

# Oracle® Advanced Outbound

Implementation Guide

Release 11*i*

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# Contents

<b>Send Us Your Comments</b> .....	vii
<b>Preface</b> .....	ix
Audience for This Guide .....	ix
How To Use This Guide .....	ix
Other Information Sources .....	x
Do Not Use Database Tools to Modify Oracle Applications Data .....	xv
About Oracle .....	xv
<b>1 Introduction</b>	
1.1 Oracle Interaction Center Overview .....	1-1
1.1.1 Oracle Advanced Inbound.....	1-2
1.1.2 Oracle Advanced Outbound .....	1-3
1.1.3 Oracle eMail Center .....	1-4
1.1.4 Oracle Scripting .....	1-4
1.1.5 Oracle Interaction Center Intelligence .....	1-5
<b>2 Technology, Requirements, and Performance</b>	
2.1 Advanced Outbound Architectural Overview .....	2-1
2.1.1 Advanced Outbound Physical Architecture .....	2-1
2.1.1.1 Oracle Advanced Outbound Architecture Diagram .....	2-2
2.1.2 Advanced Outbound Servers.....	2-4
2.1.2.1 The Advanced Outbound Central Server.....	2-5
2.1.2.2 The Advanced Outbound Dial Server .....	2-7

2.1.3	Call Center Connectors.....	2-10
2.1.4	Oracle Marketing Online Integration.....	2-10
2.1.4.1	List Integration.....	2-10
2.1.4.2	Campaign Schedules.....	2-12
2.1.4.3	List Entries.....	2-12
2.2	Minimum Software Requirements.....	2-14
2.3	Minimum Hardware Requirements.....	2-16
2.4	Sizing Parameters.....	2-18

### **3 Dependency Requirements and Verification**

3.1	Mandatory Dependencies.....	3-1
-----	-----------------------------	-----

### **4 Implementation Overview**

4.1	The Implementation Process.....	4-1
4.1.1	Implementation Planning.....	4-1
4.1.1.1	Collecting information.....	4-1
4.1.2	Setup Planning.....	4-3
4.2	Implementation Prerequisites.....	4-6
4.3	Process Description.....	4-9

### **5 Implementation Tasks**

5.1	Splice Advanced Outbound Into Your Database.....	5-2
5.2	Configure the CTI Middleware.....	5-3
5.3	Install and Configure the CT-Connect Client.....	5-4
5.4	Install Oracle Call Center Connectors.....	5-4
5.5	Configure Oracle Call Center Connectors.....	5-6
5.6	Install the VDU Software.....	5-8
5.7	Assign the IECAOUSER User Name to the CRM Resource.....	5-9
5.8	Install ICSM.....	5-10
5.9	Create the AO Central Server and Configure its Parameters.....	5-10
5.10	Assign the AO Central Server to a Server Node.....	5-18
5.11	Create the AO Dial Server and Configure its Parameters.....	5-18
5.12	Assign the AO Dial Server to a Server Node.....	5-21
5.13	Configure the Middleware for the AO Dial Server.....	5-21

5.14	Configure the Logical VDUs.....	5-24
5.15	Create OMO Outbound Campaign Schedule, Target Group, and List.....	5-27
5.16	Approve Campaign Schedule .....	5-29
5.17	Define Time Zone and Area Code Mapping Data .....	5-29
5.17.1	Create Area Code Mappings .....	5-30
5.17.2	Create Time Zone Mappings .....	5-31
5.18	Define Campaign Schedule Parameters.....	5-34
5.19	Define Calling Calendars .....	5-37
5.19.1	Create Country Calendars .....	5-38
5.19.2	Create User Defined Calendars.....	5-41
5.20	Create Recycling Algorithms.....	5-44
5.20.1	Creating Recycling Algorithms by Copying an Existing Algorithm.....	5-45
5.20.2	Creating Completely new Recycling Algorithms.....	5-46
5.20.3	Adding Pre or Post-Processing Actions.....	5-47
5.20.4	Adding Algorithm Conditions.....	5-48
5.21	Create Record Filters.....	5-51
5.22	Create Validation Rules.....	5-54
5.23	Define Calling List Parameters.....	5-57
5.24	Define Automated Messaging.....	5-59
5.25	Configure UWQ to launch the Outbound Desktop Application .....	5-61
5.26	Create and Configure Agents for Outbound Telephony.....	5-61
5.27	Associate Outcome/Result/Reason Codes to the Campaign Schedule .....	5-62
5.28	Assign Agents to the Campaign Schedule .....	5-63
5.29	Start the Servers .....	5-63

## 6 Diagnostics and Troubleshooting

6.1	Advanced Outbound Central Server Troubleshooting .....	6-1
6.1.1	Cannot Start the Server.....	6-1
6.1.2	AOCS Starts but Does not get Records .....	6-2
6.2	Advanced Outbound Dial Server Troubleshooting .....	6-2
6.2.1	Server Does not Start .....	6-2
6.2.2	Agent was not Able to Login.....	6-2
6.2.3	Agent cannot get Work .....	6-3
6.2.4	Dials Cannot be Placed.....	6-3
6.2.5	Receiving too few Records for List .....	6-3

6.2.6	Receiving no Records.....	6-4
6.3	Locating Debug and Trace Information.....	6-4

## **A Seed Data**

A.1	Adding Do Not Use Reason Codes.....	A-1
A.2	Adding List Priority Values.....	A-2
A.3	Setting the Positive Flag for Outcome and Result Codes.....	A-2

## **Glossary**

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**Oracle Advanced Outbound Implementation Guide, Release 11i**

**Part No. A95153-03**

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# Preface

## Audience for This Guide

Welcome to Release 11*i* of the Oracle Advanced Outbound Implementation Guide.

This guide assumes you have a working knowledge of the following:

- The principles and customary practices of your business area.
- Oracle Advanced Outbound

If you have never used Oracle Advanced Outbound, Oracle suggests you attend one or more of the Oracle Advanced Outbound training classes available through Oracle University.

- The Oracle Applications graphical user interface.

To learn more about the Oracle Applications graphical user interface, read the *Oracle Applications User's Guide*.

See Other Information Sources for more information about Oracle Applications product information.

## How To Use This Guide

This guide contains the information you need to understand and use Oracle Advanced Outbound.

- Chapter 1 - Provides an introduction to the Oracle Interaction Center suite of products.
- Chapter 2 - Provides Advanced Outbound architecture information, minimum software requirements, minimum hardware requirements, and sizing parameters.

- Chapter 3 - Provides dependency requirements for Advanced Outbound.
- Chapter 4 - Provides an overview of the implementation process.
- Chapter 5 - Provides detailed steps for each implementation task mentioned in Chapter 4.
- Glossary - Provides a list of the terms used in this guide and a definition for each.

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## **Other Information Sources**

You can choose from many sources of information, including online documentation, training, and support services, to increase your knowledge and understanding of Oracle Advanced Outbound.

If this guide refers you to other Oracle Applications documentation, use only the Release 11*i* versions of those guides.

## **Online Documentation**

All Oracle Applications documentation is available online (HTML or PDF). Online help patches are available on MetaLink.

## **Related Documentation**

Oracle Advanced Outbound shares business and setup information with other Oracle Applications products. Therefore, you may want to refer to other product documentation when you set up and use Oracle Advanced Outbound.

You can read the documents online by choosing Library from the expandable menu on your HTML help window, by reading from the Oracle Applications Document Library CD included in your media pack, or by using a Web browser with a URL that your system administrator provides.

If you require printed guides, you can purchase them online from the Oracle Store.

## **Documents Related to All Products**

### **Oracle Applications User's Guide**

This guide explains how to enter data, query, run reports, and navigate using the graphical user interface (GUI) available with this release of Oracle Advanced Outbound (and any other Oracle Applications products). This guide also includes information on setting user profiles, as well as running and reviewing reports and concurrent processes.

You can access this user's guide online by choosing "Getting Started with Oracle Applications" from any Oracle Applications help file.

## **Documents Related to This Product**

*Oracle Call Center Connectors Implementation Guide*

*Oracle Call Center Connectors Concepts and Procedures Guide*

*Oracle Applications Interaction Center Implementation Guide*

*Oracle Interaction Center Concepts and Procedures Guide*

*Oracle Marketing Online Implementation Guide*

*Oracle Marketing Online Concepts and Procedures Guide*

*Oracle TeleSales Implementation Guide*

*Oracle TeleSales Concepts and Procedures Guide*

*Oracle Universal Work Queue Implementation Guide*

*Oracle Universal Work Queue Concepts and Procedures Guide*

## **Installation and System Administration**

### **Oracle Applications Concepts**

This guide provides an introduction to the concepts, features, technology stack, architecture, and terminology for Oracle Applications Release 11*i*. It provides a useful first book to read before an installation of Oracle Applications. This guide also introduces the concepts behind Applications-wide features such as Business Intelligence (BIS), languages and character sets, and Self-Service Web Applications.

### **Installing Oracle Applications**

This guide provides instructions for managing the installation of Oracle Applications products. In Release 11*i*, much of the installation process is handled using Oracle Rapid Install, which minimizes the time to install Oracle Applications, the Oracle8 technology stack, and the Oracle8*i* Server technology stack by automating many of the required steps. This guide contains instructions for using Oracle Rapid Install and lists the tasks you need to perform to finish your installation. You should use this guide in conjunction with individual product user's guides and implementation guides.

### **Oracle Applications Supplemental CRM Installation Steps**

This guide contains specific steps needed to complete installation of a few of the CRM products. The steps should be done immediately following that tasks given in the Installing Oracle Applications guide.

### **Upgrading Oracle Applications**

Refer to this guide if you are upgrading your Oracle Applications Release 10.7 or Release 11.0 products to Release 11*i*. This guide describes the upgrade process and lists database and product-specific upgrade tasks. You must be either at Release 10.7 (NCA, SmartClient, or character mode) or Release 11.0, to upgrade to Release 11*i*. You cannot upgrade to Release 11*i* directly from releases prior to 10.7.

### **Maintaining Oracle Applications**

Use this guide to help you run the various AD utilities, such as AutoUpgrade, AutoPatch, AD Administration, AD Controller, AD Relink, License Manager, and others. It contains how-to steps, screenshots, and other information that you need to

run the AD utilities. This guide also provides information on maintaining the Oracle applications file system and database.

### **Oracle Applications System Administrator's Guide**

This guide provides planning and reference information for the Oracle Applications System Administrator. It contains information on how to define security, customize menus and online help, and manage concurrent processing.

### **Oracle Alert User's Guide**

This guide explains how to define periodic and event alerts to monitor the status of your Oracle Applications data.

### **Oracle Applications Developer's Guide**

This guide contains the coding standards followed by the Oracle Applications development staff. It describes the Oracle Application Object Library components needed to implement the Oracle Applications user interface described in the *Oracle Applications User Interface Standards for Forms-Based Products*. It also provides information to help you build your custom Oracle Forms Developer 6i forms so that they integrate with Oracle Applications.

### **Oracle Applications User Interface Standards for Forms-Based Products**

This guide contains the user interface (UI) standards followed by the Oracle Applications development staff. It describes the UI for the Oracle Applications products and how to apply this UI to the design of an application built by using Oracle Forms.

## **Other Implementation Documentation**

### **Oracle eTechnical Reference Manuals**

Each eTechnical Reference Manual (eTRM) contains database diagrams and a detailed description of database tables, forms, reports, and programs for a specific Oracle Applications product. This information helps you convert data from your existing applications, integrate Oracle Applications data with non-Oracle applications, and write custom reports for Oracle Applications products. Oracle eTRM is available on Metalink

### **Oracle Applications Message Reference Manual**

This manual describes Oracle Applications messages. This manual is available in HTML format on the documentation CD-ROM for Release 11i.

## Oracle CRM Application Foundation Implementation Guide

Many CRM products use components from CRM Application Foundation. Use this guide to correctly implement CRM Application Foundation.

### Training and Support

#### Training

Oracle offers training courses to help you and your staff master Oracle Advanced Outbound and reach full productivity quickly. You have a choice of educational environments. You can attend courses offered by Oracle University at any one of our many Education Centers, you can arrange for our trainers to teach at your facility, or you can use Oracle Learning Network (OLN), Oracle University's online education utility. In addition, Oracle training professionals can tailor standard courses or develop custom courses to meet your needs. For example, you may want to use your organization structure, terminology, and data as examples in a customized training session delivered at your own facility.

#### Support

From on-site support to central support, our team of experienced professionals provides the help and information you need to keep Oracle Advanced Outbound working for you. This team includes your Technical Representative, Account Manager, and Oracle's large staff of consultants and support specialists with expertise in your business area, managing an Oracle<sup>®</sup> server, and your hardware and software environment.

#### OracleMetaLink

OracleMetaLink is your self-service support connection with web, telephone menu, and e-mail alternatives. Oracle supplies these technologies for your convenience, available 24 hours a day, 7 days a week. With OracleMetaLink, you can obtain information and advice from technical libraries and forums, download patches, download the latest documentation, look at bug details, and create or update TARs. To use MetaLink, register at (<http://metalink.oracle.com>).

**Alerts:** You should check OracleMetaLink alerts before you begin to install or upgrade any of your Oracle Applications. Navigate to the Alerts page as follows: Technical Libraries/ERP Applications/Applications Installation and Upgrade/Alerts.

**Self-Service Toolkit:** You may also find information by navigating to the Self-Service Toolkit page as follows: Technical Libraries/ERP Applications/Applications Installation and Upgrade.

