the SMSC Gateway server resource.

Table 1. What's New in *Contact Center Anywhere Network Manager Guide*, Version 8.1.2

Topic	Description
Adding a SMS Server Resource on page 66	Added information about the new SMS resource, which is used by Network Manager to handle SMS interactions.
Chapter 9, "Starting Resources"	You can start Masters and Backups separately using the Start All function, which enhances server predictability and, in some cases, results in a server.
Verifying Status on page 73	Added the Verify Status topic to the Using Diagnostic Tools chapter.

2

Introduction

This chapter describes the purpose of Oracle Contact Center Anywhere Network Manager and identifies its components. It includes the following topics:

- [Network Manager Overview on page 9](#)
- [Identifying CCA Media Types on page 9](#)
- [About CCA Shared and Dedicated Resources on page 10](#)
- [Shared Resources on page 10](#)
- [Dedicated Resources on page 13](#)

Network Manager Overview

Network Manager is the control center for the call and data processing components of the contact center. Contact Center Anywhere (CCA) consists of distributed server applications or resources that perform specific duties in the operation of the contact center using a network-based inter-resource communications.

You can view, manage, and control distributed resources from a central console. More specifically, you can:

- Add, configure, and delete resources for CCA companies
- Configure telephony boards for handling CCA interactions for voice and fax in a Dialogic environment
- Set up least-cost call routing schemes for companies
- View the real-time status of all CCA resources
- Start, shut down, and initialize CCA resources
 - Start all shared resources
For more information on shared resources, see [Shared Resources on page 10](#).
 - Start all dedicated resources.
For more information on shared resources, see [Dedicated Resources on page 13](#).)
- Set alarm policies for failing resources
- Set backup policies for all resources

Identifying CCA Media Types

Network Manager controls the following media types:

- Phone Calls (VoIP, TDM, IVR, Outbound)
- Web Chat
- Email
- Fax
- Voice Mail
- Web and ACD Callback
- SMS

About CCA Shared and Dedicated Resources

There are two types of CCA resources: Shared and Dedicated.

- Shared Resources are resources that many different companies can use.
- Dedicated Resources are resources that are exclusive to a single company.

[Table 2](#) lists the Shared and Dedicated Resources.

Table 2. CCA Shared and Dedicated Resources

Shared Resources	Dedicated Resources
Contact Center Server on page 11	ACD Server on page 13
CTI Bridge on page 11	Chat Server on page 14
License Server on page 11	CTI Server on page 14
MCU Server on page 12	Email Distributor on page 14
MP3 Converter on page 12	IM Server on page 15
Music Server on page 12	IVR Server on page 16
Redirect Server on page 12	Predictive Server on page 17
SNMP Agent on page 12	Schedule Server on page 17
Unified Messenger on page 13	Statistics Server on page 17
SMSC Gateway Server on page 13	SMS Server on page 17

Shared Resources

The following topics provide additional information about each of the shared resources. For more information about the types of resources, see [About CCA Shared and Dedicated Resources on page 10](#).

Contact Center Server

The Contact Center Server is the interface between the telephony server resources and the other application resources. The Contact Center Server controls all voice, fax, and IVR routing capabilities. It reads ANI and DNIS information for use by other resources when making routing decisions. It also bridges calls to selected agents.

It performs the following functions and controls all:

- Voice
- Fax
- IVR Routing capabilities

The Contact Center Server reads ANI/DNIS to provide information to other resources for routing decisions and bridges calls to selected agents.

CTI Bridge

The CTI Bridge (an optional shared resource) allows the bridging of calls across hardware resources in the Dialogic environment.

The CTI Bridge is used in situations where multiple boxes are linked together by means of an ATM and therefore requires that the ATM connection and the appropriate configuration files be set up before the Bridge can function.

License Server

The License Server performs real-time tracking of the number of active interactions for each company in CCA, and enforces the Interaction limits imposed by each company's license.

The License Server performs the following tasks:

- **Company License Management:** Blocks any Interactions arriving for a Company in excess of the maximum simultaneous Interactions allowed for that Company (configurable in the Administration Manager).
- **System-wide License Management:** Blocks any Interactions in excess of the maximum allowed for the entire system (all companies).
- **Resource Status tracking and Automatic Resource Backup:** Tracks which resources are running or are absent. Promotes Backup resources to Master status in the event that a Master resource fails or is deactivated. The longest running of two identical resources is always made the Master in the event that the License Server must make this distinction.
- **Resource Status Reporting:** Accepts verify resource status requests from Network Manager and verifies the status of running resources for reporting back to Network Manager.
- **Email Notification of License Usage:** The License Server is responsible for Email notification of license usage. This is based on parameters and thresholds set at implementation.

- **Data Retention:** License Server also involves in data retention function by sending a message to the Web server to call the compression/purging functions.

MCU Server

The MCU Server supports voice conferences and call monitoring. MCU Server is responsible for creating and managing conference resources to be used by outside callers and CCA agents. Conference resources are used for establishing conference calls, and for Contact Center Anywhere Supervision Manager functions such as listen, whisper coach and join.

MP3 Converter

MP3 Converter is responsible for converting voice recordings from WAV format to MP3 format. This conversion increases the capacity for storing voice recordings on the CCA file server.

This service should be loaded on the File Server Host and requires a third party piece of freeware that must be downloaded (LAME.EXE). It issues a strong reminder of this placement when the selection is made from the Resource Mode drop-down control.

Music Server

The Music Server (an optional shared resource) is responsible for playing music (RTP music stream) to callers who have been placed on hold, or are waiting in a queue.

Redirect Server

The Redirect Server (an optional shared resource) is responsible for matching calls coming into VoIP gateways to contact center resources.

The Redirect Server redirects SIP INVITE messages to a contact center server with available RTP Streams. It is used for load balancing. If you choose to deploy this service, you should utilize two or more contact center servers to be effective.

The Redirect Server only considers contact center resources that are specifically used in by the Redirect Server. If no contact center resources are specifically used by the Redirect Server then no calls handled by the Redirect Server will reach a contact center resource.

SNMP Agent

The SNMP Agent (an optional shared resource) monitors and provides (to a connected SNMP Browser) data for all CCA objects defined in Oracle Management Information Base.

SNMP Agent facilitates Simple Network Management Protocol. This allows for the use of SNMP capable applications for monitoring the CCA system.

Unified Messenger

The Unified Messenger works with Email Server to perform two primary functions:

- The movement of Voice Mail and Faxes with errors
- The movement of emails that have an error.

The Unified Messenger attaches a WAV or TIFF file as email attachments, when needed.

SMSC Gateway Server

The SMSC Gateway Server (an optional shared resource) communicates through Short Message Peer-to-Peer (SMPP) to the external SMSC and inward to the CCA SMS server.

Dedicated Resources

The following topics provide additional information about each of the dedicated resources. For more information about the types of resources, see [About CCA Shared and Dedicated Resources on page 10](#).

ACD Server

The ACD Server prioritizes and distributes interactions to CCA workgroups and agents, and tracks the availability of agents. It holds all project routing information for the assigned company and determines which available agent is best suited for the interaction. It also performs these high-level activities:

- **Determines Agent Scores:** The ACD Server determines the agent score based on the workgroup skill weightings and agent skill ratings. The score is used to determine the best available agent to handle the interaction.
- **Handles New Interaction Event:** Each multi-media interaction is presented to the queue for handling and distribution.
- **Handles Available Agent Event:** Agent Events are dynamic and must be factored into the decisions regarding agent availability by the ACD Server. Examples of agent events are:
 - An agent finishes an existing call or an interaction
 - An agent goes or returns from a break
 - An agent logs in
 - An agent changes his status to On Break
 - An agent is available for a chat session
 - An agent is available for an email session

- **Handles Database Change Event:** Administrators can add, change, and remove workgroups; assign and remove agents; and change workgroup skill weights and agent skill ratings. These changes are dynamic and, when messages are sent, the ACD Server must be able to handle these changes by adjusting the queues and agent selection without the need to restart the ACD Server.
- **Manages Workgroup Overflow:** The ACD Server checks for overflow conditions in all workgroups every 5 seconds. If the length of time a customer has been waiting in a workgroup queue exceeds the maximum specified by the administrator, or if the number of queued interactions exceeds the maximum by agent or by workgroup queue, the ACD Server implements the overflow action specified by the administrator. These overflow actions can include incrementing an interaction priority, expanding the workgroups, or routing the call to a project menu.
- **Manages Interaction Priorities:** Network Manager utilizes a 1-5 priority scheme (very high to very low). The project (default) with which the interaction was initially associated defines the interaction's initial priority. This priority can be overridden by the customer priority associated with a known customer. Overflow can further change the priority of an interaction dynamically. The ACD Server uses priority levels to order the interactions in the queue for handling.

Chat Server

The Chat Server works with the Interaction Manager Server and ACD Server to route customer chat requests to agents. It maintains a timer for the agent to accept the interaction and communicates with the Host Manager Stat Server to save a transcript of a customer's chat message to the customer's history in the database.

CTI Server

The CTI Server acts as an interface between telephone network resources and the software interface. It performs the following functions:

- Manages all available telephony resources
- Acts as the system brain, determining what to do with the available resources
- Determines which contact center resources the company has access
- Determines what contact center to connect incoming and outgoing calls for a specific agent

Email Distributor

The Email Distributor receives incoming email interactions from mail servers and routes them to available agents. The Email Distributor is responsible for:

- Routing incoming project email to an agent and then back to the originator
- Updating information from the database regarding email projects and agents

- Updating (through the Statistics Server) any changes made to database from the Administration Manager

IM Server

The IM Server bridges communication between resources and browser-based client applications (such as Oracle Contact Center Anywhere Interaction Manager and Oracle Contact Center Anywhere Supervision Manager). It resides in the Network Zone ([Figure 1](#)) and handles all communication between end-users and application resources. It interacts with the Web Server to pass end-user entries to back-end resources.

[Figure 1](#) illustrates the IM Server and how communication is bridged between resources and browser-based client applications.

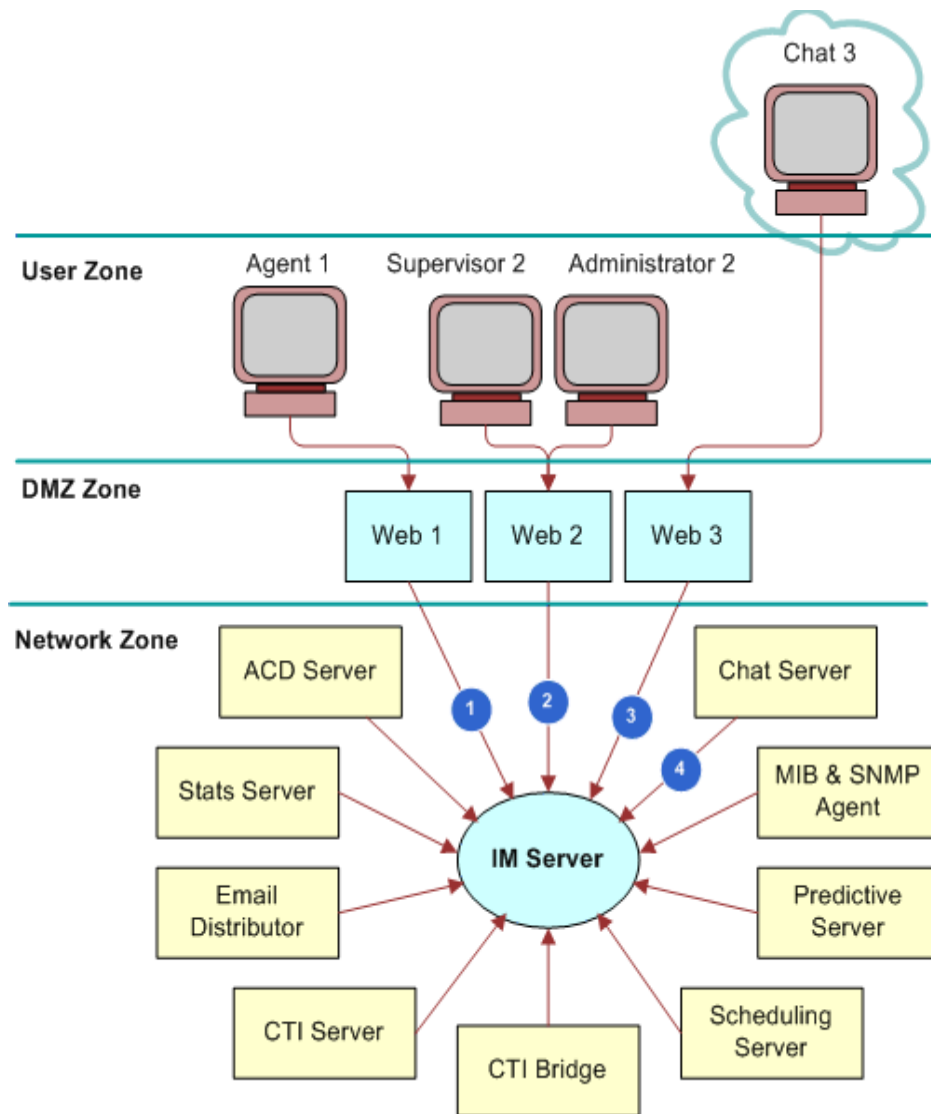


Figure 1. IM Server Communication

IVR Server

The IVR Server supports IVR functionality, for customer-written C++ IVR applications in a dialogic environment. CCA Releases 7 and later do not commonly use this server.

Predictive Server

The optional Predictive Server is required if the company uses Predictive Calling campaigns to place outbound calls. The Predictive server dials numbers from a predefined list, assigns successfully completed calls to available agents, takes actions based on unsuccessful call attempts, and provides statistics for all call attempts.

Schedule Server

The Schedule Server provides a means of setting and managing a predetermined schedule of operating hours for call routing.

The Schedule Server updates the Statistics Server about changes to a phone project when a user sets the schedule. All project changes must be sent to the Statistics Server before the scheduler can process the change.

Statistics Server

The Statistics Server saves statistics about agents, interactions, and workgroups to the Interaction_track table in the database. This table includes:

- Agent log in information in a login table
- Agent status information in the agent status table
- Interaction outcome information in the outcome table
- Real-time statistical information that is sent to the Oracle Contact Center Anywhere Supervision Manager (including traffic, queue, and agent status).

The Statistics Server acts as a gateway to the database. As resources run, they must access the system database to store small nuggets of information with interaction, agent, or queue vital statistics. The Statistics Server provides this service, minimizing the number of simultaneous connections that the database must keep with system resources. The centralization of database functionality in a single resource helps to prevent database failures by providing information to resources handling interactions that do not require database access at that point in time.

The Statistics Server has built in recovery mechanisms to make sure data is written successfully. If a write operation fails, the Statistics server attempts the write again. If the database is not responding, queries are queued until operation is restored, and the data can be written to the database.

SMS Server

The SMS Server works with the Interaction Manager Server and ACD Server to manage SMS communications between agents and customers.

Transaction Examples

The following figures show the processing flow for various types of transactions.

Figure 2 illustrates the processing flow when an ACD call arrives in the contact center. CCA sends information to the License Server for verification and sends a request for an available agent to the ACD Server. The ACD Server locates the agent and sends the call to the IM Server, where the agent, using the Interaction Manager, accepts or refuses the call. Depending upon the agent's response, the IM Server may send the request to the CTI Server or disconnect the call.

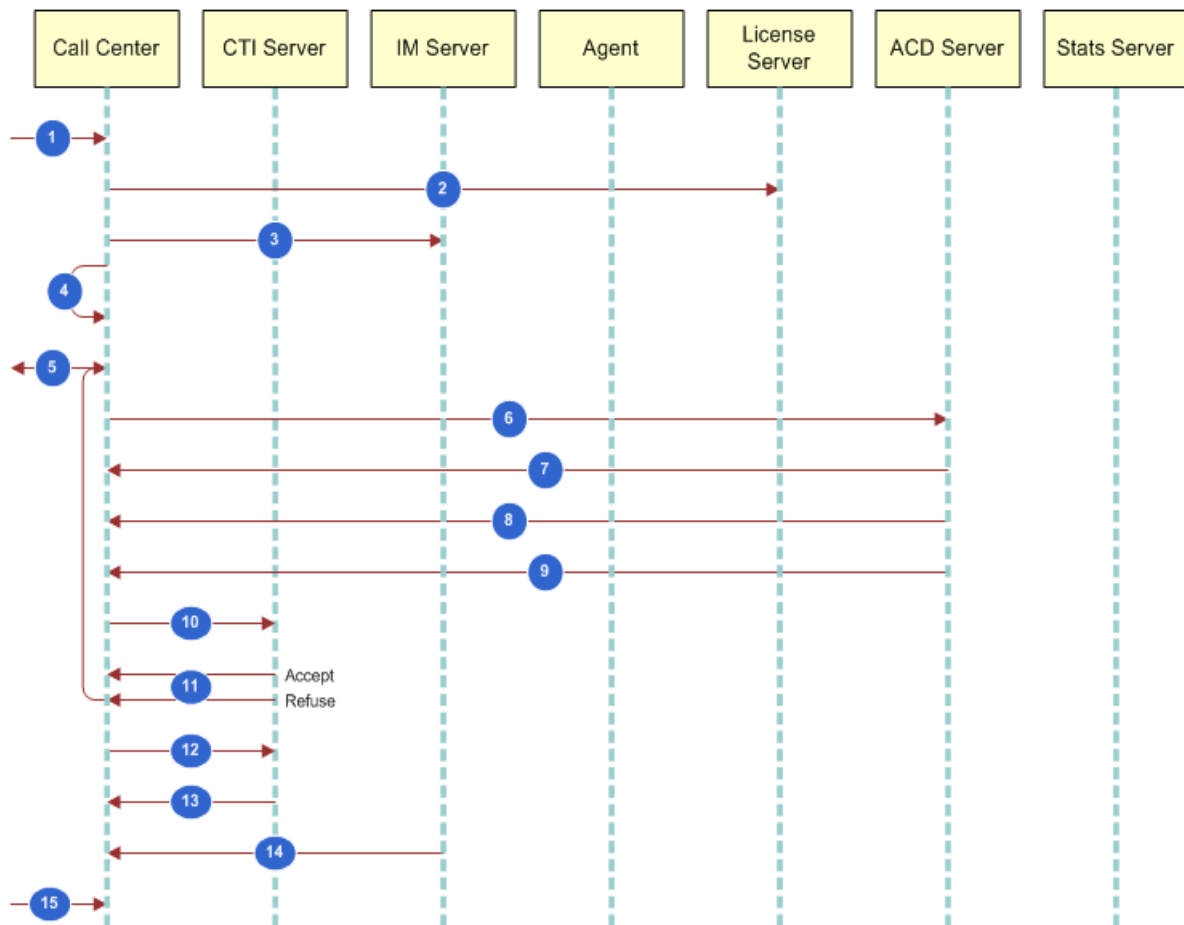


Figure 2. ACD Call (Transaction Example)

Figure 3, shows the process flow when an ACD Chat arrives in the contact center from a customer's PC. The primary actors in the chat information flow include the Interaction Manager, the Web Server, the IM Server, and the Chat Server.