## Do Not Use Database Tools to Modify Oracle Applications Data

*Oracle STRONGLY RECOMMENDS that you never use SQL\*Plus, Oracle Data Browser, database triggers, or any other tool to modify Oracle Applications data unless otherwise instructed.*

Oracle provides powerful tools you can use to create, store, change, retrieve, and maintain information in an Oracle database. But if you use Oracle tools such as SQL\*Plus to modify Oracle Applications data, you risk destroying the integrity of your data and you lose the ability to audit changes to your data.

Because Oracle Applications tables are interrelated, any change you make using Oracle Applications can update many tables at once. But when you modify Oracle Applications data using anything other than Oracle Applications, you may change a row in one table without making corresponding changes in related tables. If your tables get out of synchronization with each other, you risk retrieving erroneous information and you risk unpredictable results throughout Oracle Applications.

When you use Oracle Applications to modify your data, Oracle Applications automatically checks that your changes are valid. Oracle Applications also keeps track of who changes information. If you enter information into database tables using database tools, you may store invalid information. You also lose the ability to track who has changed your information because SQL\*Plus and other database tools do not keep a record of changes.

## About Oracle

Oracle Corporation develops and markets an integrated line of software products for database management, applications development, decision support, and office automation, as well as Oracle Applications, an integrated suite of more than 160 software modules for financial management, supply chain management, manufacturing, project systems, human resources and customer relationship management.

Oracle products are available for mainframes, minicomputers, personal computers, network computers and personal digital assistants, allowing organizations to integrate different computers, different operating systems, different networks, and even different database management systems, into a single, unified computing and information resource.

Oracle is the world's leading supplier of software for information management, and the world's second largest software company. Oracle offers its database, tools, and applications products, along with related consulting, education, and support services, in over 145 countries around the world.



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# Introduction

## 1.1 Oracle Interaction Center Overview

Every customer interaction — a telephone call, an e-mail message, or a Web chat conversation — presents an opportunity to win new business or improve customer satisfaction. The Oracle Interaction Center supports the management and processing of customer relationship activity across all channels of customer contact.

The Oracle Interaction Center integrates with several customer relationship business applications in the Oracle E-Business suite. The Oracle Interaction Center consists of several modules. The modules relating to inbound telephony and outbound telephony are bundled separately.

The Oracle Interaction Center allows access to centralized customer information and business application functionality. Oracle Interaction Center integrates with front office (known as Customer Relationship Management or CRM) and back office (Enterprise Relationship Planning or ERP) applications, thereby enabling a workflow powered, end-to-end strategic e-business solution.

The Oracle Interaction Center products include:

- Oracle Advanced Inbound
- Oracle Advanced Outbound
- Oracle eMail Center
- Oracle Scripting
- Oracle Interaction Center Intelligence

### 1.1.1 Oracle Advanced Inbound

Oracle Advanced Inbound is required to telephony enable business applications in the Oracle eBusiness suite. Telephony-enabled means that the product has the capability of communicating with a telephone system for inbound and or outbound calls via the CTI middleware that handles the messaging between a telephone switch and the user's application. Oracle Advanced Outbound provides the corresponding outbound telephony capability.

The Oracle Advanced Inbound bundle consists of the following products: Call Center Technology, Oracle Universal Work Queue, Oracle Telephony Manager, Oracle Call Center Connectors and Oracle Interaction Blending.

The Oracle Advanced Inbound solution consists of a three-layer server architecture outlined below.

- Telephony platform layer consisting of the Oracle Call Center Connectors server which provides support for ACD/PBX switches and CTI meddlers provided by third-party vendors
  - ACDs/PBXs: Alcatel 4400, Aspect Call Center, Avaya DEFINITY G3, Cisco® Call Manager (VoIP Agent), Ericsson MD110, Nortel Meridian 1 ACD, Nortel Symposium Call Center Server, Rockwell Spectrum, Siemens HiCom 300E and 330E
  - CTI middlewares: Cisco Intelligent Contact Management (ICM), Intel CT Connect
- Oracle Advanced Inbound Server layer consisting of Oracle Advanced Inbound / Call Center Server processes
  - Oracle Interaction Center Server Manager
  - Oracle Interaction Queuing and Distribution
  - Oracle Telephony Manager
  - Oracle Routing Server
  - Oracle Inbound Telephony Server
  - Oracle Universal Work Queue
  - Oracle Call Center Connectors
  - Oracle Interaction Blending
- Business applications / agent desktop
  - Oracle Universal Work Queue desktop (agent desktop work queue)

- Oracle TeleService and/or Oracle TeleSales
- Media Desktop (soft phone)

**See Also**

- Oracle Advanced Outbound
- Oracle eMail Center
- Oracle Scripting
- Oracle Interaction Center Intelligence

### 1.1.2 Oracle Advanced Outbound

Oracle Advanced Outbound (AO) is another key part of the Oracle E-Business Suite of applications. It is the module of Oracle Interaction Center that addresses outbound telephony. AO consists of two main components:

- A tactical list manager, which determines who to call and when to call them
- An outbound dialing engine, which dials numbers and transfers live contacts to call center agents

Advanced Outbound integrates with and relies on Oracle Marketing Online (OMO) to create campaigns and lists to execute. AO serves as the execution arm for these marketing lists to maximize both outbound list penetration and agent productivity. AO also integrates with desktop applications like Oracle TeleSales and Oracle Collections to handle the actual customer interactions. Oracle Advanced Outbound can be used any time agents need to contact parties via the telephone.

AO also integrates with Oracle Interaction History to provide feedback that marketers can use to analyze and measure the success of the marketing campaign, thereby providing a closed-loop marketing process.

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**Note:** Oracle Advanced Outbound does not include any other telephony management modules. Oracle Advanced Inbound is required to use Advanced Outbound.

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**See Also**

- Oracle Advanced Inbound
- Oracle eMail Center

- Oracle Scripting
- Oracle Interaction Center Intelligence

### 1.1.3 Oracle eMail Center

Oracle eMail Center (eMC) is designed to satisfy requirements for inbound customer support, e-mail interaction management, and outbound sales and marketing e-mail message processing.

Oracle eMail Center helps your business respond to e-mail queries with clear and comprehensive replies in a much more efficient manner. eMC automatically generates suggested responses and scores them according to how closely they match the requirements.

#### **See Also**

- Oracle Advanced Inbound
- Oracle Advanced Outbound
- Oracle Scripting
- Oracle Interaction Center Intelligence

### 1.1.4 Oracle Scripting

Oracle Scripting is a set of tools to create and display information sequentially to end users. Oracle Scripting is composed of three components:

- Script Author
- Scripting Engine
- Survey Component

Oracle Scripting end users include interaction center agents (for the Scripting Engine), and customers or prospects using a Web browser (using the Survey component). Other users include individuals who build the scripts (Script Author users) and administrators of scripting or survey campaigns, who may use the Oracle Scripting Survey Admin console.

Using the Script Author, trained script developers use a visual layout development environment to build scripts and survey questionnaires. Using the Script Author tool, developers insert objects into a script and associate properties with each object, including panels, groups and blocks. Panels contain specific prompts geared to the audience of the script (and contain the only elements that will display at runtime).

Groups and blocks add code re-use capabilities and the ability to associate Java, PL/SQL, or other commands to a script. These objects control complicated processing and embed business rules that are evaluated at runtime. When completed, scripts are deployed to the Oracle Applications database.

The flow of a script in runtime can be fixed or dynamic, and is controlled by the business rules and on information provided upon script execution. Scripts are executed in a Java GUI in an interaction center (the Scripting Engine), or in a Web browser running JSP pages on a Web server (using the Survey component). Depending on the response to questions asked in the Scripting Engine GUI or the HTML page, the script developer can control the branching, or flow, from one panel to the next within the script. Custom commands can also affect flow of the script. This evaluation takes place in a manner transparent to the user.

The Survey component requires a survey campaign to be defined by an administrator using the Survey Admin console accessible from the eBusiness Center login. This console also provides several reports, which provide feedback to administrators regarding surveys and scripts that have been executed. For scripts, a Footprinting report can assist in tuning scripts by indicating every panel accessed, the order in which it was accessed, and how long the agent spent in each panel. For surveys, the administrator can review individual survey responses or summarized reports for a variety of information.

### **See Also**

- Oracle Advanced Inbound
- Oracle Advanced Outbound
- Oracle eMail Center
- Oracle Interaction Center Intelligence

## **1.1.5 Oracle Interaction Center Intelligence**

Oracle Interaction Center Intelligence is a Web-based reporting solution that provides intelligent reports that facilitate day-to-day operational and long-term strategic decisions.

The data is presented to the user in a easy-to-use portal format. This format gives the user a unified, role-based, easily customized view of Interaction Center information, including Oracle Universal Work Queue information, key performance measures relating to agent productivity, speed to answer, and abandon rate.

The product is built on an Oracle proprietary Java-based technology stack (Oracle CRM Foundation, also known as JTF). Users of Interaction Center Intelligence require minimal training, and no additional software is needed on the user's machine other than a Web browser.

Oracle Interaction Center Intelligence is based on a three-tier architecture:

- The front end (client) using the system via an Oracle Applications-compliant Web browser.
- The middle tier, which contains the Apache Web server and application server, included as part of the installation of Oracle Applications release 11*i*.
- The database tier, using an Oracle 8*i* or 9*i* database.

**See Also**

- Oracle Advanced Inbound
- Oracle Advanced Outbound
- Oracle eMail Center
- Oracle Scripting

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# Technology, Requirements, and Performance

## 2.1 Advanced Outbound Architectural Overview

This topic group provides information on the servers that comprise Advanced Outbound, its other components, how they are configured to work together, how they integrate with Oracle Marketing Online, the minimum software and hardware requirements, and sizing parameters for Advanced Outbound.

This topic group covers the following topics:

Advanced Outbound Physical Architecture

Advanced Outbound Servers

Call Center Connectors

Oracle Marketing Online Integration

Minimum Software Requirements

Minimum Hardware Requirements

Sizing Parameters

### 2.1.1 Advanced Outbound Physical Architecture

The Advanced Outbound product consists of three main components:

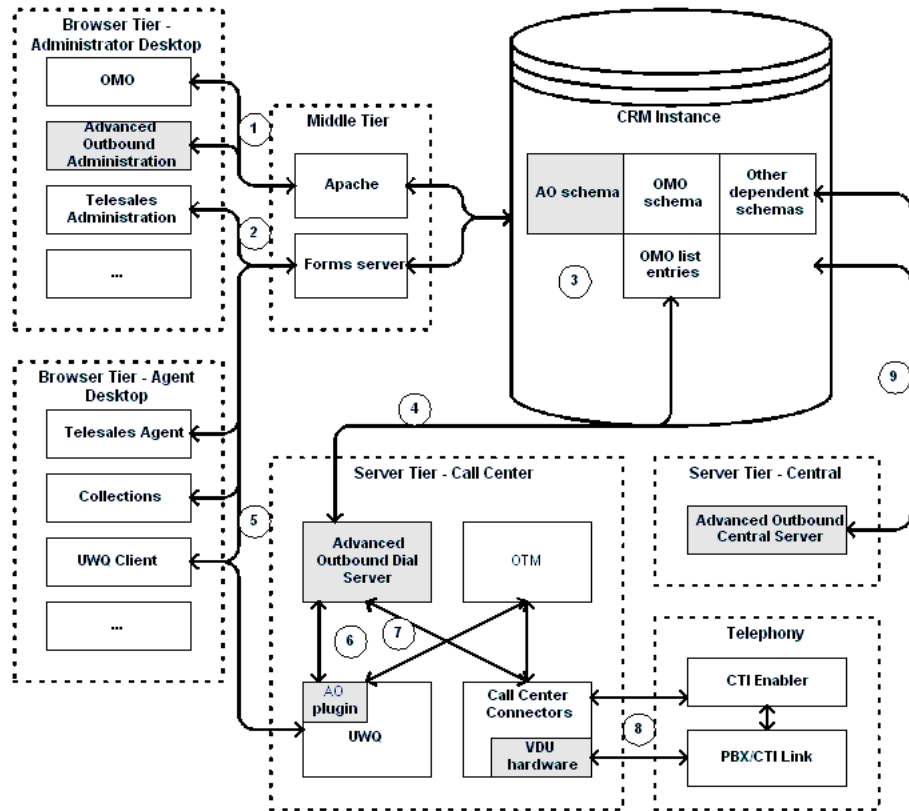
1. **Schema** - Advanced Outbound has schema objects (primarily tables and views), PL/SQL packages, as well as Java stored procedures. The Advanced Outbound schema stores:
  - Cached records

- Returned records
  - Call history
  - Recycling algorithms
  - Record filters
  - Runtime information on cache load
  - Subset information
  - VDU configuration data
  - Voice messages
2. **Administration GUIs** - Advanced Outbound has a set of administration user interfaces to perform the following tasks:
- Campaign schedule call center parameter setup
  - List call center parameter setup
  - Subset creation and maintenance
  - Record Filter creation and maintenance
  - Recycling creation and maintenance
  - VDU configuration
  - Voice messaging import and maintenance
  - Real time reporting
3. **Java servers** - Advanced Outbound has two Java server processes:
- Advanced Outbound Central Server
  - Advanced Outbound Dial Server

These servers are discussed in greater detail in the Advanced Outbound Servers topic.

### 2.1.1.1 Oracle Advanced Outbound Architecture Diagram

The following diagram shows the Advanced Outbound components in the context of a complete system. Components which are actually part of the Advanced Outbound product are highlighted in gray.



Numbered areas on the physical architecture diagram are explained below.

1. The Advanced Outbound administration GUI is on the HTML stack. It uses the 'Advanced Outbound Administrator' responsibility and it is part of the Oracle Advanced Outbound product.
2. To implement and administer other dependent components, other screens in both the HTML and Forms interfaces will be required. Examples of responsibilities used in Forms are 'Telesales Administrator' and 'CRM Administrator.'
3. Much of the Advanced Outbound functionality and integration happens through database schemas. There is an Oracle Advanced Outbound schema present in the CRM Instance and it is part of the Oracle Advanced Outbound product. Advanced Outbound is directly dependent on the schemas of the following:

- OMO (AMS) - Oracle Marketing Online
  - TCA (HZ) - Trading Community Architecture
  - JTA - Oracle Foundation
  - JTT - Oracle Foundation
  - IEO - Server schema and Logger
  - CCT - Call Center Connectors
4. The Advanced Outbound Dial Server removes records from Oracle Marketing lists indirectly through the central cache and returns these records through the return queue. This process is described in more detail in the Advanced Outbound Dial Server topic.
  5. The agent desktop applications, such as UWQ, Telesales, and Collections, are primarily Forms applications. All desktop applications integrate to Advanced Outbound through UWQ.
  6. Advanced Outbound integrates into UWQ through the Media Provider interface. An AO plugin exists in UWQ and is considered part of the Oracle Advanced Outbound product.
  7. The Advanced Outbound Dial Server uses Call Center Connectors for both CTI and VDU control.
  8. Call Center Connectors were modified for the 11.5.6 release to support VDU operations. The VDU hardware on it is considered part of the Oracle Advanced Outbound product.
  9. The Advanced Outbound Central Server is a lightweight server which does cache management, time zone and calendar management, and recycling. Notice from the diagram that the two Advanced Outbound servers do not communicate directly. The Advanced Outbound Central Server is part of the Oracle Advanced Outbound product.

## 2.1.2 Advanced Outbound Servers

This topic group discusses the responsibilities and architecture of the Advanced Outbound servers in greater detail, including:

The Advanced Outbound Central Server

The Advanced Outbound Dial Server

### 2.1.2.1 The Advanced Outbound Central Server

The Advanced Outbound Central Server is responsible for invoking the operations of Advanced Outbound that take place in the database. The Central Server does the following things:

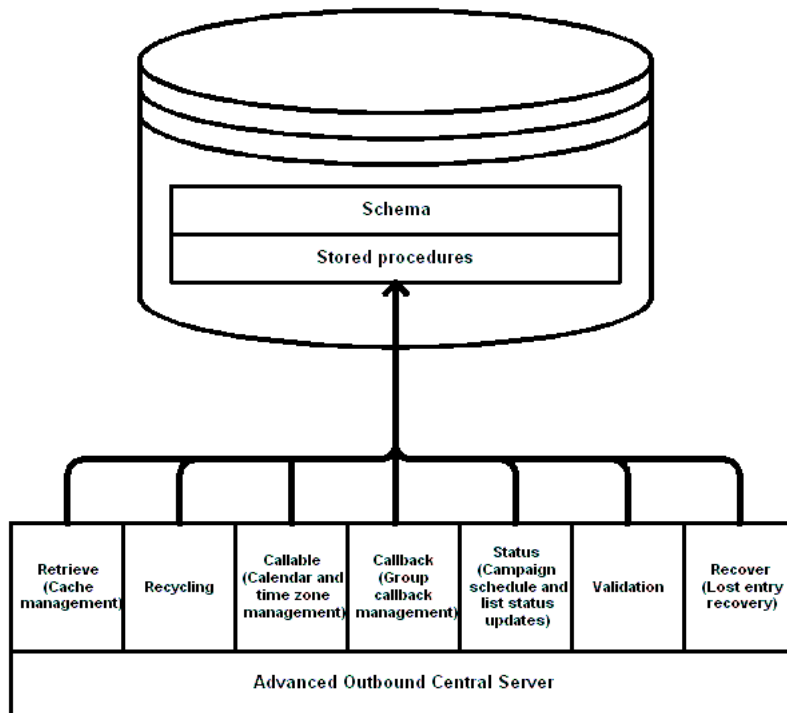
- Populates Advanced Outbound's central cache from available lists
- Changes the status of campaign schedules and lists when necessary
- Periodically calculates callable time matrices based on time zone, country code, list and campaign schedule information
- Validates list entries
- Executes recycling, which also populates call history and Interaction History when necessary
- Cleans up the cache to find lost list entries (those taken by applications but never returned)
- Rolls up reporting data

The Central Server has the following design characteristics:

- Because its functionality is implemented in the database, it is very lightweight.
- Its tasks are broken up into plugins. A basic understanding of this is helpful for understanding the Central Server's configuration.

The Central Server uses the Oracle Interaction Center Server Manager (ICSM) interface for configuration, for more information on ICSM please refer to the *Oracle Applications Interaction Center Implementation Guide*. A Central Server, as its name implies, exists once per instance. One Central Server performs all of the above tasks for all active campaign schedules and lists.

The following diagram depicts the Advanced Outbound Central Server, its responsibilities and its relation to the database:



The above diagram depicts the CRM instance and the Oracle Advanced Outbound Central Server. The AO Central Server is responsible for invoking the following procedures or "tasks":

- Cache management
- Recycling
- Calendar and time zone management
- Group callback management
- Campaign schedule and list status updates
- Validation
- Reporting
- Lost entry recovery

These procedures or "tasks" are plugins and exist as stored procedures in the schema on the CRM instance.

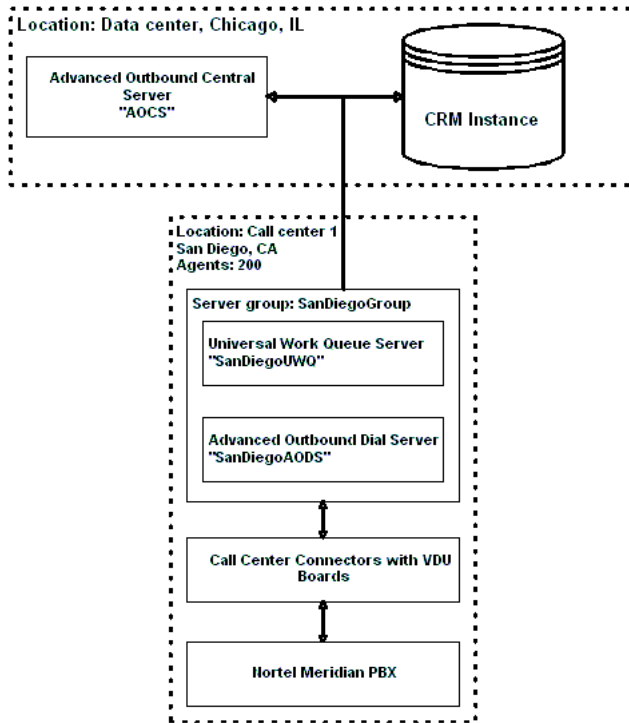
### 2.1.2.2 The Advanced Outbound Dial Server

The Advanced Outbound Dial Server is responsible for the following functional areas:

- Managing agent logins and agent state (via UWQ)
- Retrieving records from the central cache
- Delivering records through UWQ to desktop applications
- Placing progressive and predictive dials
- Predictive pacing
- Receiving record status data via UWQ from desktop applications
- Returning records to the database for processing by the recycling plugin

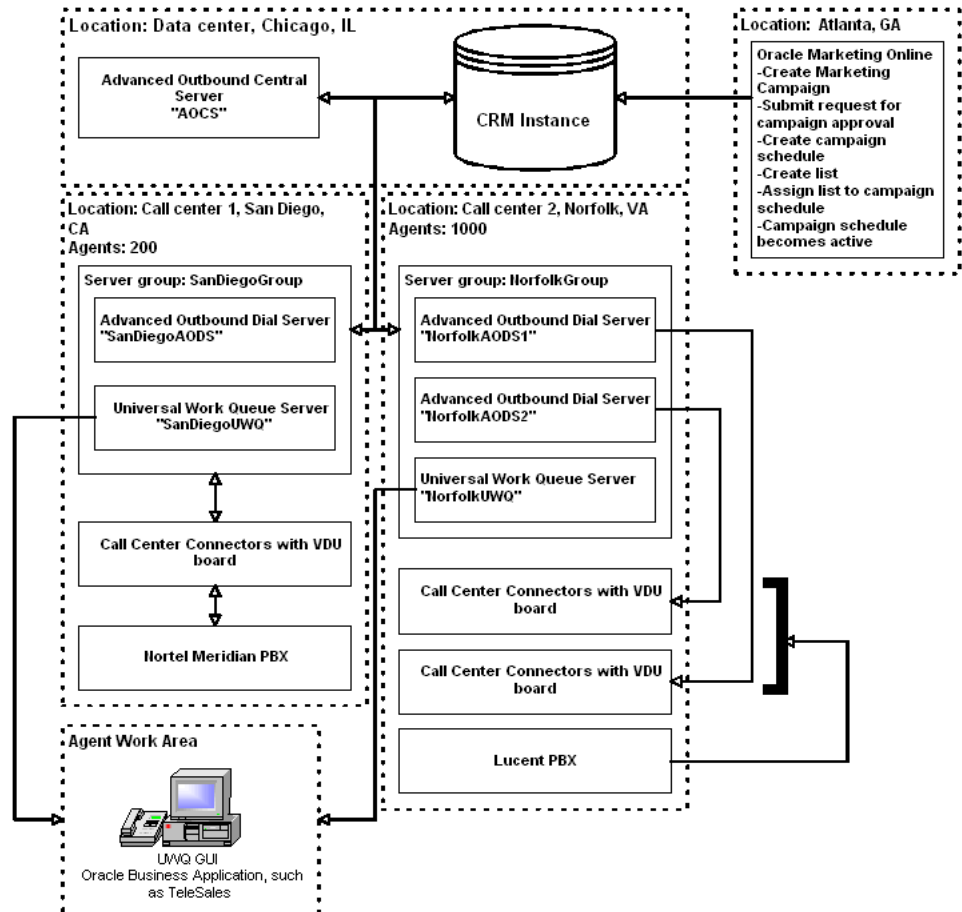
Unlike the Central Server, which resides alone in its own server group, Dial Servers belong to server groups in a similar manner to the other Interaction Center servers. For scalability purposes, multiple Dial Servers can be added to a single server group. Each Dial Server can support a large call center. When multiple Dial Servers are used, the Advanced Outbound UWQ Media Provider Plugin will automatically choose between them based on availability and load.

The following diagram provides a simple example layout of the Advanced Outbound servers, and illustrates the concept behind using server groups to set up distributed call centers:



The above diagram shows two interaction centers: one data center and one call center. The data center, which is located in Chicago, houses the CRM database instance and the Advanced Outbound Central Server. The call center, which is located in San Diego and has 200 agents, houses 1 instance of the Advanced Outbound Dial Server (SanDiegoAODS). In this example, the call center in San Diego uses a Nortel Meridian PBX.

The following diagram provides a complex example layout of the Advanced Outbound servers, and illustrates the concept behind using server groups to set up distributed call centers:



The above diagram shows three interaction centers: one data center, two call centers, an agent work area, and a marketing center. The data center, which is located in Chicago, houses the CRM database instance and the Advanced Outbound Central Server. Call Center 1, which is located in San Diego and has 200 agents, houses 1 instance of the Advanced Outbound Dial Server (SanDiegoAODS). Call center 2, which is located in Norfolk and has 1000 agents, utilizes 2 instances of the Advanced Outbound Dial Server (NorfolkAODS1 and NorfolkAODS2). In this example, call center 1 in San Diego uses a Nortel Meridian PBX and call center 2 in Norfolk uses a Lucent PBX. The agent work area utilizes the Oracle Universal Work Queue GUI and a business application, such as Oracle TeleSales.

The middleware setup, which defines the CCC server and the CTI server, determines which Call Center Connectors server will be pointed to. When defining the Middleware via the Call Center HTML Admin, the flag 'Use Advanced Outbound' will indicate that there are VDU cards housed in the CCC for AO. All the VDUs housed in the SAME CCC server node MUST point to the same Dial Server. The association to the Dial Server occurs at the VDU board definition level.

### 2.1.3 Call Center Connectors

The Call Center Connectors (CCC) component of Oracle Telephony Manager (OTM) is crucially important to Advanced Outbound. Part of CCC was modified to allow it to support hosting the Dialogic VDU hardware. CCC is owned by Oracle Telephony Manager (OTM); however, there are several additional AO-specific configuration steps to be done, which are explained in the following topics:

- Install Oracle Call Center Connectors
- Configure Oracle Call Center Connectors
- Install the VDU Software
- Configure the CTI Middleware Client
- Install and Configure the CT-Connect Client

### 2.1.4 Oracle Marketing Online Integration

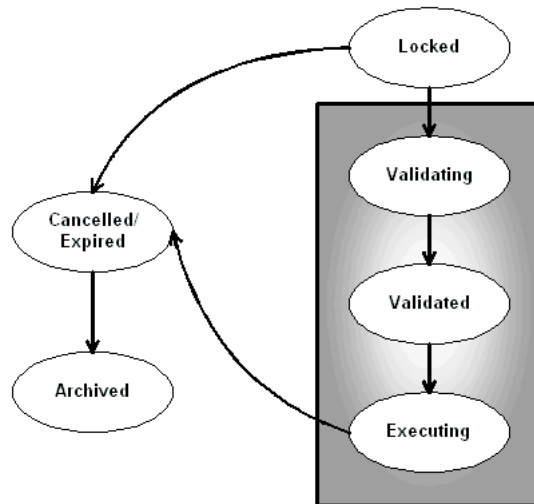
Advanced Outbound is tightly integrated with and dependent on Oracle Marketing Online (OMO). As such, OMO is a prerequisite for Advanced Outbound. Integration with Oracle Marketing Online deals primarily with sharing schema objects such as:

- lists
- campaign schedules
- list entries

#### 2.1.4.1 List Integration

List integration with Marketing is based around a shared state model. In some states (or statuses), Marketing owns a list and its state transitions. In some states, Advanced Outbound owns the list and its state transitions.