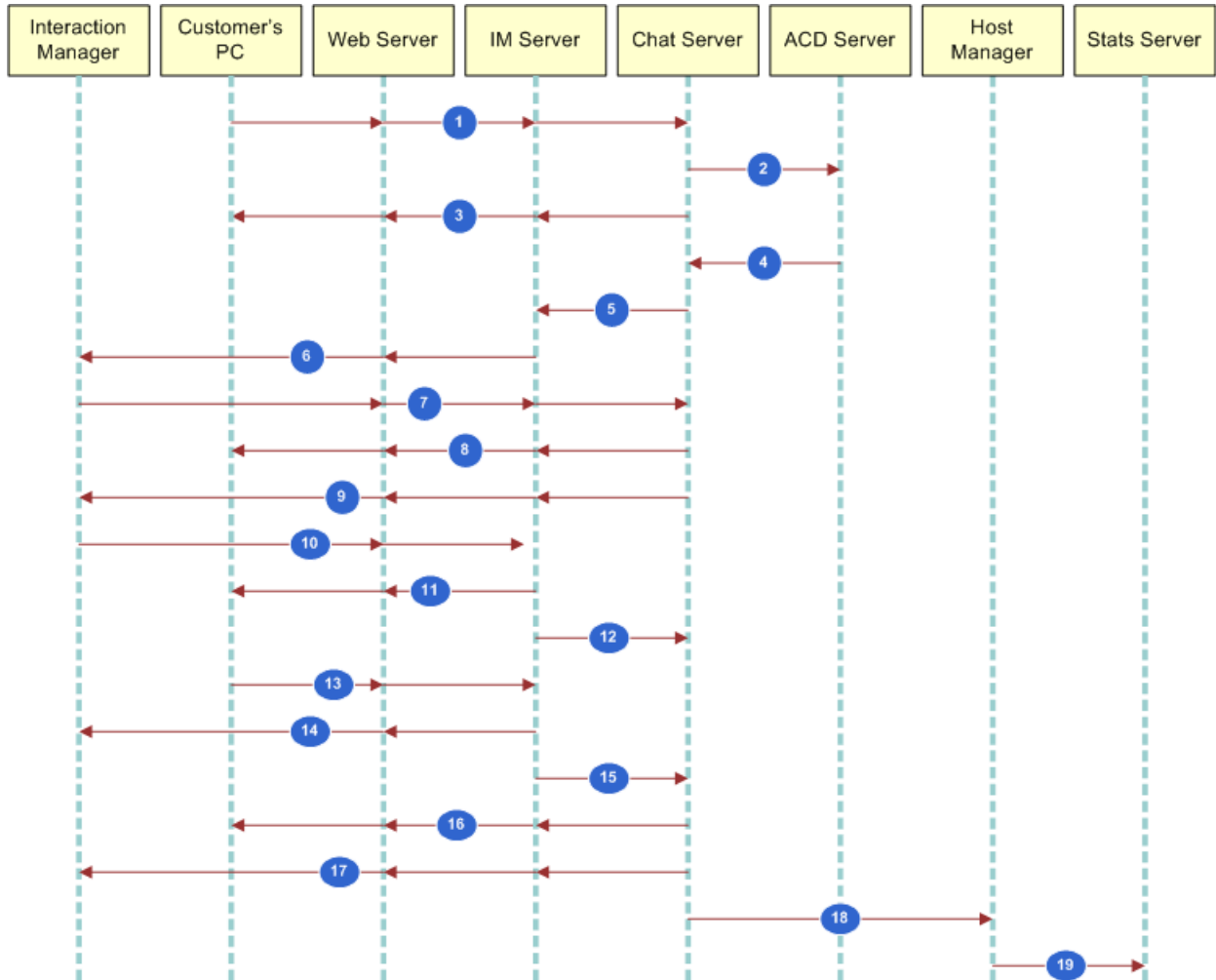


Figure 3. ACD Chat (Transaction Example)

Figure 4, for example, show the process flow when an ACD Email arrives in the contact center from the Email Distributor.

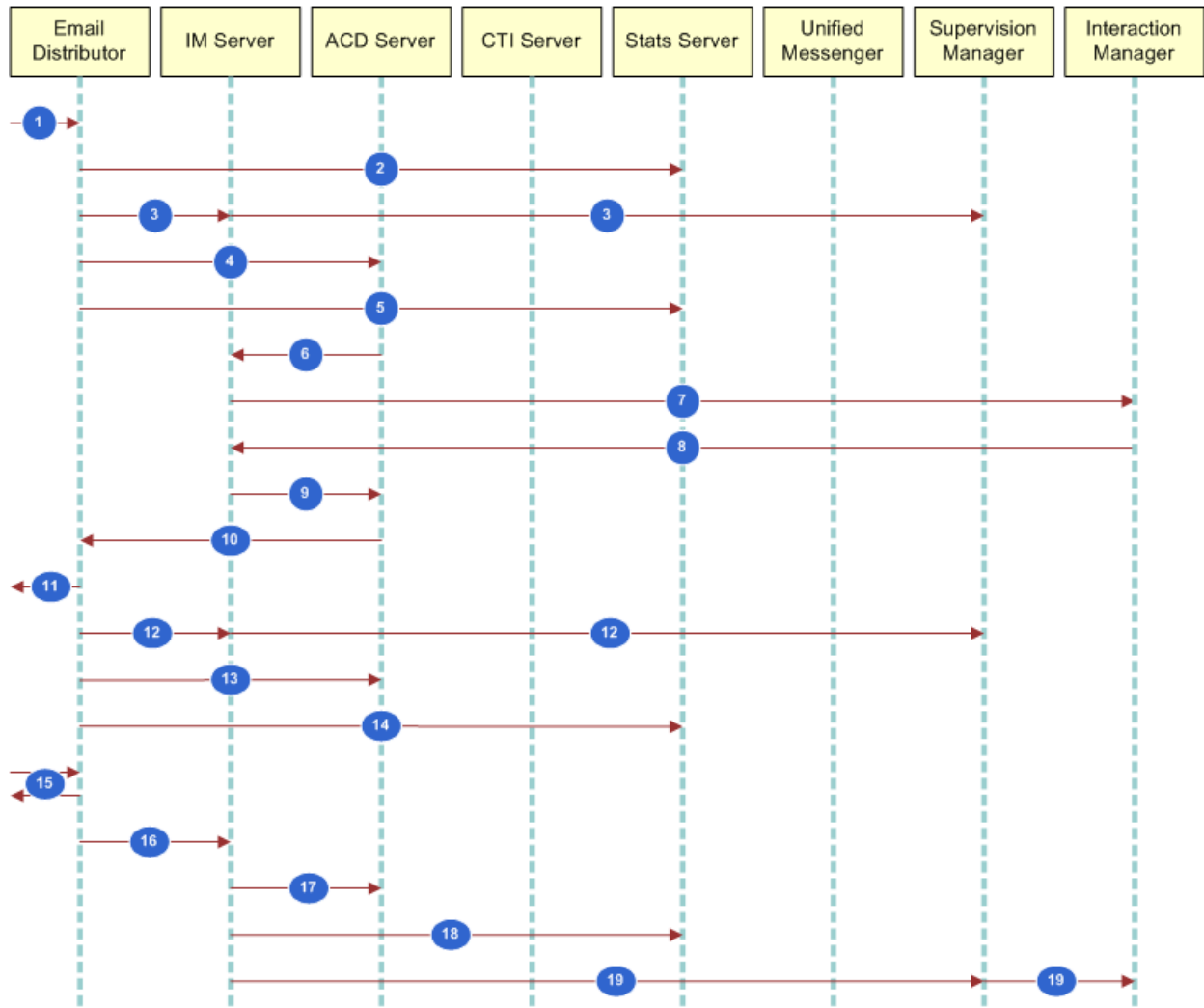


Figure 4. ACD Email (Transaction Example)

3

Getting Started

This chapter explains how to launch Oracle Contact Center Anywhere Network Manager, establish connections, and perform basic functions. It includes the following topics:

- [Launching Network Manager on page 21](#)
- [Database and File System Definition on page 22](#)
- [Reloading Network Manager on page 25](#)
- [Disconnecting from and Reconnecting to the TCP/IP Bus on page 25](#)
- [Basic Network Manager Commands on page 26](#)

Launching Network Manager

Before you launch Network Manager, complete the following tasks:

- Install Network Manager (NetworkManager8x.exe) on the users' computers.
- Ensure a TCP/IP Bus is running.
- Define an appropriate ODBC driver.
- Install CCA and initialize the database.

After you are done, complete the steps in the following procedure to launch Network Manager. For more information on setting up Network Manager, see *Contact Center Anywhere Installation and Upgrade Guide*.

To launch Network Manager

- 1 Find Network Manager (NetworkManager8xx.exe) in the \ccanywhere\NetworkManager folder.
- 2 Double-click the Network Manager icon.
The Login dialog box displays.
- 3 In the Login dialog box, provide the following information:

Field	Description
Alias	Type the name of the ODBC connection, which Network Manager uses to access the CCA database.
User	Type a user name to sign on to the database.
Password	Type the password for the user name you typed in the User text box.

- 4 Click Login.

To create a shortcut to Network Manager

- 1 Find Network Manager (NetworkManager8xx.exe) in the following folder:
 \ccanywhere\NetworkManager
- 2 Right-click and select Send To.
- 3 Select Desktop (Create Shortcut).
 An icon appears on the desktop.

Database and File System Definition

CCA runs on either an MS-SQL Database or an Oracle Database platform. You must specify the database type that will support CCA operations before you can use Network Manager to set up the contact center.

Specifying the Database Type for CCA

CCA supports dual database system, which allows a backup database to run at the same time with the Master Database.

To specify the database type

- 1 From the Network Manager System menu, click Configuration.
 The Database Definition dialog box opens.
- 2 In the Database, select Master sub tab, and then enter information about the Master database:

Field	Description
Driver	<ul style="list-style-type: none">■ If the SQL server is in use, click SQL.■ If Oracle is in use, click Oracle.
Alias	Enter the name of the ODBC driver used to connect to the database.
User	Enter the user name used to sign in to the database.
Password	Enter the password associated with the user.

- 3 The Backup tab is used to configure a Dual Database system:
 - a If the CCA system is using a single database, use the default Backup tab values.
 - b If the CCA system is using a dual database, enter the information about the Backup database.
- 4 Click OK to save your settings.

Configuring a JDBC Connection for an SMSC Gateway Resource

The SMSC Gateway resource uses a JDBC Connection to access the CCA database. For more information about configuring the SMSC Gateway resource, see [Adding an SMSC Gateway Server Resource on page 54](#).

To configure JDBC connection for SMSC Gateway resource

- 1 From the System Menu, click Configuration to open the Database Definition dialog box.
- 2 In the Database, select Master tab, and then click the JDBC sub tab.
- 3 Enter the following information:
 - a Class name refers to the name of the class for the JDBC driver that will be used for database reads and writes.
 - b URL refers the connection to the Database. It contains the host, port and SID of the schema.

The values of these fields depend on which type of database is using:

- If the SQL Server is in use:

- Class Name:

com. i net. pool . Pool Dri ver

- URL:

j dbc: i netpool : i netdae7: <the hostname or IP of the machine the database is located>: <database port>

Example: j dbc: i netpool : i netdae7: engal l i a1000-02. oracl e. com: 1433

- If the Oracle Server is in use:

- Class Name:

oracl e. j dbc. dri ver. Oracl eDri ver

- URL:

j dbc: oracle: thin: @ <the hostname or IP of the machine the database is located>: <database port>: <SID>

Example: j dbc: oracle: thin: @voip2: 1521: oracle

NOTE: If you are using a Dual Database system, repeat Step 2 with the Backup database sub tab.

- 4 Click OK to save your settings.

Specifying the Computer Path for CCA to Store Uploaded User Files

CCA requires access to a hosted file system for storage of files uploaded by CCA users. You must specify the computer and the path to the location where CCA stores these files.

To specify the computer path for storage of uploaded files

- 1 In the System Configuration dialog box, click the System tab.

The File System Definition dialog box appears.

- 2 Enter the following information:

Field	Description
Server Host	Type the name of the computer where CCA will store uploaded files.
Server Root Path	Type a valid, existing path on the computer specified in Server Host text box. CCA will create a directory structure for storing transferred files.
File Size Limit	Type the maximum file size (in kilobytes) allowed for CCA prompt recordings.
FTP Username	Type a user name for the computer specified in the Server Host text box. NOTE: The user must have the necessary permissions for FTP.
FTP Password	Type a password for the user specified in the FTP Username text box.

- 3 Click OK.

The Database and File system are now configured.

Setting Up the Alarm Mailbox Definition

CCA can send an email each time a resource stops for any reason. This mailbox can be to an administrator, to a Network Operations Center, to an on-call pager, or to any other valid email address. The address specified will receive all notifications for all hosts and all companies defined on a system.