The following diagram shows the state transition model for lists (the list states and transitions shown in shaded area are owned by Advanced Outbound):



The above diagram depicts the various list state transitions. Only the validating, validated, and executing list states are owned by Advanced Outbound.

The list state begins as "locked", where it can be cancelled/expired or begin the validating process. If it is cancelled/expired, it will be archived. If it begins the validating process, it will be validated, and begin the executing process (all within Advanced Outbound). Once the execution process has completed, it will be cancelled/expired, then be archived.

Definitions of these states, as well as the key transition states, are as follows:

- **Locked (OMO).** The list is manually placed into this state using the Oracle Marketing Online interface when no more changes will be made to it. Up to this point, it can be regenerated at will.
- **Validating (OAO).** Lists are periodically checked by Advanced Outbound, and placed into this state when:
  - They are associated with a campaign schedule of the proper state
  - They are locked

At this point, they are validated, which is a relatively long-running process which checks each entry's phone numbers, country codes, and time zone information.

- **Validated (OAO).** When a list finishes the validation process, its state is changed to validated.

- Executing (OAO). Advanced Outbound moves lists to the executing state when:
  - The current date is between the start date of the list's campaign schedule and its end date
  - The list's state is validated
  - The list's call center ready flag is set to Y
- Expired (OMO). Lists are moved to expired when the campaign schedule end date passes.

Records will only be released from lists which are in the **executing** state, and also have **active** schedules.

#### 2.1.4.2 Campaign Schedules

Similar to lists, the sharing of campaign schedules is based around a state model. However, the campaign schedule integration is simpler.

The following conditions must be true for Advanced Outbound to use a campaign schedule from Oracle Marketing (and display it in the IEC Admin GUI):

- The activity is set to 'Telemarketing.'

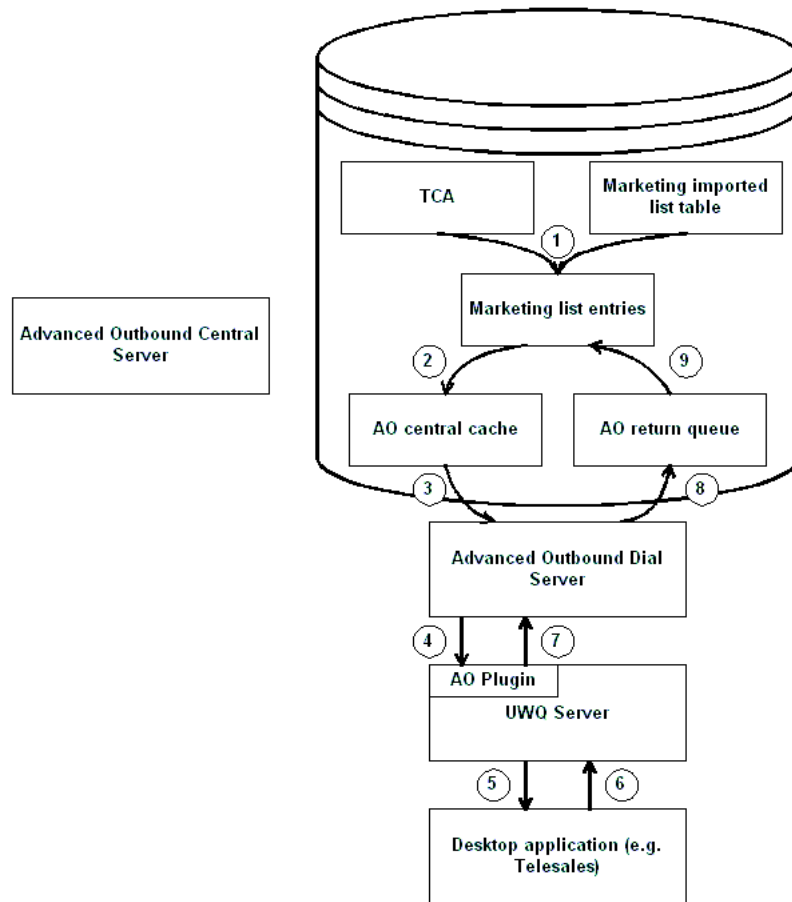
The following additional conditions must be true for Advanced Outbound to release records from lists within a campaign schedule:

- The campaign schedule's status code is active.

#### 2.1.4.3 List Entries

A list entry is one row in a list. It is also called a record. The fields on each list entry are always the same within one list. The list source type determines what fields are present on each list entry. In Oracle Marketing Online, list source types have been consolidated down to B2C, or 'Consumers,' and B2B, or 'Organization contacts.'

Regardless of the data present, the following diagram shows one release and return cycle for a record:



The numbered steps in the diagram are explained below:

1. Each list entry is created during Oracle Marketing Online list generation. They will be created based on data that exists either in TCA or tables that Marketing Online uses to store imported records.
2. The Central Server populates the cache. The cache population process intentionally checks out more records than it will need to make sure that there is not a cache miss, which is very expensive. Any extra records are periodically recycled with the 'AO System' outcome code. The records selected:
  - Will be restricted according to callable time ranges for their time zone, country code, list, and campaign schedule

- Will be restricted and ordered by callback times, if applicable
  - Will be ordered by list sort fields, if applicable
  - Are done so according to list and subset conditions, which are evaluated here
3. When the Dial Server pulls records from the central cache, it does the following:
    - Executes release strategy, taking into account things like quantum and priority. Release strategy is executed across lists in the context of a campaign schedule, as well as across subsets in the context of a list.
    - Checks do not call data.
    - Executes the list's record filter, if present.
  4. As agents request calls via Oracle Universal Work Queue (UWQ), the record data is delivered from the Dial Server to the Oracle Advanced Outbound (AO) plugin component. The AO plugin formats the record data in accordance with UWQ's generic media interface and sends an event to UWQ. If predictive or progressive dialing is being used, AO will subsequently send an event to UWQ reporting on the status of either the dial (progressive) or the transfer (predictive).
  5. UWQ sends an event to the application with the record data. The application retrieves the necessary additional data and begins the call.
  6. When the call is complete, the application returns the record and status data to UWQ.
  7. UWQ sends the record, through the AO plugin, back to the Dial Server.
  8. The Dial Server returns each record, along with outcome, result, and reason code information, into the return queue.
  9. Records are checked back into the Marketing list.

## 2.2 Minimum Software Requirements

To successfully implement Oracle Advanced Outbound, the following software must be installed and configured prior to the implementation of Oracle Advanced Outbound:

### **Oracle software**

- Oracle Applications release 11.5.6

- The Oracle CRM system database must be installed and configured prior to the installation of Oracle Advanced Outbound. You must enter database information during installation and configuration steps. Oracle Advanced Outbound supports Oracle 8i database release 8.1.6 or later
- CRM Foundation components, including Interaction History and Resource Manager.

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**Note:** Each of these products may have its own dependencies: Oracle Universal Work Queue requires Oracle Resource Manager and Oracle HRMS; Oracle Marketing Online requires Oracle Discoverer, and Oracle Workflow; etc.

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- The goal of Interaction History is to provide Oracle CRM applications with a common framework for capturing and accessing interaction information associated with every customer contact. IH is the central repository and provides a consistent API for tracking all automated or agent-based customer interactions. Oracle Interaction History is part of CRM Foundation and installed with Oracle Rapid Install 11i.
  - Resource Manager provides the capability for sales managers to easily add and update sales agent and partner profiles. It enables the managers to import sales group hierarchy from Oracle Human Resources on the vendor side, and to create and maintain agent and group profile for vendor or partner
- Oracle Marketing Online (OMO) 11.5.6
    - Oracle Marketing Online is a complete marketing automation software application designed to effectively plan, manage, execute, and ultimately analyze and optimize overlapping customer-focused programs to assist companies in winning and retaining profitable customers. Advanced Outbound interconnects with Oracle Marketing Online, which creates campaigns and lists to execute. You must purchase and implement Oracle Marketing Online separately from Advanced Outbound.
    - You also need Oracle Discoverer and Oracle Workflow for OMO
  - Oracle TeleSales or Oracle Collections (business application)
    - Oracle Advanced Outbound 11i is supported by Oracle TeleSales and Oracle Collections as desktop applications and should be implemented at this time.

- Oracle Universal Work Queue (UWQ)
  - UWQ is required for both Oracle Advanced Outbound and Oracle TeleSales. UWQ provides a graphical user interface that serves as a work portal for the agent and delivers telephony metadata to the agent work area.
  - Oracle HRMS for UWQ
  - Oracle Resource Manager for UWQ
- Oracle Advanced Inbound
  - Oracle Telephony Manager (required)
  - Oracle Call Center Connectors (required)
  - Oracle Telephony Media Controller (optional)
  - Oracle Inbound Telephony Server (optional)
  - Oracle Routing Server (optional)
  - Server Monitor (optional)

### **Third Party Software**

- Microsoft Windows NT 4.0, SP3 or later for Call Center Connectors (or Windows 2000)
- Oracle approved internet browser
  - Netscape XXX
  - Microsoft Internet Explorer 5.5
- CTI Middleware
  - CT-Connect Client 5.2 for Call Center Connectors machines
  - Cisco ICM (no client necessary for the Cisco ICM middleware)

## **2.3 Minimum Hardware Requirements**

When implementing Oracle Advanced Outbound, you should consider the following when deciding on your minimum hardware requirements:

- Advanced Inbound and CRM disk space and memory requirement guidelines
- Advanced Outbound disk space and memory requirement guidelines

- The number of agents in the call center
- Call center volume

Memory requirements vary with the number of CRM applications being used on a particular instance, the number of users using each of the applications, and the estimated volume of customer interactions and application use.

### **General Hardware Requirements**

You will need the following:

- ACD/PBX, outbound telephony lines (trunks)
  - The ACD/PBX must be installed and operational. It must also be configured by the vendor for computer telephony integration.
  - Trunks are dependent upon call volume, call center size, and so on. Each agent must have 1 channel to go out and 1 channel for the dialer. Oracle recommends a 2 to 1 trunk to agent ratio in cases of high voice rate (when we expect a high percentage of dials to result in a live voice) or when live agents are expected to leave answering machine messages. However, if the voice rate is low (say 30%), a smaller dialer-to-agent ratio is acceptable. This ratio should not be less than 1 to 1.
- Telephony middleware server
  - The telephony middleware server acts as the translator between the ACD/PBX and the Oracle Telephony Manager (OTM) and the Advanced Outbound Dial Server. Two choices are available, Dialogic CT-Connect and Cisco ICM.
  - When Dialogic CT-Connect is used, the Advanced Outbound Dial Server connects through CT-Connect through the network. OTM uses Call Center Connectors as an application programming interface (API) to reach CT-Connect. Both CT-Connect and ICM include server software that must be installed on an appropriate server machine. Consult respective Dialogic and Cisco documentation for details.
  - When Cisco ICM is used, the call center services use a Cisco-provided API to connect to the ICM server. No client is necessary on the Call Center connectors box(s).
- Agent telephone set

- The agent, supervisor, and manager telephone set must be installed and operational. Each telephone set must be able to accept incoming calls from the ACD/PBX.
- Call center server(s)
  - Oracle Advanced Outbound is dependent on several other Interaction Center Servers. These include:
    - Oracle Telephony Manager (OTM)
    - Universal Work Queue (UWQ)
    - Call Center Connectors (CCC) – see information listed below
- VDU boards, as necessary
  - The Advanced Outbound Dial Server utilizes Dialogic VDU hardware to do predictive dialing. These are physical hardware cards which must be placed into a server running Windows NT 4.0 or 2000. They allow Advanced Outbound to do voice detection and classification of non-contact calls. VDU cards must be configured into the database using the Advanced Outbound administrative interface before they can be used.
- Oracle Call Center Connectors server
  - The Call Center Connectors (CCC) component of Oracle Telephony Manager (OTM) is crucially important to Advanced Outbound. Part of CCC was modified to allow it to support hosting the Dialogic VDU hardware. CCC is owned by Oracle Telephony Manager (OTM), a part of the Advanced Inbound product bundles. There are, however, several additional AO-specific configuration steps to be done
  - The Advanced Outbound Dial Server uses Call Center Connectors for both CTI and VDU control. Call Center Connectors were modified for the 11.5.6 release to support VDU operations. The VDU hardware on it is considered part of the Oracle Advanced Outbound product.

## 2.4 Sizing Parameters

The Advanced Outbound services can be run on any approved CRM platform. However, Oracle Call Center Connectors can be run only on Windows NT 4.0 or Windows 2000 servers.

Sizing parameters for the servers:

- The Advanced Outbound Dial Server is moderately memory intensive, however, it is heavily network intensive due to its communications with the UWQ agent and UWQ server, as well as the database. File system size is not a major factor.
- The Advanced Outbound Central Server is not memory or server intensive, however, it does rely heavily upon the database. Therefore, when you are considering an AO implementation, ensure that you have allocated enough disk space, memory, and have a large enough CPU to handle all of the requirements that AO will place on it in the future.

Factors that determine the hardware size:

- Number of concurrent agents
- Expected volume of calls
- Network throughput

The number of services (one service = one running instance of the software) and servers varies, based on the needs of an individual call center. There will only be one Advanced Outbound Central Server needed per CRM instance, but you may need multiple Advanced Outbound Dial Servers (depending on your business needs).



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# Dependency Requirements and Verification

This topic group provides information about the Oracle and non-Oracle products that are dependencies for Advanced Outbound.

## 3.1 Mandatory Dependencies

The dependencies for Oracle Advanced Outbound can be divided into two categories, including: Oracle products, and third party products.

### Oracle Products

These products must be completely installed and setup prior to the installation and implementation of Oracle Advanced Outbound. For more information on installing these products, please refer to each product's individual Installation and Implementation Guides. Each of these products may have its own prerequisites, for example TeleSales and UWQ require Oracle Resource Manager and can integrate with Oracle HRMS.

Oracle Advanced Outbound depends on the following Customer Relationship Management (CRM) products:

- CRM Foundation, including Interaction History and Universal Work Queue (non media component)
- Oracle Marketing Online
  - Campaign, Schedule, List
  - Prepare Campaigns/Schedules for AO
- Oracle Universal Work Queue
  - Enables Media for AO

- Associates AO with appropriate Media Action
- An Oracle business application (such as Oracle Telesales or Oracle Collections)
- Oracle Advanced Inbound (unless using manual dialing)
  - Oracle Telephony Manager
  - Telephony Media Controller (optional)
  - Inbound Telephony server (optional)
  - Routing server (optional)
  - Server Monitor (optional)
  - UWQ server
  - Call Center Connectors

Oracle Advanced Outbound integrates with Oracle Advanced Inbound in several ways:

- The Advanced Outbound Dial Server must be added to the Interaction Center Server group which was created during the Advanced Inbound Implementation
- The VDU boards which are used by the dialing server for Predictive dialing are housed on the Call Center Connectors server.

### **Third Party Products**

- Dialogic CT-Connect or Cisco ICM

These are middleware products that provide a command interface between computers and telephony -- computer-telephony integration (CTI). They enable Oracle Advanced Outbound to issue dialing commands to the PBX and to route successful calls to the agent desktop.

- A web browser - Microsoft Internet Explorer (5.5 or above with Service Pack 2)
- An ACD or PBX switch approved for use with Oracle Advanced Outbound

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# Implementation Overview

## 4.1 The Implementation Process

The entire implementation process consists of the following high level tasks:

- Planning the implementation
  - Collecting Information
  - Preparing the setup
- Verifying Administrator User Privileges
- Configuring and testing the VDU(s), PBX, and Telephony
- Configuring Oracle Marketing Online
- Configuring the Advanced Outbound Servers
- Testing and Troubleshooting the implementation

### 4.1.1 Implementation Planning

There are two areas of consideration when planning an Oracle Advanced Outbound implementation. The first area includes collecting the information you need to implement the application. The second area involves system configuration planning (size, speed, number, etc.).

#### 4.1.1.1 Collecting information

Use the following list of questions to determine your implementation needs:

1. What type of Outbound Application will you be using? Oracle TeleSales? Oracle Collections?
2. What dialing strategy will you be using? Manual? Progressive? Predictive?

Depending on your dialing method, you may need to confirm the best way to handle the processing of the list. How many agents will be handling the campaign schedule? If there are a few, you might want to run a progressive campaign, due to the complex algorithms that predictive dialing needs to run.

3. What is your PBX Name? PBX type? PBX server?
4. What Computer Telephony Integration will you be using? (Server, type, configuration, etc.).
5. What is your VDU type? VDU port name and extension assignments?
6. What are your agent extension numbers?
7. What will your outbound call volume be (calls/hr., average, low and peak usage)?
8. Do you have any special calling requirements and restrictions (restrictions on number of calls, call time, etc.)?
9. What will you be using for your test agent information?
10. What will you be using for your test data?
11. What validation information will you be using?
  - Area Code/Time Zone Mapping Data
12. How do you want to handle call outcome and recycle handling information?
  - Do you want to emphasize initial call attempts or emphasize persistent callbacks?
  - How do you want to handle wrong numbers and other special cases?

For every campaign schedule, you need to create recycling strategies that best correspond with the needs of the business. How do you plan to handle a record that is returned after it has been dialed for a non-connect? Do you really need to reach the client, or can the call wait a day. How do you plan to handle Special Information Tones (SIT)?

- Drop records after sale or contact
- Callback
- Busy call handling
- No answer call handling
- Answer machine handling

- Other call outcomes
  - Limits on call attempts
13. What Dialing Access Information will you need?
- T1, E1 line control mode (Onhook/Offhook)
  - External line access (dial 9)
  - Local calls (same area code, different area code)
  - Long distance access code (same area code, different area code)
  - International access code
  - Area code information
  - Special dialing information for PBX (always dial all digits, etc.)
14. What are the sources of records to be dialed?
- Existing customer data?
  - Imported prospect data?
  - Legacy systems?

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**Note:** While there may be one or many original sources of business data, in Advanced Outbound 11i, all data come from Oracle Marketing Online and is thereby part of the Oracle TCA customer model.

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## 4.1.2 Setup Planning

Setup planning involves matching your business requirements to the software and hardware components necessary to best satisfy those requirements. The list of questions in this topic will aid you in determining your hardware requirements, and the sizing parameters for the Advanced Outbound servers.

### General Questions

Use the following list of questions to help determine your system configuration:

1. What type of switch will you be using?
2. What type of telephone sets will your agents be using?
3. What type of VDU boards will you be using? T1? E1?

4. What are the extension numbers for the dialers?
5. What are your agent extension numbers?

### **System Sizing Questions**

Use the following list of questions to help determine your sizing needs:

1. How big will your call center be? How many agents will you have?
2. What call volume are you expecting in your call center?
3. Will your call center be single site or multi site?

### **Sizing Parameters for the Dial Server**

The Advanced Outbound Dial Server is moderately memory intensive, however, it is heavily network intensive due to its communications with the UWQ agent and UWQ server, as well as the database.

Each Dial Server can handle a maximum of 250 dialers. If all 250 dialers are active at the same time (all making calls), 250 threads will be spawned. Each thread requires about 2 Megs of memory. At maximum capacity each Dial Server would need 512 Megs of memory.

In terms of agents, Oracle recommends two trunks per agent in cases of high voice rate (when a high percentage of dials resulting in a live voice is expected) or when live agents are expected to leave answering machine messages. If the voice rate is low (i.e. 30%), a smaller trunk-to-agent ratio (1.8 to 1) can be acceptable. One of the trunks is used for the dialer and the other is used to access external lines. The dialer-to-agent ratio should always be 1 to 1.

1. How many dial servers will you need?

Each dial server can handle 250 agents for Predictive dialing and 750 agents for manual dialing.

2. To what server group will each dial server belong?
3. What dialing scripts will you use?

### **Sizing parameters for the Central Server**

The Advanced Outbound Central Server is not memory or server intensive, however, it does rely heavily upon the database. Therefore, when you are considering an AO implementation, ensure that you have allocated enough disk space, memory, and have a large enough CPU to handle all of the requirements that AO will place on it in the future.

Most of the Central Server's operation consists of scheduling the execution of pl/sql on the database. However, it requires 20 or so database connections (problems will arise if the database connection (dbc) file has a low value for the number of connections (NUM\_CONNECTIONS)).

The amount of disk space is largely determined by the level of logging you want to utilize. Logging levels can be set from 0 to 4.

- Oracle recommends that you use Output Level 1 in normal operations for moderate logging without slowing performance or taking up large amounts of disk space.
  - Level 0 returns no logging, but results in the fastest performance and takes up very little disk space.
  - Level 4 returns the most detailed logging, such as for troubleshooting, but results in slower performance and requires a large amount of disk space.
1. What calling calendars will you need?
  2. What validation rules do you want to use?
  3. What recycle rules do you want to use?
  4. How do you want to handle callbacks, recovery, reporting?
  5. What number of calls per month do you anticipate?

### **System and User Information Questions**

Use the following list of questions to help determine the information about your server groups, system, and users:

1. What is the name of the server group you created when setting up Advanced Inbound?

Server groups are established by Universal Work Queue as a conceptual means of associating various call center services with each other. The Advanced Outbound Dial Server is the AO component that must be defined as part of a server group in order for UWQ to be able to communicate with AO. The Advanced Outbound Central Server must be identified, but not placed in a server group.

Only servers within the same server group can communicate with each other. Each server can be a member of one and only one server group. Every call center agent is also associated with one and only one server group. This allows the agent to connect to the services provided by the servers from that server group.

You should link the Advanced Outbound Dial Server into the Server Group you created when setting up Oracle Advanced Inbound.

2. Have you gathered all of the necessary user information for every user of Advanced Outbound?

This information should include:

- Employee type
  - Employee name
  - User ID
  - Password
  - Campaigns to which they will be assigned
3. Assign the correct responsibilities to the Advanced Outbound administrator:
    - **Oracle Marketing Super User** - allows user to manage Oracle Marketing Operations.
    - **Advanced Outbound Administrator** - allows user to manage Advanced Outbound Operations.
    - **Call Center HTML Administrator** - allows user to manage Call Center ICSM.

## 4.2 Implementation Prerequisites

Before you can implement Oracle Advanced Outbound, you must ensure the following tasks have been performed:

1. Complete an administrative-tier installation of Oracle Applications, release 11.5.6.
2. Complete a web-tier installation of Oracle Applications, release 11.5.6 on each machine identified.
3. Run Rapid Install.

Rapid Install installs the Oracle8i Enterprise Edition technology stack and the Oracle Applications file system. Rapid Install installs the following:

- Oracle8i Enterprise Edition (8.1.6) with interMedia Text and Spatial
- Oracle Forms Server, Oracle Reports Server, Oracle Graphics, and WebDB listener

- Application servers WebDB and Apache, with JServ (Web tier)
  - JRE (Java run-time environment)
  - Selected Oracle applications
    - Oracle CRM Foundation, including Resource Manager and Interaction History
    - Oracle Marketing Online (OMO)
    - Desktop Application such as Oracle TeleSales (OTS) or Oracle Collections
    - Oracle ICSM (including all Advanced Inbound and Advanced Outbound servers)
  - JInitiator
    - When you access certain parts of the system (for example, those based on Forms or Discoverer), you need JInitiator to supply the Java virtual machine. The latest version of JInitiator that was available at the time of the product release is on the Oracle Applications Rapid Install Server Technology CD, which can be found in the `\util\jinitiator` directory in the `Common` directory of your file system.
    - Implemented as a plug-in (Netscape Communicator) or ActiveX component (Microsoft Internet Explorer), Oracle JInitiator allows you to specify the use of the Oracle Java Virtual Machine (JVM) on Web clients instead of having to use the default JVM of the browser.
    - When it is needed, the browser attempts to load Oracle JInitiator. If Oracle JInitiator has not been previously installed, the browser downloads the necessary installation executable to the PC. Once installed, Oracle JInitiator runs the Oracle Forms Java applet and starts an Oracle Applications session.
4. Install an ACD or PBX switch and approved CTI middleware.
- CTI middleware - CT Connect or Cisco ICM
5. Implement Oracle Marketing Online.
- Prerequisites for the OMO implementation include:
- General Ledger (GL)
  - Human Resources (HRMS).
  - Oracle Discoverer

- Oracle Workflow

Particular attention should be paid to the creation of marketing mediums as well. Marketing mediums are used in the integration with Advanced Outbound to determine which user receives the approval workflow for a given campaign schedule.

To be compatible with Oracle Advanced Outbound, use the following Marketing source view types:

**Organization\_List**

AMS\_TAR\_ORGANIZATION\_CONTACT\_V

**Person\_List**

AMS\_TAR\_PERSON\_CONTACT\_V

6. Install and implement Oracle Advanced Inbound.
7. Implement Oracle Universal Work Queue.

Implementation of UWQ should include the following steps:

- Creation of server group(s), most likely one per call center.
- Creation of UWQ classifications for the business applications implemented above.

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**Note:** IUWQ must be Media enabled to work with Advanced Outbound.

Use the Call Center HTML Administrator responsibility to associate the appropriate form with Advanced Outbound (under the UWQ Media Association tab).

Set the following system profile settings for AO to "Yes":

- IEU: Media: Telephony
  - IEU: Queue Order: Advanced Outbound Telephony
  - IEU: Queue: Advanced Outbound Telephony
- 
- 

8. Implement the business applications (Oracle TeleSales or Oracle Collections).  
The business application(s) should be implemented at this point.

## 4.3 Process Description

Once you have completed the tasks outlined in the Implementation Prerequisites topic, you can begin implementing Oracle Advanced Outbound.

This topic group provides high level implementation tasks necessary to implement Oracle Advanced Outbound.

1. Splice Advanced Outbound into your enterprise database.  
If this is the first time you have applied IEC patches on this site, you should run ADSPLICE to apply the patch that contains the IEC product definitions in the database.
2. Install and configure the CTI middleware (if not done as part of the Oracle Advanced Inbound installation).
3. Install and Configure the CT-Connect Client (unless you are using Cisco ICM).
4. Install Oracle Call Center Connectors (if not done as part of the Oracle Advanced Inbound installation).
5. Configure Oracle Call Center Connectors (if not done as part of the Oracle Advanced Inbound installation).
6. Install the VDU software.

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**Note:** This is only necessary if predictive dialing will be used.

Servers housing VDU cards must run Windows NT or 2000 for the 11.5.6 release. The extensions on the PBX should be allocated for use by Advanced Outbound, and a simple test using the tools shipped with the VDU hardware can be run.