To set up the alarm mail definition

- 1 Navigate to the Options menu, then Alarm Mailbox item and click Alarm Mailbox

The Alarm Mailbox dialog box opens.

Field	Description
To Address	Network Manager sends a notification to this address, should a resource stop.
From Address	This address appears in the From field on the notification email.
Host	The name of the system hosting the SMTP mail server. (Usually, this is a corporate mail server.)
SMTP Timeout (sec)	The number of seconds Network Manager will try to send the message to the SMTP host.
User ID	The user name for the <i>sending</i> account on the SMTP server.
Enable Alarm check box	When checked, the Alarm Mailbox is active.
Save to Registry	When checked, Network Manager writes the settings to the Network Manager registry (not the registry of the host system) and uses the information to configure the Alarm Mailbox.

- 2 Click OK.

Reloading Network Manager

Occasionally, you might need to re-establish connectivity to Network Manager or make sure that the connection to Network Manager is active.

To re-establish connectivity or verify the connection is active

- 1 Navigate to the File menu Reload item and click Reload.

The Login dialog box opens.

- 2 Complete the steps in [“Launching Network Manager”](#) on page 21.

Disconnecting from and Reconnecting to the TCP/IP Bus

When working with a CCA system that has multiple hosts it is possible to connect to the TCP/IP Bus from any of the host systems. Do this when a single system is scheduled for maintenance.

Connecting to the TCP/IP Bus

Complete the steps in the following procedure to connect to the TCP/IP bus.

To connect to the TCP/IP bus

- 1 Navigate to the Bus menu Disconnect Bus item and click Disconnect Bus.
- 2 Take note of the status line.
Network Manager disconnects from the TCP/IP Bus.
- 3 Again, take note of the status line for action confirmation.

Reconnecting Network Manager to CCA

After disconnecting, Network Manager cannot affect change in the CCA system. To continue, you must reconnect Network Manager to CCA.

To reconnect Network Manager to CCA

- 1 Navigate to the Bus menu Reconnect Bus item and click Reconnect Bus.
- 2 Take note of the status line.
The Connect to Bus dialog box opens.
- 3 Select the desired host from the drop down list, and click Connect.
Network Manager connects to the TCP/IP Bus.
- 4 Take note of the status line for action confirmation.

Basic Network Manager Commands

Network Manager uses the following options to identify commands:

- Reload network
- Add a CCA resource to the current company or host
- Delete the selected CCA resource from the current company or host
- Start the selected CCA resource
- Stop the selected CCA resource

Reload Network View

The Reload Network button allows the Network Manager user to log in to a different system, or to refresh their login on the current system. It brings up the login dialog box.

TIP: Use the same log in procedure described in [Launching Network Manager on page 21](#).

Adding a Resource

The Add Resource button launches the Add New Server dialog box. Use this dialog box to add servers to the CCA environment. This topic is discussed in detail later in this guide. For more information adding servers, see [Adding All Shared and Dedicated Resources to a Company on page 67](#).

Deleting a Resource

The Delete Resource button is used to remove resources. The button launches a message confirming the delete. When you click OK, the resource is removed.

Starting a Resource

The Start Resource button starts the selected CCA resource. It shows a status box indicating progress.

Stop Resource

The Stop Resource button stops the selected CCA resource. It shows a status box indicating progress.

4

Viewing CCA Resources

This chapter of Oracle Contact Center Anywhere Network Manager provides a Host View and a Company View of CCA resources. It includes the following topics:

- [Host and Company Perspective on page 29](#)
- [Selecting a Host \(Physical Server\) on page 29](#)
- [Selecting a Company on page 30](#)

Host and Company Perspective

There are two ways to view CCA resources; by Host and by Company. A CCA installation may include a large number of host systems, and in an Application Service Provider setting, multiple company definitions. Using Network Manager, you can view these resources from a Host Perspective or from a Company Perspective.

The Host Perspective shows resources that are associated with a physical server. The Company View shows resources that are associated with a company.

Selecting a Host (Physical Server)

Complete the steps in the following procedure to select a physical server from the Host Perspective.

To select a host

- 1 From the Host View, click View by Host.
The raised alphabetic selectors identify an existing host.
- 2 Click a raised alphabet character (such as P).
A list of hosts appears in the adjacent box.
- 3 Select a host and double-click.
Network Manager displays the Host Tree for the host you selected.

Changes to Host View Menu Items

It is important to note that after you select a host, the available commands from within the Resources and Options Menus change. For example, in the Resources Menu, using the Host View provided in [Selecting a Host \(Physical Server\) on page 29](#), if you select *doc1* from the Host Tree, then the Start Resource and Delete Resource items are no longer available. Whereas, if you select *MCU Server* from the Host Tree, these two items become available but the Stop Resource and Telnet items are not.

In the Options Menu, using the Host View provided in [Selecting a Host \(Physical Server\) on page 29](#), if you select *doc1* from the Host Tree, then the Stop All for Company and Start All for Company items are not available. Whereas, if you select *MCU Server*, then the Stop All for Company, Start All for Company, Stop All for Host, and Start All for Host are not available.

If you do not select a host from the Host Tree, then only a few options remain available. In this case, the available items within the Resources Menu include only the Add Host Manager, Contact Center, and Advanced Options. The available items within the Options menu are limited to Alarm Mailbox, Verity Status, Force Shutdown, Start Companies, and Start All Shared.

Selecting a Company

Complete the steps in the following procedure to select a company from the Company Perspective.

To select a company

- 1 From the Host View, select View by Company.
The raised alphabetic selectors identify an existing company.
- 2 Select a raised alphabet selector (such as A).
A list of companies appears in the adjacent box.
- 3 Double-click a company from the list.
Network Manager displays the Company tree.

Changes to Company View Menu Items

After you select a company, the available commands from within the Resources and Options Menus change. For example, in the Resources Menu, using the Company View provided in [Selecting a Company on page 30](#), if you select *CCA Network* from the Company Tree, then only the Contact Center and Advanced Options items are available. Whereas, if you select *ASP Services* from the Company Tree, two additional items (Add Resource and Delete Resource) are also available.

In the Options Menu, using the Company View provided in [Selecting a Company on page 30](#), if you select *CCA Network* from the Company Tree, then only the Alarm Mailbox, Force Shutdown, Start Companies, and Start All Shared items are available. Whereas, if you select *ASP Services*, then the two additional items (Stop All for Company and Start All for Company) become available.

If you do not select a host from the Host Tree, then only a few options remain available. In this case, the available items within the Resources Menu include only the Add Host Manager, Contact Center, and Advanced Options. The available items within the Options menu are limited to Alarm Mailbox, Force Shutdown, Start Companies, and Start All Shared.

5

Installing a Host Manager

This chapter of Oracle Contact Center Anywhere Network Manager introduces Host Manager and describes how to install a Host Manager on each physical host in the Contact Center Anywhere application. It includes the following topics:

- [About Host Manager on page 33](#)
- [Installing Host Manager on page 33](#)
- [About the Default Resources Dialog Box on page 34](#)

NOTE: Adding required CCA resources is the first step in building a contact center for a company, or for Service Providers, for client companies. Installing resources must be performed in order. Host Manager is the first resource that you install.

About Host Manager

Host Manager is the first resource you must install on each physical host in CCA.

Host Manager performs the following functions:

- The Host Manager creates directory structures for each company in CCA. These directories manage quality control recordings, email and chat histories, prompts, and so on. The Host Manager transfers files to and from the FTP server to the application server.
- Host Manager manages all the resources on a given host, and handles all starting and stopping of resources.

Installing Host Manager

Complete the steps in the following procedure to install Host Manager.

To install Host Manager

- 1 Make sure that Network Manager is connected to the TCP-IP Bus.
- 2 Change to the Host Perspective.

For more information on host managers, see [Selecting a Host \(Physical Server\) on page 29](#).

- 3 From the Resources Menu, choose Add Host Manager.

4 In the Host Manager dialog box, complete the fields.

Field	Description
Host	Type the name of the Host computer in the CCA network.
Port	Type the Port Number for the Host Manager. NOTE: If you are unsure of the value, click the Suggest Port button.
Home Directory	Type the directory location where CCA is installed. CCA creates a \log folder in the specified directory
Location	Type a logical location.
Create Library Email	You must check this box. NOTE: Network Manger uses this flag to create the directory structure for CCA.
Create Lib fax and Prompt:	You must check this option. NOTE: Network Manager used this flag to create the directory structure for CCA.
Log Size	Type the size (in kilobytes) of the log files if the Number of Logs option is selected in Clean Log Files.
Clean log files Daily	If you select <i>Daily</i> , the system creates a new log file each day and stores the previous day's log files on the disk.
Clean log files Number of logs	If you select <i>Number of logs</i> , the system continues to open new logs until the log file size you identify in this field is reached. When the value in Number of logs is reached, the system begins to overwrite existing log files.
Trace Level:	Select a number to define the amount of detail to write to the logs (where 1 is least amount of detail and 5 is the greatest amount of detail).

5 Click Save.

Network Manager opens the Default Resources dialog box.

6 Click the Dedicated tab.

7 Choose one of two courses of action:

- Click Finish and add resources later.
- Add shared or dedicated resources to the CCA Network, using the Default Resource dialog box.

About the Default Resources Dialog Box

Adding multiple resources is a method used to quickly set up a host. The resources you set up using the Default Resources dialog box adopt the parameters you set for the Host Manager you just added.

You may, for example, add shared resources using the Default Resources dialog box. Many of the shared resources, however, require separate systems in a moderately large installation. For more information on shared resources, see [Adding Shared Resources on page 37](#).

For example, a 200-interaction voice contact center would require three hosts dedicated to contact center servers and one host dedicated to the MCU Server. In this case, it is necessary to define four host managers, one for each host, and then it is a single click to create the resource on the host.

You should note, however that:

- Many of the resources require additional configuration beyond those used by the Host Manager. Refer to the appropriate section for configuration information.
- Dedicated resources default to *Master* resources. For more information on dedicated resources, see [Adding Dedicated Resources on page 57](#).
- It is not possible to generate backup dedicated resources with this dialog box. You must add backup resources individually.