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7. Assign the IECAOUSER User Name to the CRM Resource
8. Install ICSM.
9. Create the AO Central Server and Configure its Parameters
10. Assign the AO Central Server to a Server Node
11. Create the AO Dial Server and Configure its Parameters
12. Assign the AO Dial Server to a Server Node
13. Configure the Middleware for the AO Dial Server

14. Configure the Logical VDUs
15. Create OMO Outbound Calling Campaign, Campaign Schedule, and Target List
16. Approve Campaign Schedule
17. Define Time Zone and Area Code Mapping Data
18. Define Calling Calendars (Country and User Defined)
19. Create Recycling Algorithms
20. Create Record Filters
21. Create Validation Rules
22. Define Campaign Schedule Parameters
23. Define Calling List Parameters
24. Define Automated Messaging
25. Configure UWQ to Launch the Outbound Desktop Application
26. Create and Configure Agents for Outbound Telephony
27. Assign Outcome/Result/Reason Codes to the Campaign Schedule
28. Assign Agent to Campaign Schedule
29. Start the Servers

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## Implementation Tasks

This topic group provides detailed steps to perform all of the necessary tasks to implement Oracle Advanced Outbound, including:

- Splice Advanced Outbound Into Your Database

- Configure the CTI Middleware

- Install and Configure the CT-Connect Client

- Install Oracle Call Center Connectors

- Configure Oracle Call Center Connectors

- Install the VDU Software

- Assign the IECAOUSER User Name to the CRM Resource

- Install ICSM

- Create the AO Central Server and Configure its Parameters

- Assign the AO Central Server to a Server Node

- Create the AO Dial Server and Configure its Parameters

- Assign the AO Dial Server to a Server Node

- Configure the Middleware for the AO Dial Server

- Configure the Logical VDUs

- Create OMO Outbound Calling Campaign, Campaign Schedule, and Target List

- Approve Campaign Schedule

- Define Time Zone and Area Code Mapping Data

- Define Calling Calendars (Country and User Defined)
- Create Recycling Algorithms
- Create Record Filters
- Create Validation Rules
- Define Campaign Schedule Parameters
- Define Calling List Parameters
- Define Automated Messaging
- Configure UWQ to Launch the Outbound Desktop Application
- Create and Configure Agents for Outbound Telephony
- Assign Outcome/Result/Reason Codes to the Campaign Schedule
- Assign Agent to Campaign Schedule
- Start the Servers

## 5.1 Splice Advanced Outbound Into Your Database

If this is the first time you have applied IEC patches on this site, you should run ADSPLICE to apply the patch that contains the IEC product definitions in the database. ADSPLICE only needs to be run once for each set of products. If IEC product information is already defined in this site, you do not need to perform this task. If you are upgrading from an earlier version (that does not use the code IEC), you will still need to run ADSPLICE.

Use the steps below to splice Advanced Outbound into your database:

### Steps

1. Copy the following text files from 1932843/iec/admin to the admin directory under your APPL\_TOP.
  - iecprod.txt
  - iecterr.txt
  - newprods.txt
2. Change directories to the admin directory under your APPL\_TOP.
3. Edit newprods.txt to reflect the tablespaces that the IEC user and schema should use.

4. Run `adsplce` from the admin directory under your `APPL_TOP`. When you are asked to enter the name of your AD Splicer control file, type **newprods.txt**.  
AD Splicer will regenerate the environment file (e.g. `APPLSYS.env` under `APPL_TOP`) or registry. If you have made manual modifications to your environment file or your registry, you will need to apply those changes again. `IEC_TOP` must be defined. You can confirm this by using the `echo` command to display `IEC_TOP`.
5. From this new environment, use the `AutoPatch` utility to apply the patch driver (`c1932843.drv`).  
This is the copy driver.

## 5.2 Configure the CTI Middleware

Use the steps below to configure the CTI middleware.

### Prerequisites

If there is only one Call Center Connector server node, the middleware configuration should have already been accomplished in the Advanced Inbound installation and configuration process. Some parameters may have already been defined during the Advanced Inbound installation. However, additional Advanced Outbound parameters must be defined.

If there are multiple Call Center Connector server nodes, then Middleware must be configured for each of the Call Center Connector server nodes.

### Steps

1. Login to Oracle Applications with the **Call Center HTML Administrator** responsibility and select **Call Center**.
2. Select **Middleware**.
3. Select **Server Group**.
4. Click **Create**.  
The Middleware Details window appears.
5. Type the server group, middleware name, IP address, port, and middleware type in the provided fields.
6. Click **Update**.

7. Select the link to the newly created middleware so you can define the parameters for it.
8. Set the Use Advanced Outbound parameter to **True**.
9. Click **Update**.

The CTI middleware is created and configured.

## 5.3 Install and Configure the CT-Connect Client

CT-Connect client allows the Call Center Connector server to communicate with the CT-Connect Server for call control.

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**Note:** If you are using Cisco ICM as your middleware, you do not need to perform this task. There is no "client" with Cisco ICM.

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CT-Connect Client is easy to install by using its accompanying wizard. The field engineer performing the installation should know the name of the CT-Connect server.

Refer to the CT-Connect installation documentation for instructions on installing CT-Connect Client. You must have the same version of CT Connect for the server and the client.

## 5.4 Install Oracle Call Center Connectors

Oracle Call Center Connectors is not part of the standard tech stack and can be installed on a Windows NT server using the Call Center Applications Extension CD or downloaded from the Middleware page.

If the number of VDU boards fits physically into one server node, then it should have already taken place during the Advanced Inbound installation and configuration process. For more information on Oracle Call Center Connectors, refer to the *Oracle Call Center Connectors Implementation Guide*.

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**Note:** Call Center Connectors software must be installed on every machine that houses a VDU board for Predictive dialing.

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Use the steps below to install Oracle Call Center Connectors.

## Steps

1. Insert Oracle Call Center Application 11.5.6 CD into CD-ROM Drive or download the Connectors install from the **Call Center (T) Middleware** page and extract the install.

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**Note:** To download the Call Center Connectors Installer .zip file (cctietsetup.zip), use a web browser to log in to the Oracle Applications Web tier as a user with the Call Center HTML Administrator responsibility

- On the Call Center > Middleware tab, under Call Center Connectors click the hyperlink **Download Installer**.
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**Note:** You must use WinZip to extract/inflate the Connectors install file.

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2. Run the **Setup.exe** file.
3. Click **Oracle Call Center Services**.
4. Click **Next**.  
The Software License Agreement dialog box appears.
5. From the Software License Agreement dialog box, click **Yes** to accept the terms of the license agreement, and then click **Next**.  
The User Information dialog box appears.
6. Type a name and company name in the provided fields, then click **Next**.  
The Choose Destination Location dialog box opens. The Destination Folder area displays the default destination folder for the files. If this location does not exist, the setup program will create it for you.
7. Click **Next** to accept the default destination folder, OR click **Browse** to choose another destination folder or create a new destination folder. When you return to the Choose Destination Location dialog box click **Next**.  
The Setup Type dialog box appears.
8. Click **Custom** and then click **Next**.  
The Select Components dialog box appears.

9. From the Select Components dialog box, first clear all check boxes and then select only **Call Center Connectors**.

10. Click **Next**.

The Select Program Folder window appears.

11. From the Select Program Folder, you can either:

- a. accept the default folder, and click **Next**
- b. choose an existing folder, and click **Next**
- c. create and name a new folder, and click **Next**.

The Start Copying Files window appears

12. Click **Next** to begin installing Call Center Connectors.

The Oracle Call Center Services 11i window opens and the installation progress indicators appear.

When the installation is finished, the Setup Complete window appears.

13. Choose to restart your computer now or later.

14. Click **Finish**.

The installation of Call Center Connectors is complete.

## 5.5 Configure Oracle Call Center Connectors

Use the steps below to configure the Call Center Connector Service (OpenTel Proxy Server) using the Service Configuration program installed with Call Center Connectors.

### Prerequisites

Before you can configure the Call Center Connectors Service, Call Center Connectors must already be installed.

### Steps

1. From the Windows desktop, click **Start > Program > Oracle > Call Center > Service Configuration**.

The Call Center Connectors Service Configuration window appears.

2. From the Call Center Connectors Service Configuration window, click the **Call Center Connectors Server** checkbox.

The Call Center Connectors Server tab page appears.

3. On the Call Center Connectors Server tab, click **New Server** and enter a unique name to identify this instance of Call Center Connectors.
4. Click **OK**.
5. The remaining fields will be automatically populated with defaults.
6. In the Executable field, verify that the path for OpenTelProxyServer.exe is correct.
7. If you are installing a single instance of Call Center Connectors on this machine, use port number **3201**. If you configure two or more instances of Call Center Connectors on the same machine, select an unused port number between 3300 and 5000.
8. Choose an Output Level from 0 to 4 for logging.
  - Oracle recommends that you use Output Level 1 in normal operations for moderate logging without slowing performance.
  - Level 0 returns no logging, but results in the fastest performance.
  - Level 4 returns the most detailed logging, such as for troubleshooting, but results in slower performance.
9. Click **OK**.
10. From the Windows NT taskbar, select **Start > Settings > Control Panel > Services**.

The Services dialog box appears.

11. In the Services window, scroll to **OracleCCCServer <name that you entered in step 3>**. Check that Startup is set to **Automatic**.

If Startup is not set to Automatic, choose **Startup** to open the Service panel. Choose **Automatic**, then choose **OK**. The Service panel closes, and you return to the Services window.
12. Choose **Start** to restart the service, or you can restart the service on the next reboot.

This completes the configuration of Oracle Call Center Connectors.

## 5.6 Install the VDU Software

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**Note:** This is only necessary if predictive dialing will be used.

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To install the VDU boards, refer to the installation instructions from the board manufacturer. You will need the assistance of a phone company engineer or an engineer from Dialogic to aid in providing information.

Servers housing VDU cards must run Windows NT or 2000 for the 11.5.6 release. The extensions on the PBX should be allocated for use by Advanced Outbound, and a simple test using the tools shipped with the VDU hardware can be run.

Use the steps below to install the VDU software on the Call Center Connectors server.

### Prerequisites

Before you can install the VDU software, the VDU board(s) must first be installed.

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**Note:** After installing the VDU card on the Call Center Connector server, you need to reboot the system before you can install and configure the VDU software. This software must be installed on every server that will house VDU cards for Predictive dialing.

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**Note:** You should note the board slot identification switch on the VDU board(s) as they are being installed. Each board dial setting on the same server node must be unique.

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### Steps

1. From the windows desktop, click **Start > Programs > Dialogic System Software > Dialogic Configuration Manager (DCM)**.

The Dialogic Configuration Manager window appears.

2. On the Dialogic Configuration Manager window, click **Configuration Manager**.

The Dialogic Configuration Manager automatically detects the VDU card and generates a list of VDU cards.

3. From the list of VDU cards, select the desired VDU card and click the green (Go) button.

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**Note:** If you highlight a card that is already running, a red (stop sign) is displayed. The green or red status determines whether or not the service is currently running.

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4. On the Dialogic Configuration Manager window, click **Service**, then **Startup Mode**.

The Startup Mode window appears.

5. Select **Automatic**.
6. Click **Close**.

## 5.7 Assign the IECAOUSER User Name to the CRM Resource

For Advanced Outbound to be able to successfully log to Oracle Interaction History predictively dialed calls that do not result in a live connect, a CRM resource must be assigned the IECAOUSER user name. If a CRM resource with this user name does not exist, a resource ID of 0 will be logged and Oracle Interaction History will reject this resource ID, thus reporting information in Oracle Interaction History would not exist.

Use the steps below to assign the IECAOUSER user name to a CRM resource:

### Steps

1. Login to the Self-Service application and select the CRM Resource Manager responsibility.
2. In the Navigator window, on the Functions tab, choose **Resource Manager > Maintain Resources > Resources**.

The Find Resources window appears.

3. Enter any selection criteria. For example, in the Name field, select the name of an employee to whom you want to assign the IECAOUSER user name.
  4. Click **Find**.
- The Research Search Results window appears.
5. Select the resource, then click **Resource Details**.

The Resource window appears, populated with information regarding the selected resource.

6. From the drop-down list in the User Name field, select **IECAOUSER**.
7. From the **File** menu, choose **Save**.

## 5.8 Install ICSM

ICSM and all of its dependencies must be installed on all Interaction Center servers (Central Sever and ALL Dial Server nodes) except the server running Call Center Connectors services (this installation is separate).

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**Note:** ICSM is an enterprise-wide management utility. A system server can host one or more Interaction Center services. Interaction Center server processes can also run on more than one host server. You must identify all servers and the Interaction Center servers they will host.

ICSM can be installed as an Application Web-Tier Install using Rapid Installer 11.5.6 or later or manually by following the instructions on the ICSM setup page.

For multi-homed systems identify all IP addresses.

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For detailed information and steps to install ICSM, refer to the *Oracle Applications Interaction Center Implementation Guide*.

## 5.9 Create the AO Central Server and Configure its Parameters

Use the steps below to create the AO Central Server (OCS) and configure its parameters.

### Prerequisites

ICSM must be installed and started, and you must have already defined a server group before you can create a Central Server or configure its parameters. These tasks should have been performed during the installation and implementation of Oracle ICSM. For more information, refer to the *Oracle Applications Interaction Center Implementation Guide*.

**Steps**

1. Login to Oracle Applications with the **Call Center HTML Administrator** responsibility and select **ICSM**.

The Server Groups window appears. This is the default window.

2. From the Server Groups window, select the server group in which the AO Central Server is defined.

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**Note:** If the server group name is not listed, click **Next**.

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3. In the Server section, click **Create**.

The Server Details window appears.

4. On the Server Details window, enter the server name, server type (use **Advanced Outbound Central Server**), location, description, member server group, using server group, and node assignment in the provided fields.
5. Click **Update**.

**To modify existing parameters:**

6. On the Server Details window, modify the location, description, member server group, or using server group in the provided fields.
7. Click **Update**.

**To define Central Server parameters:**

8. On the Server Details window, click **Parameters** (top center of the window).

The Parameters window appears.

9. Define the following parameters, then click **Update**:

**Server Parameters****OA0\_MAX\_DB\_RETRIES**

The number of times the OCS server will attempt to connect to the database prior to stopping the server.

Default Value: 5

If a value is not given, then the server will default to 0.

### OA0\_MAX\_THREAD\_COUNT

The maximum number of threads the server will maintain in the thread pool. The number of threads can exceed this limit to 120% of this number, but once the threads have been used they are then destroyed.

Default Value: 100

If a value is not given then the server will default to 100.

### OA0\_LOGFILE\_SIZE

The maximum size of the file used for logging purposes if the logger is started with a flag that indicates logs should be directed toward a file.

Default Value: 1000000

If a value is not given then the server will default to 1000000.

### OA0\_LOG\_LEVEL

The threshold value the logger will use to determine if a log request is forwarded to the log. Values for this parameter from least to most restrictive are:

- all – this will ensure that all requests to log (except "debug") are forwarded.
- debug – this will ensure that all requests to log are forwarded.
- info – this will forward all log requests except debug level logs.
- warn – this will forward all log requests except info and debug level logs.
- error – this will only forward error and fatal level logs.
- fatal – this will only forward fatal level logs.
- none – nothing is logged.

Default Value: info.

If a value is not given then the server will default to info.

### OA0\_SERVER\_VERSION

Gives the current version of the OCS. This is given in the form of <major release>.<version>. At this time this is the level of specification.

Default value: 11.5

If a value is not given then the server will disregard.

#### OA\_CONFIG\_REFRESH\_RATE

The interval of time between OCS returning to the IEO schema to ensure that it is using the latest values for the server and plugin parameters. This value is given in minutes.

Default value: 15

If a value is not given then the server will default to 15.

### **Retrieve Parameters**

#### RETRIEVE\_EXECUTION\_INTERVAL

The interval of time between the Retrieve Plugin attempting to prefetch entries into the cache (to fetch a certain number of records into the cache before these records are requested by the dial server).

Default Value: 5

If the parameter does not exist then the server will default to 5. If the value is set to 0 then the plugin will shutdown until the value is reset to a value above 0.

#### RETRIEVE\_LOW\_THRESH\_PCT

The Retrieve Plugin uses an algorithm to determine how many entries are necessary to prefetch in order to keep up with the demand placed on it by its clients. The algorithm uses this value as a threshold to determine if the state of the prefetch cache is extremely low and the number of entries to prefetch should be increased.

Default Value: 20

If a value is not given or the parameter does not exist then the server will default to 20.

#### RETRIEVE\_HIGH\_THRESH\_PCT

The Retrieve Plugin uses an algorithm to determine how many entries are necessary to prefetch in order to keep up with the demand placed on it by its clients. The algorithm uses this value as a threshold to determine if the state of the prefetch cache is extremely high and the number of entries to prefetch should be decreased.

Default Value: 80

If a value is not given or the parameter does not exist then the server will default to 80.

#### RETRIEVE\_LIST\_INCREASE\_PCT

The Retrieve Plugin uses an algorithm to determine how many entries are necessary to prefetch in order to keep up with the demand placed on it by its clients. The algorithm used this value as the percentage to increase the number of prefetch entries.

Default Value: 25

If a value is not given or the parameter does not exist then the server will default to 25.

#### RETRIEVE\_INIT\_CACHE\_PCT

If the Retrieve Plugin determines that no entries have been previously prefetched for this list, it uses this value to determine the percentage of the list that should be used and the initial value of entries that need to be prefetched.

Default Value: 25

If a value is not given or the parameter does not exist then the server will default to 25.

### **Callback Parameters**

#### CALLBACK\_EXECUTION\_INTERVAL

The interval of time between the Callback Plugin attempting to prefetch callback entries into the cache. This parameter can be used to tune OCS. In most situations the callback execution interval will be smaller than the retrieve callback execution interval. This value is given in minutes.

Default Value: 1

If the parameter does not exist then the server will default to 1. If the value is set to 0 then the plugin will shutdown until the value is reset to a value above 0.

### **Callable Parameters**

#### CALLABLE\_EXECUTION\_INTERVAL

The interval of time between the Callable Plugin attempting to update the interval of time an entry is callable. This effects the determination of callable zones for a specific list using the callable calendars. Because the

calling calendars are specified in 30 minute intervals, the value for this parameter can be up to 30. However, setting the value this high could effect the interval of time prior to OCS adjusting to changes in the calling calendars. This parameter can be used to tune OCS. This value is given in minutes.

Default Value: 10

If the parameter does not exist then the server will default to 10. If the value is set to 0 then the plugin will shutdown until the value is reset to a value above 0.

### **Recover Parameters**

#### **RECOVER\_EXECUTION\_INTERVAL**

The interval of time between the Recover Plugin attempting to recover entries that have been determined to be lost in the system. This parameter can be used to tune OCS. This value is given in minutes.

Default Value: 60

If the parameter does not exist then the server will default to 60. If the value is set to 0 then the plugin will shutdown until the value is reset to a value above 0.

#### **RECOVER\_LOST\_INTERVAL**

The interval of time the recover plugin uses to determine if an entry should be considered to be lost in the system. When OCS prefetches an entry, it sets the time that the entry was checked out and a flag indicating the entry was checked out. When OCS recycles an entry, it resets the flag to indicate that the entry is no longer checked out. If during the Recover Plugin's execution cycle, it determines that an entry has been checked out for longer than the value of this parameter, it marks the entry as lost and recycles it. This value is given in minutes.

Default Value: 1440

If the value is not set or the parameter does not exist, then the server will default to 1440.

### **Report Parameters**

#### **REPORT\_EXECUTION\_INTERVAL**

The interval of time between the Report Plugin attempting to execute the reporting methods. This parameter can be used to tune OCS. This value is given in minutes.

Default Value: 15

If the parameter does not exist then the server will default to 15. If the value is set to 0 then the plugin will shutdown until the value is reset to a value above 0.

### **Refresh Parameters**

#### **REFRESH\_EXECUTION\_INTERVAL**

The interval of time between the Refresh Plugin attempting to recover entries that have been determined to be stale in the cache. This parameter can be used to tune OCS. This value is given in minutes.

Default Value: 30

If the parameter does not exist then the server will default to 30. If the value is set to 0 then the plugin will shutdown until the value is reset to a value above 0.

#### **REFRESH\_STALE\_INTERVAL**

The interval of time the refresh plugin uses to determine if an entry should be considered to be stale in the system. When OCS prefetches an entry, it sets the time that the entry was checked out and a flag indicating the entry was checked out. When the list management client retrieves the entry, it effectively removes it from the cache. When OCS recycles an entry, it resets the flag to indicate that the entry is no longer checked out. If during the Refresh Plugin's execution cycle, it determines that an entry has resided in the cache for longer than the value of this parameter, it marks the entry as stale and recycles it. This value is given in minutes.

Default Value: 60

If the value is not set or the parameter does not exist, then the server will default to 60.

### **Validation Parameters**

#### **VALIDATION\_EXECUTION\_INTERVAL**

The interval of time between the Validation Plugin attempting to run the validation routines on lists. This parameter can be used to tune OCS. This value is given in minutes.

Default Value: 15

If the parameter does not exist then the server will default to 15. If the value is set to 0 then the plugin will shutdown until the value is reset to a value above 0.

### **Recycle Parameters**

#### **RECYCLE\_EXECUTION\_INTERVAL**

The interval of time between the Recycle Plugin attempting to run the recycling routines on entries that have been marked in need of recycling. This parameter can be used to tune OCS. This value is given in minutes.

Default Value: 2

If the parameter does not exist then the server will default to 1. If the value is set to 0 then the plugin will shutdown until the value is reset to a value above 0.

### **Status Parameters**

#### **STATUS\_EXECUTION\_INTERVAL**

The interval of time between the Status Plugin attempting to run the routines that maintain the correct statuses for lists. This value will govern how quickly OCS adapts to list and schedule status changes. This parameter can be used to tune OCS. This value is given in minutes.

Default Value: 5

If the parameter does not exist, then the server will default to 5. If the value is set to 0, then the plugin will shutdown until the value is reset to a value above 0.

### **To define Central Server advanced parameters:**

10. On the Server Details window, click **Advanced** (top right of the window).

The Advanced Parameters window appears.

11. On the Advanced Parameters window,

12. On the Advanced Parameters window, enter information for java options, and server arguments in the provided fields.

#### **Java Options**

-ms and -mx VM parameters should be set depending on the number of agents you expect to service

#### **Server Arguments**

-logfile <logfile location>

-loglevel <error | warn | info | debug | all>

-useaolj <y | n>

13. Click **Update**.

## **5.10 Assign the AO Central Server to a Server Node**

This process is performed in Oracle ICSM. For more information on assigning servers to server nodes, refer to the *Oracle Applications Interaction Center Implementation Guide*.

## **5.11 Create the AO Dial Server and Configure its Parameters**

Use the steps below to create the AO Dial Server (AODS) and configure its parameters.

#### **Prerequisites**

ICSM must be installed and started, and you must have already defined a server group before you can create a Dial Server or configure its parameters. These tasks should have been performed during the installation and implementation of Oracle ICSM. For more information, refer to the *Oracle Applications Interaction Center Implementation Guide*.

#### **Steps**

1. Login to Oracle Applications with the **Call Center HTML Administrator** responsibility and select **ICSM**, then **Server Groups**.

The Server Groups window appears.

2. From the Server Groups window, select the server group in which the AO Dial Server is defined.

3. In the Server section, click **Create**.

The Server Details window appears.

4. On the Server Details window, enter the server name, server type (use **Advanced Outbound Dial Server**), location, description, member server group, using server group, and node assignment in the provided fields.
5. Click **Save**.

#### **To modify existing parameters:**

6. On the Server Details window, modify the location, description, member server group, or using server group in the provided fields.
7. Click **Update**.

#### **To define Dial Server parameters:**

8. On the Server Details window, click **Parameters** (top center of the window).  
The Parameters window appears.
9. Define the following parameters, then click **Update**:

##### **Server Parameters**

###### `OA0_MAX_DB_RETRIES`

Number of times AODS server will attempt to connect to the database. It then increases the wait time and tries again.

Default Value: 5

If a value is not given, then the server will default to 5.

###### `OA0_MAX_THREAD_COUNT`

Maximum number of threads server will maintain in the thread pool.

Default Value: 100

If a value is not given then the server will default to 100

###### `OA0_LOGFILE_SIZE`

Maximum size of the file used for logging purposes if the logger is started with a flag that indicates logs should be directed toward a file.

Default Value: 1000000

If a value is not given then the server will default to 1000000

#### OA0\_LOG\_LEVEL

Threshold value logger will use to determine if a log request is forwarded to the log. Values for this parameter are:

- all – this will ensure that all requests to log (except "debug") are forwarded.
- debug – this will ensure that all requests to log are forwarded.
- info – this will forward all log requests except debug level logs.
- warn – this will forward all log requests except info and debug level logs.
- error – this will only forward error and fatal level logs.
- fatal – this will only forward fatal level logs.
- none – nothing is logged.

If a value is not given then the server will default to info.

#### OA0\_SERVER\_VERSION

Gives the current version of the AODS. This is given in the form of <major release>.<version>. At this time this is the level of specification.

Default value: 11.5

If a value is not given then the server will disregard.

#### OA0\_CONFIG\_REFRESH\_RATE

This is time in minutes that the server will go back to the database to see if any of the following configuration has been changed:

- If the server configuration has itself been changed (mainly loglevel)
- If a campaigns configuration has changed (Predictive to a Non-Predictive case or vice-versa).
- If a new campaign schedule has now become active (and has at least one list in executing state OR if a list of this active campaign schedule is now executing)

Default value: 15

If a value is not given then the server will default to 15.

**To define Dial Server advanced parameters:**

10. On the Server Details window, click **Advanced** (top right of the window).  
The Advanced Parameters window appears.
11. On the Advanced Parameters window,
12. On the Advanced Parameters window, enter information for java options, and server arguments in the provided fields.
13. Click **Update**.

## 5.12 Assign the AO Dial Server to a Server Node

This process is performed in Oracle ICSM. For more information on assigning servers to server nodes, refer to the *Oracle Applications Interaction Center Implementation Guide*.

## 5.13 Configure the Middleware for the AO Dial Server

Use the steps below to configure the middleware for the AO Dial Server.

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**Note:** Depending on the agent load, there may be multiple instances of a Dial Server created within a server group.

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**Note:** This is an optional step, depending on the Interaction Center environment. If there is only one Call Center Connector (CCC) server configured in the environment, then most likely, this step may be skipped since the Middleware would have been defined within the Advanced Inbound setup. However, if more than one CCC server is defined due to the need to have a 'bank' of servers to house the VDU cards, then at least one Middleware must be defined for each CCC server.

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### Prerequisites

Before you can configure the Dial Server middleware, the server group for the Dial Server must already be created and the Dial Server must already be created.

## Steps

1. Login to Oracle Applications with the **Call Center HTML Administrator** responsibility and select **Call Center**, then **Middleware**.

The Middleware window appears.

2. From the Middleware window, select the server group in which the AO Dial Server is defined.

3. Click **Create**.

The Middleware Details window appears.

4. On the Middleware Details window, enter the middleware name, IP address, port, and middleware type in the provided fields.

5. Click **Update**.

The Middleware Details screen expands to display setup information in the following sections Teleset Details, Route Point Details, and Middleware Parameters. Advanced Outbound setup only requires the definition of the Middleware Parameters listed in step 6 (the other parameters pertain to Oracle Advanced Inbound). For a list of these parameters, refer to the *Oracle Advanced Inbound Implementation Guide*.