6

Adding Shared Resources

This chapter of Oracle Contact Center Anywhere Network Manager describes how to add shared resources, after first installing a Host Manager. It includes the following topics:

- [Adding a New Contact Center Server Resource on page 37](#)
- [Adding a CTI Bridge Resource on page 42](#)
- [About Dial Plans on page 43](#)
- [Adding a Dialing Pattern on page 43](#)
- [Adding a Local Dial Pattern on page 44](#)
- [Deleting a Local Number Pattern on page 44](#)
- [About Dial Plan Groups on page 45](#)
- [Adding a Dial Plan Group on page 45](#)
- [Adding a License Server Resource on page 46](#)
- [Adding a MCU Server Resource on page 48](#)
- [Adding a Redirect Server Resource on page 49](#)
- [Adding a Music Server Resource on page 50](#)
- [Adding a SNMP Agent Resource on page 52](#)
- [Adding a Unified Messenger Resource on page 52](#)
- [Adding a MP3 Converter Resource on page 53](#)
- [Adding an SMSC Gateway Server Resource on page 54](#)

Adding a New Contact Center Server Resource

Contact Center resources are responsible for handling voice path connections. Voice path connections in the CCA environment are IP Gateways that are connected to the PSTN or PBX or other devices through PRI ISDN, Euro ISDN, or T1 or E1 tie trunks; or contact center resources are used to establish connectivity to SIP or H323 phones, or to soft phones in the agent environment.

In a VoIP implementation, a standard 1U server running a single contact center resource can support 250 RTP streams. It takes two RTP streams to connect a single conversation.

NOTE: The availability of menu items varies, depending upon your configuration.

To add a new server resource

- 1 In the Add New Server dialog box, complete the fields for the new server resource. For more information on adding a resource, see [Adding a Resource on page 27](#).

Field	Description
Host	Select the computer on which the resource is to be loaded.
Resource ID	(Display only) A numeric, sequential identifier for the resource. NOTE: The system automatically assigns this number when creating the resource.
Port	The IP port the resource uses for TCP/IP bus messaging.
Resource Type	Select Contact Center as the type of resource to configure.
Dedicated	If this box is checked, then system assigns the resource for use by a single company, otherwise the resource is available to all companies.
Resource Mode	Select Master.
Company	Used only if Dedicated is checked, to identify the company.
Trace Level	Select a number that defines the amount of detail to write to the logs (where 1 is least amount of detail and 5 is the greatest amount of detail).

- 2 Save the contact center resource, which activates the Advanced button, from which you can access the Contact Center Advanced dialog box fields.
- 3 Complete the Contact Center Advanced dialog box fields.

Field	Description
Hardware	Select the type of hardware the contact center is to support. Choose from Dialogic, Nortel, and TAW-VoIP.
Ext Length	The length of the extension. Project menus use this information for extension dialing. NOTE: The length set here must equal or exceed the number of digits planned for agent extensions in the Administration Manager (AM).
Dial Out	Type the number the system needs to access an external (outside) line.
PBX Prefix	Type the prefix number the system need to access an outside line when making telephone calls external to the PBX (Private Branch Exchange).
Ani Variation Size	Type the number of digits for incoming calls. This number is based on the ANI (automatic number identification) service providing the telephone numbers of incoming calls.
Auto-Answer Call	If this box is checked, then the system answers calls automatically.
Country Code	Enter the country code for the country where the system is located.

Field	Description
National Prefix	Type the Dial Code prefix used to access National lines. For example, the national prefix for the US is 1.
International Prefix	Type the Dial Code prefix used to access International lines. For example, the International Prefix for Europe is 011.
Private Prefix	Type the Dial Code prefix a company uses when calling from one company to another, within the same organization. For example, a large company may have several locations in the US and in Europe. The Private Prefix is the number company employees in the US dial to reach other company employees in Europe.
Strip Country Code	If this box is checked, the system dials the number without using the country code.
Dial Plan Group	Select a Dial Plan Group from the drop-down list. A Dial Plan Group defines the contact center routing rules and call types when dialing a number.
Description	A logical identifier.

4 Click Save.

Depending upon the choice of hardware, one of the following screens appears:

- If you select Dialogic (hardware), then the Configure option opens the Contact Center Hardware dialog box.
- If you select Nortel (hardware), then the Configure option opens the Nortel dialog boxes.
- If you select TAW-VoIP (hardware), then the Configure option opens the VoIP Forms.

5 In VoIP Form, complete the fields.

Field	Description
Host	The IP address of the machine on which the contact center resource is loaded.
Start Port	The beginning port number for the resource. NOTE: This must be an even number (such as 8000, not 8001).
End Port	The system automatically completes this field when the Start Port populates. NOTE: No other resources loaded on a single host can use this port number.
Start Reserved	The system automatically completes this field, based on the number of channels defined.
End Reserved	The system automatically completes this field, based on the number of channels defined.

Field	Description
Payload	Select MuLaw, ALaw, or g729. NOTE: This entry must match the payload sent by the contact center server.
Frames Per Second	Choose 160 or 240 bytes per frame. For example, 160 sends 160 bytes every 20 milliseconds; 240 sends 240 bytes every 30 ms. NOTE: This value must match all resources defined in a CCA network.
SIP Port	Enter the value for the port that the system uses to pass SIP messages. The default value is 5060.

- 6 Click Accept.
- 7 Double-click Channels to open the VoIP Interface dialog box.
- 8 In the first part of the VoIP Interface dialog box, complete the fields.

Field	Description
Name	Enter a descriptive name that will have meaning later. For example, Quintum CMS.
Interface	Select one of four possible interface types: <ul style="list-style-type: none"> ■ SIP: Agent-side VoIP ■ SIPGateway: SIP-based PSTN Gateway devices ■ H323: Agent-side VoIP ■ H323PSTNGateway: H323-based PSTN Gateway devices
Number Of Channels	Enter the number of PSTN channels (or the number of VoIP phones) that are connected to the contact center resource.
Gateway IP Address	Enter the IP address of the physical gateway. This is only required if SIPGateway or H323PSTNGateway is selected in the Interface field.
Gateway Type	Identify the type of the gateway. This is only required if SIPGateway or H323PSTNGateway is selected in the Interface field. The selections include Unknown, Quintum, Cisco, and Audiocodes.
Default DNIS	Identify a default DNIS value that the system will assign to all calls entering the system without a DNIS.
SIP Port	Enter the port value that the system uses to pass SIP messages. The default value is 5060.

Field	Description
ANI/DNIS Format	<p>Click to specify the ANI (automatic number ID) and DNIS (direct number ID service) formatting:</p> <ul style="list-style-type: none"> ■ ANI Size: The size of the ANI. (For North America, 10 is common [Area code + number].) ■ ANI Prefix: This part of the VoIP identification is usually * (an asterisk). ■ ANI Suffix: This part of the VoIP identification is usually # (a pound sign). ■ DNIS Size: This part of the VoIP identification is usually 4 characters long. ■ DNIS Prefix: This part of the VoIP identification is usually * (an asterisk). ■ DNIS Suffix: This part of the VoIP identification is usually # (a pound sign).
Outbound	If checked, users can make outbound calls from the contact center.
PBX	If checked, the contact center is designated to handle calls to and from a PBX.
Predictive:	If checked, the contact center is designated to handle Predictive Dialing.

9 In the second part of the VoIP Interface dialog box, complete the fields.

Field	Description
ANI/DNIS Format	<p>Click to specify the ANI (automatic number ID) and DNIS (direct number ID service) formatting:</p> <ul style="list-style-type: none"> ■ ANI Size: The size of the ANI. (For North America, 10 is common [Area code + number].) ■ ANI Prefix: This part of the VoIP identification is usually * (an asterisk). ■ ANI Suffix: This part of the VoIP identification is usually # (a pound sign). ■ DNIS Size: This part of the VoIP identification is usually 4 characters long. ■ DNIS Prefix: This part of the VoIP identification is usually * (an asterisk). ■ DNIS Suffix: This part of the VoIP identification is usually # (a pound sign).
Outbound	If checked, users can make outbound calls from the contact center.

Field	Description
PBX	If checked, the contact center is designated to handle calls to and from a PBX.
Predictive:	If checked, the contact center is designated to handle Predictive Dialing.

10 Click Accept.

Adding a CTI Bridge Resource

The CTI Bridge Resource is used only in Dialogic configurations. These configurations can use an ATM switch or Kallastara cards. The CTI Bridge communicates between the various Dialogic cards in CCA.

The setup of a CTI Bridge Resource includes two dialog boxes. The first of these is the Resource Information dialog box, which is similar to the Add New Resource dialog box, except that the Resource Information dialog box has different control fields.

To add a CTI bridge resource

1 In the Resource Information dialog box, complete the fields.

Field	Description
Host	Select the computer on which the resource is to be loaded.
Resource ID	A numeric, sequential identifier for the resource. NOTE: The system automatically assigns this number when creating the resource.
Port:	Enter the value for the IP port that the resource will use for TCP/IP bus messaging.
Resource Type:	Select CTI Bridge as the type of resource to configure.
Resource Mode:	Select Master.
Trace Level:	Select a number that defines the amount of detail that will be written to the logs (where 1 is least amount of detail and 5 is the most amount of detail).

2 Save the CTI Bridge Resource, which activates the Advanced button, where you can access the second of the CTI Bridge dialog boxes.

- Complete the CTI Bridge Resource Advanced fields.

Field	Description
Type	This control is set to ATM and is not accessible
First Timeslot	Type the initial timeslot on a Dialogic Card. <ul style="list-style-type: none"> ■ If the card is PRI only, then this value must be 2048. ■ If the card is ISA or PRI, then this value must be 751.
Second Timeslot:	Type the end timeslot on a Dialogic Card. <ul style="list-style-type: none"> ■ If the card is PRI only, then this value must be 4095. ■ If the card is ISA or PRI then this value must be 1023.

- Click Save.

About Dial Plans

You must provide Dial Plan information relevant to the location of the contact center so that CCA can determine how an outbound call should be placed.

Dial Plan information is divided into three organizational groups; Patterns, Local Patterns, and Dial Plans.

Adding a Dialing Pattern

Patterns are left-edge based dial strings. For example, an international number when dialed from North America must be preceded by 011, or a call for emergency help will have the string 911. In each case, the first three digits indicate what type of call is being placed, International and 911 emergency respectively, and each call will have a count of digits associated with it.

Add a pattern when:

- There are additional area codes for local dialing
- Dialing changes from 7-digits to 10-digits
- There are additional x11 services

To add a dialing pattern

- From the Resources menu, click Contact Center, and then Patterns to open the Contact Center dialog box.

NOTE: Each pattern shows the associated size (or number of digits) expected in the full dial string.

- 2 To add a dial pattern, click in the last populated entry in the Size column and press the tab key. The Contact Center Patterns dialog box opens a blank row.
- 3 Enter the desired Pattern and associated Size.
- 4 Click Save.

Adding a Local Dial Pattern

Local Patterns are left-edge based dial strings like patterns that are used exclusively for local dialing.

Local Patterns are assigned in the Contact Center, Advanced dialog box through the Local Patterns button. For example, in the San Diego, CA area, both 619 and 858 are valid area codes. Since a call from 858 to 619 needs to be 10 digits, but is not a long distance call, the Local Pattern must account for this. It must also account for a call from 858 to 858 and deal with 7-digit dial strings as being within the same area code.

To add a local dial pattern

- 1 Navigate to the Resources menu, then the Contact Center item Local Patterns sub-item, and then click Local Patterns.

The Local Number Patterns dialog box opens.

NOTE: Each pattern has an associated length, name, and description.

- 2 Double-click in the unpopulated entry to open the Local Pattern dialog box.
- 3 Enter the desired Pattern, Length, Name, and Description. The following is an example of a completed Local Pattern for the area code, 909:

- **Pattern.** The pattern defined is 909.
- **Length.** The length defined is 10.
- **Name.** The name defined is North County.
- **Description.** The description defined is Southern Riverside City.

- 4 Click Save.

The Local Number Patterns dialog box appears.

- 5 Click Save again.

Deleting a Local Number Pattern

You may need to change or delete a local pattern when the following events occur:

- Additional area codes are required for local dialing
- Dialing changes from 7 digits to 10 digits
- An area code is removed

To delete a local number pattern

- 1 Click once on the pattern and then click Delete.
- 2 Click Yes to confirm the deletion.

About Dial Plan Groups

A Dial Plan Group defines the Contact Center routing rules when dialing a number (including preferred, no preference, and unable to dial) and the dial types (dedicated or non-dedicated).

Each Dial Plan Group can have a list of Dial Plan Patterns. A Dial Plan Pattern represents a matching number for a specific country or a PBX extension. Network Manager uses Dial Plan Patterns three ways, following the Dial Plan Routing Rules.

Dial Plan Routing Rules

The Dial Plan routing defines the rules for a specific contact center to dial a phone number. A routing can be:

- **Preferred:** Dials a specific number
- **Normal:** Dials a specific number without any preference
- **Excluded:** Unable to dial a phone number

Dial Plan Types

There are two types of Dial Plans:

- **Dedicated Dial Plan:** A Dial Plan that prevents dialing any number that is not defined in the Pattern List as preferred or normal.
- **Non-dedicated Dial Plan:** A Dial Plan that allows dialing any number without any preference, as long as this number is not defined in the Pattern List as excluded. (Therefore, if a number is defined for this Dial Plan as preferred, the Dial Plan dials this number first.)

Adding a Dial Plan Group

Complete the steps in the following procedure to add a group to a dial plan.

To add a dial plan group

- 1 Click an empty row in the Dial Plan Groups dialog box.
The New Dial Plan Group dialog box opens.

- 2 Complete the fields for the new dial plan group.

Field	Description
Name	Type a name for this new Dial Plan Group.
Description	Type a description for this new Dial Plan Group.
Dedicated	If checked, then this becomes a dedicated plan.

- 3 Click Save.

The Dial Plan dialog box opens.

- 4 Complete the Dial Plan fields.

Field	Description
Pattern	Type a pattern that represents a matching number for a specific country or a PBX extension. NOTE: You can type a question mark (?) as a substitute for any one digit or an asterisk (*) as a substitute for many digits.
Country Code	Select a country code or PBX (for PBX extension).
Length	Enter the exact length of the phone number to match. NOTE: If the length is zero, the system ignores length.
Plan Type	Select one of the following plan types: <ul style="list-style-type: none"> ■ Normal: Able to dial a specific number without any preference. ■ Preferred: Provide a specific number preference. ■ Excluded: Disable a specific number.
Name	Displays the name of this plan, which you entered previously.
Description	Displays the description for this plan, which you entered previously.

- 5 Click Accept.

Adding a License Server Resource

License server resources are responsible for checking available interactions when a new interaction arrives through one of CCA's media types.

License server controls the flow of messages to master and backup dedicated resources in the system. If a master dedicated resource fails, the license server redirects the current state information to the backup dedicated resource, which then becomes the master.

License server is also responsible for email notification of license usage, based on parameters and thresholds set at implementation.

The setup of a license server resource is managed using two dialog boxes. The first is the Resource Information dialog box, which is similar to the Add New Resource dialog box, except that the Resource Information dialog box has different control options.

To add a license server resource

- 1 In the Resource Information box, complete the license server resource information fields.

Field	Description
Host	Select the computer on which the resource is to be loaded.
Resource ID	A numeric, sequential identifier for the resource. NOTE: The system automatically assigns this number when creating the resource.
Port	The IP port the resource uses for TCP/IP bus messaging.
Resource Type	Select License Server as the type of resource to configure.
Resource Mode	Select Master.
Company	Used only if Dedicated is checked.
Trace Level	Select a number to define the amount of detail to write to the logs (where 1 is least amount of detail and 5 is the most amount of detail).

- 2 Save the license server resource.

The Save action activates the Advanced button, from which you can access the second of the license server dialog boxes.

- 3 Complete the license server, Advanced fields.

Field	Description
Notification Interval Time	Select a range for a frequency interaction level (which range from Once a Day to Once a Year). The system performs a check against licenses at the time interval selected. If the system detects a potential licensing shortage, it sends a notification to the customer.
Notification Threshold	Select the percentage of licenses that must be in simultaneous use to trigger a notification event.
From Email Address	Enter the email address that the notification will show in the From header section of the notification.
To Email Address	Enter the email address where the system will send notifications. NOTE: Use an address that is frequently monitored.
SMTP Host	Enter the Host system ID using the Send Mail Transfer Protocol. NOTE: This is usually a corporate email server.

Field	Description
SMTP Domain	Enter the Domain ID where the SMTP Host is located.
Enable	If this box is checked, the license server sends a notification for the selected interval and threshold to the specified email address.

- 4 Click OK.

Adding a MCU Server Resource

MCU server resources are responsible for creating and managing conference resources used by outside callers and CCA agents. Conference resources establish conference calls and enable Oracle Contact Center Anywhere Supervision Manager functions (such as listen, whisper coaching, and join).

NOTE: The settings required to create an MCU service must match those used in the contact center resource.

In a VoIP implementation, a standard 1U server running a single MCU server resource can support 100 parties in a conference.

The setup of a MCU server resource involves two dialog boxes. The first of these is the Resource Information dialog box, which is similar to the Add New Resource dialog box, with different control options.

To add an MCU server resource

- 1 In the MCU Server Resource Information dialog box, complete the fields.

Field	Description
Host	Select the computer on which the resource is to be loaded.
Resource ID	A numeric, sequential identifier for the resource. NOTE: The system automatically assigns this number when creating the resource.
Port	Enter the IP port the resource uses for TCP/IP bus messaging.
Resource Type	Select MCU Server as the type of resource to configure.
Resource Mode	Select Master.
Company	Select a company only if Dedicated is checked.
Trace Level	Select a number to define the amount of detail to write to the logs (where 1 is least amount of detail and 5 is the most amount of detail).

- 2 Save the MCUserver resource, which activates the Advanced button, from which you can access the second of the MCU Server dialog boxes.
- 3 Complete the MCU server fields.

Field	Description
IP Address	Enter the IP address of the machine on which the contact center resource is loaded.
Payload	Select MuLaw, ALaw, or 9729. NOTE: This value must match the payload sent by the contact center server.
Frames Per Second	Select either 160 or 240 bytes per frame. For example, 160 sends 160 bytes every 20 milliseconds, and 240 sends 240 bytes every 30 ms. NOTE: This value must match on all resources defined in a CCA network.
Sip Port	Enter the port value that the system uses to pass SIP messages. The default value is 5060.
Start RTP Port	Enter the port number the system uses to begin RTP streaming.
End RTP Port	Enter the port number the system uses to end RTP streaming.
Description	Enter a descriptive name. For example, MCU Server for Quintum CMS.

CAUTION: The value entered in the Frames Per Second field in both the MCU Server dialog box and the VoIP Interface dialog box, must match exactly.

Adding a Redirect Server Resource

Redirect server resources are responsible for matching calls coming into VoIP Gateways to contact center resource. The redirect server only considers contact center resources used by the redirect server. If the redirect server does not specifically use any contact center resources, then no calls handled by the redirect server will reach a contact center resource.

The setup of a redirect server resource spans two dialog boxes. The first of these is the Resource Information dialog box, which is essentially the same as the Add New Resource dialog box, with different control fields.

To add a redirect server resource

- 1 In the Redirect Resource Server Information dialog box, complete the fields.

Field	Description
Host	Select the computer on which the resource is to be loaded.
Resource ID	Displays a numeric, sequential identifier for the resource. NOTE: The system automatically assigns this number when creating the resource.
Port	Type the IP port the resource will use for TCP/IP bus messaging.
Resource Type	Select Redirect Server as the type of resource to configure.
Resource Mode	Select Master.
Company	Select a company only if Dedicated is checked.
Trace Level	Select a number to define the amount of detail to write to the logs (where 1 is least amount of detail and 5 is the most amount of detail).

- 2 Save the redirect server resource, which activates the Advanced button, from which you can access additional fields.
- 3 Complete the Advanced Redirect Server fields.

Field	Description
Callcenter's Unused	Displays a list of call centers, on the CCA system, that currently are not affected by a redirect server resource.
Callcenter's Used	Displays a list of are the call centers, on the CCA system, that are currently affected by a redirect server resource. NOTE: If nothing appears in this list, then the redirect server will not consider any contact center resources.
Server IP Address	Enter the IP address of the physical machine on which the redirect server resource is loaded.

- 4 Click Save.

Adding a Music Server Resource

Music Server resources are responsible for playing music to callers who are on hold or are waiting in a queue.

To add a music server resource

- 1 In the Add New Server dialog box, complete the Add New Server fields.

Field	Description
Host	Select the computer on which the resource is to be loaded.
Resource ID	A numeric, sequential identifier for the resource. NOTE: The system automatically assigns this number when creating the resource.
Port	Enter the IP port the resource uses for TCP/IP bus messaging.
Resource Type	Select Music Server as the type of resource to configure.
Resource Mode	Select Master.
Company	Select a company only if Dedicated is checked.
Trace Level	Select a number to define the amount of detail to write to the logs (where 1 is least amount of detail and 5 is the most amount of detail).

- 2 Save the music server resource, which activates the Advanced button, from which you can open the Music Server - Advanced dialog box.
- 3 Complete the Music Server Resource - Advanced fields.

Field	Description
IP Address	Enter the IP address of the physical machine on which the music server resource is loaded.
Payload	Select MuLaw, ALaw, or 9729. NOTE: This value must match the payload sent by the contact center server.
Frames Per Second	Select either 160 or 240 bytes per frame. For example, 160 sends 160 bytes every 20 milliseconds; 240 sends 240 bytes every 30 ms. NOTE: This value must match on all resources defined in a CCA network.
Starting RTP Port	Enter the port number the system uses to begin RTP streaming.
SIP Port	Enter the port value that the system uses to pass SIP messages. The default value is 5060.
Max Music Channel	The maximum number of Music Channels to establish.
Max Listener Channel	The maximum number of simultaneous listeners.
Description	Enter a Logical ID for the resource.

- 4 Click Save.

Adding a SNMP Agent Resource

SNMP Agent resources facilitate Simple Network Management Protocol (SNMP). This allows the system to use SNMP-capable applications to monitor CCA.

To add a SNMP agent resource

- In the Resource Information dialog box, complete the fields.

Field	Description
Host	Select the computer on which the resource is to be loaded.
Resource ID	A numeric, sequential identifier for the resource. NOTE: The system automatically assigns this number when creating the resource.
Port	Enter the IP port the resource uses for TCP/IP bus messaging.
Resource Type	Select SNMP Agent as the type of resource to configure.
Resource Mode	Select Master.
Company	Select a company only if Dedicated is checked.
Trace Level	Select a number to define the amount of detail that is written to the logs (where 1 is least amount of detail and 5 is the most amount of detail).

Adding a Unified Messenger Resource

Unified Messenger resources facilitate the delivery of Voice-mail, Fax, and ACD Email to the agent.

To add a unified messenger resource

- In the Unified Messenger Resource Information dialog box, complete the fields.

Field	Description
Host	Select the computer on which the resource is to be loaded.
Resource ID	A numeric, sequential identifier for the resource. NOTE: The system automatically assigns this number when creating the resource.
Port	Enter the IP port value that the resource uses for TCP/IP bus messaging.
Resource Type	Select Unified Messenger as the type of resource to configure.
Resource Mode	Select Master.

Field	Description
Country	Select a country only if Dedicated is checked.
Trace Level	Select a number to define the amount of detail that is written to the logs (where 1 is the least amount of detail and 5 is the most detail).

Adding a MP3 Converter Resource

MP3 Converter resources are responsible for converting Voice Recordings from WAV format to MP3 format. This conversion increases the capacity for storing voice recordings on the CCA file server by a factor of 10.

The setup of an MP3 Converter Resource is managed by two dialog boxes. The first is the Resource Information dialog box. It is similar to the Add New Resource dialog box, except that the Resource Information dialog box has different control options.

To add a MP3 converter resource

- 1 Place the MP3 Converter Resource on the file server system in CCA.

NOTE: CCA issues a strong reminder about this placement when you make the selection from the Resource Mode drop-down list.

- 2 Click OK to continue, and complete the MP3 Converter Resource Information fields.

Field	Description
Host	Select the computer on which the resource is to be loaded.
Resource ID	A numeric, sequential identifier for the resource. NOTE: The system automatically assigns this number when creating the resource.
Port	Enter the IP port value that the resource uses for TCP/IP Bus messaging.
Resource Type	Select MP3 Converter as the type of resource to configure.
Resource Mode	Select Master.
Trace Level	Select a number to define the amount of detail to write to the logs (where 1 is least amount of detail and 5 is the most detail).

- 3 Save the MP3 Converter Resource, which activates the Advanced button, from which you can access the second of the MP3 Converter Server dialog boxes.

- Complete the MP3 Converter Resource - Advanced fields.

Field	Description
Enable MP3 Encoding	If checked, MP3 Encoding is performed using the conversion program defined in the Command field.
Command	Enter the full path to the MP3 Conversion program.
FTP Path	Enter the directory use to store MP3 files.

- Click Save.

Adding an SMSC Gateway Server Resource

SMSC Gateway server resources are responsible for sending and receiving SMS message from SMS server resources by Short Message Peer-Peer Protocol.

To add an SMSC Gateway server resource

- In the SMSC Gateway Resource Information dialog box, complete the fields.

Field	Description
Host	Select the computer on which the resource is to be loaded.
Resource ID	Displays a numeric, sequential identifier for the resource. NOTE: The system automatically assigns this number when creating the resource.
Port	Enter the IP port that the resource will use for TCP/IP bus messaging.
Resource Type	Select SMSC Gateway Server as the type of resource to configure.
Resource Mode	Select Master.
Company	Select a company only if Dedicated is checked.
Trace Level	Select a number to define the amount of detail to write to the logs (where 1 is least amount of detail and 5 is the most amount of detail).

- Save the SMSC Gateway server resource, which activates the Advanced button, from which you can access additional fields.
- Complete the Advanced SMSC Server fields.

4 Click OK.

CAUTION: This resource requires extra steps in the configuration process. For more information on setting up database access, see [Configuring a JDBC Connection for an SMSC Gateway Resource](#) on page 23.

7

Adding Dedicated Resources

This chapter of Oracle Contact Center Anywhere Network Manager describes dedicated resources and how to add them. It includes the following topics:

- [Adding an ACD Server Resource on page 57](#)
- [Adding a CTI Server Resource on page 58](#)
- [Adding a Chat Server Resource on page 59](#)
- [Adding an Email Server Resource on page 60](#)
- [Adding an Internet Manager Server Resource on page 61](#)
- [Adding an IVR Server Resource on page 61](#)
- [Adding a Schedule Server Resource on page 62](#)
- [Adding a Predictive Server Resource on page 63](#)
- [Adding a Stats Server Resource on page 64](#)
- [Adding a SMS Server Resource on page 66](#)

Adding an ACD Server Resource

ACD Server resources are responsible for tracking agent state and for making routing decisions for interactions. The ACD Server decides which interaction is delivered to which agent for handling.

To add an ACD server resource

- In the ASP Services Resource Information dialog box, complete the fields.

Field	Description
Host	Select the computer on which the resource is to be loaded.
Resource ID	A numeric, sequential identifier for the resource. NOTE: The system automatically assigns this number when creating the resource.
Port	Type the IP port the resource will use for TCP/IP bus messaging.
Resource Type	Select ACD Server as the type of resource to configure.
Resource Mode	Select Master or Backup (depending upon the desired configuration).

Field	Description
Company	Select the company for which the ACD Server is being defined. NOTE: The Net Admin must create the company before it can be available for use.
Trace Level	Select a number to define the amount of detail to write to the logs (where 1 is least amount of detail and 5 is the most detail).

Adding a CTI Server Resource

CTI server resources are responsible for finding open contact center server and MCU server resources. Each CTI server resource can be associated only with certain contact center servers and MCU servers. If no such association is in place then the CTI Server considers all contact center servers and all MCU servers.

To add a CTI server resource

- 1 In the ASP Services Resource Information dialog box, complete the fields.

Field	Description
Host	Select the computer on which the resource is to be loaded.
Resource ID	A numeric, sequential identifier for the resource. NOTE: The system automatically assigns this number when creating the resource.
Port	Enter the IP port the resource uses for TCP/IP bus messaging.
Resource Type	Select CTI Server as the type of resource to configure.
Resource Mode	Select Master or Backup (depending upon the desired configuration).
Company	Select the company for which the CTI Server is being defined. NOTE: The Net Admin must create the company before it can be available for use.
Trace Level	Select a number to define the amount of detail to write to the logs (where 1 is least amount of detail and 5 is most).

- 2 Save the CTI Server Resource, which activates the Advanced button, from which you can access the second of the CTI Server dialog boxes.

- 3 Complete the columns of information in the CallCenter's tab.

Field	Description
Callcenter's Unused	These are the contact centers in CCA that currently are not affected by a Redirect Server Resource. Use the arrow buttons to move items from one column to another.
Callcenter's Used	These are the contact centers in CCA that are currently affected by a Redirect Server Resource. Use the arrow buttons to move items from one column to another.

- 4 Click the MCU Server's tab and change the information in the columns as needed.

Field	Description
MCU Server's Unused	These are the MCU Servers in CCA that currently are not affected by a Redirect Server Resource. Use the arrow buttons to move items from one column to another.
MCU Server's Used	These are the MCU Servers in CCA that are currently affected by a Redirect Server Resource. Use the arrow buttons to move items from one column to another.

Adding a Chat Server Resource

Chat Server resources are responsible for connecting data streams for chat sessions between agents and customers, or supervisors and agents.

To add a Chat server resource

- 1 In the ASP Services Resource Information dialog box, complete the fields.

Field	Description
Host:	Select the computer on which the resource is to be loaded.
Resource ID	A numeric, sequential identifier for the resource. NOTE: The system automatically assigns this number when creating the resource.
Port	Enter the IP port the resource uses for TCP/IP bus messaging.

Field	Description
Resource Type	Select Chat Server as the type of resource to configure.
Resource Mode	Select Master or Backup (depending upon the desired configuration).
Company	Select the company for which the Chat Server is being defined. NOTE: The Net Admin must create the company before it can be available for use.
Trace Level	Select a number to define the amount of detail to write to the logs (where 1 is least amount of detail and 5 is most detail).

- 2 Click Save

Adding an Email Server Resource

Email Server resources are responsible for pulling inbound email media (email, voicemail, fax) from the POP3 servers defined using Administration Manager, and for routing those emails to the correct agent.

To add an Email server resource

- 1 In the ASP Services Resource Information dialog box, complete the fields.

Field	Description
Host	Select the computer on which the resource is to be loaded.
Resource ID	A numeric, sequential identifier for the resource. NOTE: The system automatically assigns this number when creating the resource.
Port	Enter the IP port the resource uses for TCP/IP bus messaging.
Resource Type	Select Email Server as the type of resource to configure.
Resource Mode	Select Master or Backup (depending upon the desired configuration).
Company	Select the company for which the Email Server is being defined. NOTE: The Net Admin must create the company before it can be available for use.
Trace Level	Select a number to define the amount of detail to write to the logs (where 1 is least amount of detail and 5 is most detail).

- 2 Click Save

Adding an Internet Manager Server Resource

Internet Manager server resources manage the communication with the Web servers and for tracking agent and customer session state.

To add an Internet Manager server resource

- 1 In the ASP Services Resource Information dialog box, complete the fields.

Field	Description
Host	Select the computer on which the resource is to be loaded.
Resource ID	A numeric, sequential identifier for the resource. NOTE: The system automatically assigns this number when creating the resource.
Port	Enter the IP port the resource uses for TCP/IP bus messaging.
Resource Type	Select IM Server as the type of resource to configure.
Resource Mode	Select Master or Backup (depending upon the desired configuration).
Company	Select the company for which the IM Server is being defined. NOTE: The Net Admin must create the company before it can be available for use.
Trace Level	Select a number to define the amount of detail to write to the logs (where 1 is least amount of detail and 5 is most detail).

- 2 Click Save.

Adding an IVR Server Resource

IVR Server resources are for customer-written C++ IVR applications in a Dialogic environment.

NOTE: Release 7 and later of CCA does not typically use this server.

To add an IVR server resource

- 1 In the ASP Services Resource Information dialog box, complete the fields.

Field	Description
Host	Select the computer on which the resource is to be loaded.
Resource ID	A numeric, sequential identifier for the resource. NOTE: The system automatically assigns this number when creating the resource.
Port	Enter the IP port the resource uses for TCP/IP bus messaging.
Resource Type	Select IVR Server as the type of resource to configure.
Resource Mode	Select Master or Backup (depending upon the desired configuration).
Company	Select the company for which the IVR Server is being defined. NOTE: The Net Administrator must create the company before it can be available for use.
Trace Level	Select a number to define the amount of detail to write to the logs (where 1 is least amount of detail and 5 is the most detail).

- 2 Click Save.

Adding a Schedule Server Resource

Schedule Server resources manage call routing strategies that are based on the time of day or the day of the week, or both.

To add a schedule server resource

- 1 In the ASP Services Resource Information dialog box, complete the fields.

Field	Description
Host	Select the computer on which the resource is to be loaded.
Resource ID	A numeric, sequential identifier for the resource. NOTE: The system automatically assigns this number when creating the resource.
Port	Enter the IP port the resource uses for TCP/IP bus messaging.
Resource Type	Select Schedule Server as the type of resource to configure.
Resource Mode	Select Master or Backup (depending upon the desired configuration).

Field	Description
Company	Select the company for which the Scheduler Server is being defined. NOTE: The Net Administrator must create the company before it can be available for use.
Trace Level	Select a number to define the amount of detail to write to the logs (where 1 is least amount of detail and 5 is most).

- 2 Click Save.

Adding a Predictive Server Resource

Predictive Server resources control Predictive dialing campaigns.

To add a predictive server resource

- 1 In the ASP Services Resource Information dialog box, complete the fields.

Field	Description
Host	Select the computer on which the resource is to be loaded.
Resource ID	A numeric, sequential identifier for the resource. NOTE: The system automatically assigns this number when creating the resource.
Port	Enter the IP port the resource uses for TCP/IP bus messaging.
Resource Type	Select Predictive Server as the type of resource to configure.
Resource Mode	Select Master or Backup (depending upon the desired configuration).
Company	Select the company for which the Predictive Server is being defined. NOTE: The Net Administrator must create the company before it can be available for use.
Trace Level	Select a number to define the amount of detail to write to the logs (where 1 is least amount of detail and 5 is the most detail).

- 2 Save the Predictive Server Resource. This activates the Advanced button, from which you can access the second of the Predictive Server dialog boxes.

- 3 Complete the following Predictive Server fields.

Field	Description
Min Cache Size	Type the minimum Cache size the Predictive Server should use in the operation.
Max Cache Size	Type the maximum Cache size the Predictive Server should use in the operation.

Adding a Stats Server Resource

Stats Server resources are responsible for collecting and saving statistics about agents, workgroups, and interactions. This server provides data for historical and real-time reporting.

To add a stats server resource

- 1 In the ASP Services Resource Information dialog box, complete the fields.

Field	Description
Host	Select the computer on which the resource is to be loaded.
Resource ID	A numeric, sequential identifier for the resource. NOTE: The system automatically assigns this number when creating the resource.
Port	Enter the value for the IP port the resource uses for TCP/IP bus messaging.
Resource Type	Select Stats Server as the type of resource to configure.
Resource Mode	Select Master or Backup (depending upon the desired configuration).
Company	Select the company for which the Stat Server is being defined. NOTE: The Net Administrator must create the company before it can be available for use.
Trace Level	Select a number to define the amount of detail to write to the logs (where 1 is least amount of detail and 5 is the most detail).

- 2 Save the Stats Server Resource, which activates the Advanced button, where you can access the second of the Stats Server dialog boxes.
- 3 Complete the following fields in the Stats Tab.

Field	Description
Connection Type	Select a values from External and the database type that was selected in the System Configuration menu item.

Field	Description
Database Alias	Enter the name of the System DNS driver that was established for the database.
Database User	Type the Administrative user name for the database.
Database Pass	Type the password associated with the database user.

- 4 Click the Quality Control tab and complete the fields.

Field	Description
Connection Type	Select a values from External and the database type that was selected in the System Configuration menu item.
Database Alias	Enter the name of the System DSN driver that was established for the database.
Database User	Enter the Administrative user name for the database.
Database Pass	Enter the password associated with the database user.
Keep Copy	If checked, the system retains a copy in the registry.

- 5 Click the History tab and complete the fields.

Field	Description
Connection Type	Select a values from External and the database type that was selected in the System Configuration menu item.
Database Alias	Enter the name of the System DSN driver that was established for the database.
Database User	Enter the Administrative user name for the database.
Database Pass	Enter the password associated with the database user.
Keep Copy	If checked, the system retains a copy in the registry.

- 6 Click the Billing tab and complete the fields.

NOTE: The Billing allows billing information to be streamed to a separate database.

Field	Description
Database Alias	Enter the name of the System DSN driver that was established for the database.
Database User	Enter the Administrative user name for the database.

Field	Description
Database Pass	Enter the password associated with the database user.
Enable/Disable Master	<ul style="list-style-type: none"> ■ If Disable is checked, then Master Billing is disabled. ■ If Enable is checked, then Master billing is enabled.

7 Click Save.

Adding a SMS Server Resource

SMS Server resources are responsible for transferring SMS messages between agents and customers.

■ In the ASP Services Resource Information dialog box, complete the fields.

Field	Description
Host:	Select the computer on which the resource is to be loaded.
Resource ID	<p>A numeric, sequential identifier for the resource.</p> <p>NOTE: The system automatically assigns this number when creating the resource.</p>
Port	Enter the value for the IP port the resource uses for TCP/IP bus messaging.
Resource Type	Select SMS Server as the type of resource to configure.
Resource Mode	Select Master or Backup (depending upon the desired configuration).
Company	<p>Select the company for which the SMS Server is being defined.</p> <p>NOTE: The Net Administrator must create the company before it can be available for use.</p>
Trace Level	Select a number to define the amount of detail to write to the logs (where 1 is least amount of detail and 5 is the most detail).

8

Adding All Shared and Dedicated Resources

This chapter of Oracle Contact Center Anywhere Network Manager describes how to add all shared and dedicated resources, after first installing a host manager. It includes the following topic:

- [Adding All Shared and Dedicated Resources to a Company on page 67](#)

Adding All Shared and Dedicated Resources to a Company

Complete the steps in the following procedure to add all Shared and Dedicated resources at the same time.

To add all resources to a company

- 1 From Resource menu, click the Advanced Options.
Network Manager displays the Resource Options dialog.
- 2 Select a company to add resources.
- 3 Select a corresponding company.
- 4 Check to select one or more resources you want.
You can add both Master and Backup resources at once.
 - Select All: to check all resources
 - UnSelect All: to uncheck all selected resources
- 5 Click Save

9

Starting Resources

This chapter of Oracle Contact Center Anywhere Network Manager describes how to start Network Manager dedicated and shared resources. It includes the following topics:

- [Starting All Dedicated Resources for One Company on page 69](#)
- [Starting All Shared Resources on page 69](#)

Starting All Dedicated Resources for One Company

You can start all dedicated resources for:

- A single company
- All companies

Complete the steps in the following procedure to start dedicated resources for a single company.

To start dedicated resources for one company

- 1 Open the Company View and select the company for which you want to start resources.
- 2 From the Options menu, select Start All for Company.
- 3 Select Master to start master resources or Backup to start backup resources.

Starting All Dedicated Resources for All Companies

Complete the steps in the following procedure to start dedicated resources for all companies.

To start dedicated resources for all companies

- 1 From the Options menu, select Start Companies).
- 2 Select Master to start master resources or Backup to start backup resources.

Starting All Shared Resources

Complete the steps in the following procedure to start all shared resources.

To start all shared resources

- 1** From the Options menu, select Start All Shared.
The Start/Stop Resources progress box appears.
- 2** Click Close.

10 Using Diagnostic Tools

This chapter of Oracle Contact Center Anywhere Network Manager describes a number of diagnostic tools, which allow you to view activity on a Resource through Telnet, Busying Out trunks, Viewing Channels, and change log files to allow logs to be pulled from a host without taking the host offline. This chapter includes the following topics:

- [Using Telnet to View Resource Activity on page 71](#)
- [Forcing Resources to Open New Log Files on page 71](#)
- [Verifying the State of Channels Associated with a Contact Center Resource on page 72](#)
- [Placing All Channels into a Busy State on page 72](#)
- [Verifying Status on page 73](#)

Using Telnet to View Resource Activity

Telnet is for viewing activity on a resource. The information that appears in the Telnet window is specific to the Resource for which you started the Telnet session. Each Resource may have a simultaneous Telnet session for viewing activity.

Complete the steps in the following procedure to view resource activity using Telnet.

To view resource activity

- 1 From the target Resource, right-click to open the context menu.
- 2 Find the Telnet item, and then click Telnet.

A Telnet session that is attached to the resource opens. When activity occurs on the Resource, it shows in the Telnet window.

For best practice, use only those sessions relevant to the activity you are viewing. For example, in a system with a Redirect Server and several contact center server resource, it is appropriate to open Telnet sessions on the redirect server resource and all contact center servers that the Redirect Server is configured to use.

- 3 Make sure to close the sessions when they are no longer needed.

Forcing Resources to Open New Log Files

Use the Resources menu Change Log File item to force resources to open new log files. This is useful, if it is necessary to examine an open log file.

Complete the steps in the following procedure to force open a new log file.

To force resources to open a new log file

- 1 From the Resources menu, navigate to the Change Log File item.
- 2 Click Change Log File.

Alternately, you can right-click on a Resource, and then click Change Log File.

Verifying the State of Channels Associated with a Contact Center Resource

The View Channels sub-item, accessed from the Resources menu contact center item, is available when perspective is set to a contact center resource. View Channels shows the state of each channel associated with the contact center resource.

Complete the steps in the following procedure to view the state of each channel associated with a contact center resource.

To verify the state of a channel

- 1 From the Resources menu, navigate to the contact center item View Channels sub-item, and then click View Channels.

The CallCenter: X ChannelInfo dialog box opens.

- 2 Click the Refresh button to update the dialog box.

Placing All Channels into a Busy State

Use the Resources menu contact center item Busy Out sub-item to place all channels associated with a contact center resource into a Busy state. This action makes the contact center unavailable for use.

Complete the steps in the following procedure to place all channels into a Busy state.

To place channels in a Busy state

- 1 From the Resources menu, navigate to the contact center item's Busy Out sub-item.
- 2 Click Busy Out.

Verifying Status

Use the Option menu Verify Status item to verify statuses of selected resources (whether they are stopped or still running), in case Network Manager does not reflect the right statuses of resources. This action sends a message from Network Manager to the License Server to obtain the current statuses of resources. License Server verifies all resources, and then responds to Network Manager. The icon of each resource then changes accordingly.

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