6. On the Middleware Parameters window, enter the following parameters:
  - **PBX name** - links logical identifier defined in CT Connect configuration to represent the CTI link between CT Connect and the switch.
  - **PBX type** - PBX type. Choose:
    - Avaya Definity
    - Alcatel 4400
    - Ericsson MD110
    - Nortel Meridian or Symposium Call Center Server
    - Rockwell Spectrum
    - Siemens HICOM
  - **CTI enabler service IP address** - IP address of the CT Connect server
  - **Middleware server info 1** - Port number of the Cisco ICM CTI server (Port A).

- **Outgoing prefix** - Numeric prefix dialed to place an outside call. Check against the configuration of the PBX.
- **International dialing prefix** - Numeric prefix dialed for placing international calls.
- **Site area code** - The area code for the site where the PBX is located.
- **Site country code** - The country code for the site where the PBX is located.
- **Site internal number length** - Sets the allowable number of digits for the internal number.
- **Site local number maximum length** - Sets the maximum allowable number of digits for the local number.
- **Domestic dialing prefix** - Numeric prefix dialed when placing domestic calls.
- **Use advanced outbound** - Indicates where the Call Center Connectors Server is being used for AO. This must be set whenever VDU boards are being housed on the node. (type **Yes**).
- **Predictive transfer flag** - This indicates how the predictive call will be transferred. This should be set to "Event", "Single Step" or "Time".

---

---

**Note:** Although "Time" is listed, it is currently not being implemented.

---

---

- **Predictive Transfer wait time** - If the Predictive Transfer Flag is set to "Time", then this field is used to specify the time before transferring.

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---

**Note:** "Time", is currently not being implemented.

---

---

- **Predictive answer flag** - Specifies how the predictive call will be answered. Should be set to either "Event" or "Time".

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---

**Note:** Although "Time" is listed, it is currently not being implemented.

---

---

- **Predictive answer wait time in the provided fields** - If the Predictive Answer Flag is set to Time, then this field is used to specify the time before answering.

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---

**Note:** "Time", is currently not being implemented.

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7. Click **Update**.

## 5.14 Configure the Logical VDUs

What you are doing in the following steps is configuring the VDU to be used by Advanced Outbound. During this configuration process, you will need to provide information in three main areas:

- VDU information
- Board information
- Port information

Use the steps below to create voice detection units in Oracle Advanced Outbound.

### Prerequisite:

In order to create voice detection units, you must have Advanced Outbound administrator level rights. The VDU board must already be installed on the machine. You must contact your PBX administrator for the VDU board port extension numbers.

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**Note:** The VDU values that appear in the drop-down fields are pre-seeded in Advanced Outbound. The server group information is entered by using Oracle Interaction Center Server Manager (ICSM). For more information on ICSM, please refer to the Oracle ICSM documentation.

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### Steps:

1. Log in to Oracle Applications with the **AO Administrator** responsibility.  
The Advanced Outbound Administration UI appears, displaying the Campaign Schedules tabpage.
2. On the Campaign Schedules tabpage, click the **Telephony** tab.

The Telephony tabpage appears, displaying a summary view table of all existing VDUs. The Voice Detection Unit subtab window is the default view for the Telephony tabpage.

3. On the Voice Detection Unit window, click **Create VDU**.

The Voice Detection Unit - Create window appears.

4. In the VDU Name field on the Voice Detection Unit -- Create window, type a name for the VDU.

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---

**Note:** VDU names have a 64 character limit and only the following characters are supported:

- A-Z
  - 0-9
  - underscore, space, and hyphen
- 
- 

5. From the drop-down list in the VDU Board Name field, select the type of VDU board installed in your call center server group.

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**Note:** The VDU board name is the manufacturer's name for the particular VDU board. Only VDU board names that are supported by Oracle Advanced Outbound will appear in the drop down list.

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The Port Type and Number of Ports fields will automatically update to reflect the correct information for the selected VDU Card.

6. From the drop-down list in the Server Group field, select the name of the server group where your VDU card is installed.

The Middleware and Dial Server fields automatically update to reflect the correct information for the selected server group.

7. Click **Next**.

The Voice Detection Unit -- Board Information window appears, displaying the VDU name and VDU board name you supplied on the previous window.

8. From the drop-down list in the ROTARY SETTING field, select the rotary setting you want your VDU board to use.

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---

**Note:** Each Dialogic VDU board has a rotary switch that allows you to determine that board order when you have more than one board in one machine. Dialogic supports up to 4 boards (rotary switch numbers 0-3) in one machine. Oracle Advanced Outbound requires the rotary switch for the first board be set to 0, the rotary switch for the second board must be set to 1, etc. The rotary switch can be set either on the actual hardware board, or in this utility, which sets the rotary switch in the database.

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9. Click **Next**.

The Voice Detection Unit Port Information window appears, displaying a summary view table for all the existing ports on the selected VDU board.

10. From the Voice Detection Unit Port Information window, click **Auto Parameters**.

The Voice Detection Unit -- Auto Generate Parameters window appears.

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---

**Note:** Steps 11-14 must be performed in the top set of fields on the Voice Detection Unit -- Auto Generate Parameters summary view table. Leaving the top set of fields blank will produce an error.

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11. From the drop-down list in the Starting Port column of the summary view table, select the port number from which you want the auto-parameters utility to begin assigning extension numbers.

12. From the drop-down list in the Ending Port column of the summary view table, select the port number at which you want the auto-parameters utility to stop assigning extension numbers.

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---

**Note:** Your PBX Administrator assigns the port extensions for each VDU board. You must contact the PBX Administrator to obtain these extensions. The port extensions will typically be in a set sequential order (growing by one or more in value per port extension).

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13. From the list in the Starting Value column of the summary view table, type the number your PBX Administrator assigned to the first port on your VDU board.

14. From the list in the Increase By column of the summary view table, type the value by which each port extension number increases.

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**Note:** This number is typically one or two, but can be any sequence your PBX Administrator assigns.

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15. Click **Apply**.

You return to the Voice Detection Unit Port Information window and the summary view table updates to display the port extensions you determined.

16. From the drop-down list in the status column for each port you want to be active, select **Active**.

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**Note:** **Active** should be the default setting for the port status. If you want to change the port status for a particular port to inactive, select **Inactive** from the drop-down list for that port in the status column.

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17. Click **Create VDU**.

The Voice Detection Unit window appears, displaying a confirmation message that states your new VDU has been created and saved.

## 5.15 Create OMO Outbound Campaign Schedule, Target Group, and List

Before Advanced Outbound can proceed with outbound calling:

- A campaign schedule tagged as "TeleMarketing" must be predefined within Marketing Online. Use the Activity List checkbox to mark the schedule as "TeleMarketing" and the Campaign Schedule must be "Active".
- A Target Group for the Campaign Schedule must be created.
- The 2 views that identify the source type fields needed by Advanced Outbound must be selected. You must select these views in the Oracle Marketing Online Admin GUI. The navigation path is: Administration -> Marketing -> Audience -> Data Sources. On the Data Sources window, select the two views listed below and click **Update**:

- Organization\_List
- Person\_List

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**Caution:** While Oracle Marketing Online allows you to modify the source type fields, you **MUST NOT** remove or modify the following fields:

**Per Customer** - AO requires these fields for each customer. They are either used in the screen pop, or to check for DNC, release control, or the stop list.

- PERSON\_FIRST\_NAME
- PERSON\_LAST\_NAME
- PERSON\_NAME\_SUFFIX
- PERSON\_TITLE
- PIN\_CODE
- PARTY\_NAME
- PARTY\_ID
- SOURCE\_CODE
- SOURCE\_CODE\_FOR\_ID
- PARTY\_SITE\_ID
- POSTAL\_CODE

**Per Phone Number** - AO requires these fields for each phone number.

- CONTACT\_POINT\_ID
  - TIME\_ZONE
  - PHONE\_COUNTRY\_CODE
  - PHONE\_AREA\_CODE
  - PHONE\_NUMBER
  - RAW\_PHONE\_NUMBER
  - REASON\_CODE
- 
-

- A calling list must be generated and associated to the campaign (via the campaign schedule). These lists contain callable user records.

For more information on marketing campaign schedule setup, target group creation, and list generation, refer to the *Oracle Marketing Online Implementation Guide* and the *Oracle Marketing Online Concepts and Procedures Guide*.

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**Note:** The target group associated with the Marketing Campaign Schedule is the calling population that will be used for calling in the interaction center. Advanced Outbound uses the same OMO schema to pull calling records.

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## 5.16 Approve Campaign Schedule

Advanced Outbound only deals with Campaign Schedules that are in "active" mode. The Campaign Schedule must be approved by the designated OMO Admin before it switches to "active" mode. The approver is identified within Oracle Marketing Online through the market medium. The approver must access his personal homepage (PHP) to approve Campaign Schedules (an example of a PHP URL would look like this - webserver with port#/OA\_HTML/US/icxindex.htm).

For more information on approving campaign schedules, refer to the *Oracle Marketing Online Implementation Guide* and the *Oracle Marketing Online Concepts and Procedures Guide*.

## 5.17 Define Time Zone and Area Code Mapping Data

All calling lists are validated before records can be dialed from the list. As part of the list validation process, the records within the calling list must be mapped to a time zone, otherwise the records will be flagged as Do Not Use and will not be dialed. There are three different types of time zone mappings:

- Mapping a territory code to a time zone
- Mapping a territory code and area code to a time zone
- Mapping a territory code, area code and postal code to a time zone

As a rule, the use of territory code to time zone mapping requires the least amount of effort to create. However, certain countries are divided among different time zones, and therefore require area code, along w/ territory code to map to a time zone. If area code is insufficient, then postal code may also be used, however the

postal code only needs to be defined when absolutely necessary in order to correctly determine a time zone.

Click the following links for detailed steps:

[Create Area Code Mappings](#)

[Create Time Zone Mappings](#)

### 5.17.1 Create Area Code Mappings

An area code is defined as a 3-digit number that identifies each telephone service area in a country (such as the U.S. or Canada).

Area Code Mapping provides a way for Advanced Outbound to find the country to associate a phone number with.

Use the steps below to create an area code mapping in Advanced Outbound.

#### **Prerequisites:**

In order to create area code mappings, you must have Advanced Outbound administrator level rights.

#### **Steps:**

1. Launch the Oracle HTML application (browse to the Oracle HTML application URL).
2. Log in as the new user.
3. At the first page (User Setup page), for the default Responsibility choose **Advanced Outbound Administrator**.
4. Click **Update**.
5. Log out by clicking the logout icon.
6. Log in again as the same user.

The Advanced Outbound Administration UI appears, displaying the Campaign Schedules tabpage.

7. On the Campaign Schedules tab, click the **Administration** tab.

The Administration tab appears, displaying the Server Properties subtab window. This is the default window for the Administration tab.

8. From the Server Properties window, click the **Time Zone Mappings** subtab.

The Area Code Mapping window appears, displaying a summary view table of all existing area code mappings.

9. On the Area Code Mapping window, click **Create Area Code Mapping**.

The Create Area Code Mapping window appears.

10. In the Country Name field, click the flashlight icon.

The Select a Country Name window appears.

11. From the Select a Country Name window, select a country name from the list.

You return to the Area Code Mapping window. The selected Country Name appears in the Country Name field, and the Country Code field automatically populates with the pre-seeded country code for the selected country name.

12. In the Area Code field, enter an area code for the selected country.

13. Click **Create**.

The Area Code Mapping window updates to reflect the new area code mapping.

## 5.17.2 Create Time Zone Mappings

Advanced Outbound contains time zone mapping tables that must be defined.

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**Note:** It is the responsibility of the implementation team to populate the appropriate data into these tables. While Advanced Outbound provides the structure and mechanism to utilize this data, the data itself can be purchased through third party vendors.

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Many countries only occupy a single time zone, but others are spread across multiple time zones. If your interaction center plans to make calls throughout countries (for example: United States or Canada) where many states and provinces fall in different time zones, you may need to provide the state/region postal codes and area codes to determine that Advanced Outbound is using the correct time zone for the customer. There are standard database load utilities readily available within the database that can be used to upload purchased data into the Advanced Outbound Schema.

In order to ensure that customers are called at the appropriate times, Advanced Outbound must know where the person resides in relation to time zones. This way

Advanced Outbound can follow the appropriate telemarketing laws that govern calling in their particular country, state, country or city.

The time zone mapping form is used as an easy entry point to provide Advanced Outbound with a method to call customers or contacts.

At a minimum, the country code and time zone must be entered for each country that an interaction center will contact. It is mandatory that all countries map their time zone with their country name.

For single time zone countries, no further information is needed.

For countries with more than one time zone, it is recommended that you map the appropriate time zone, country code, and optional area code, postal code, state/region information to assist Advanced Outbound during list validation time. By utilizing the address specific information, Advanced Outbound can match a customer record with the appropriate time zone and country if their customer record is incomplete.

This functionality is especially important in countries where there are multiple time zones. For example, the United States has eight time zones spanning from Saipan, Northern Mariana Islands, U.S.A. (Standard time zone: UTC/GMT +10 hours where daylight savings time is currently not observed) to Honolulu, Hawaii, U.S.A. (Standard time zone: UTC/GMT -10 hours where daylight savings time is currently not observed). In addition, there are many states which have multiple time zones and may, or may not, participate in daylight savings time.

For example: the state of Indiana has up to three different time zones depending on the location in the state. In order to ensure we call the customer at the correct time, we need to know exactly where the customer is and follow the laws for their state. In this case, Advanced Outbound may need to go down to the postal code to ensure that the correct time zone is being used for the customer record.

Use the steps below to create a time zone mapping in Advanced Outbound.

### **Prerequisites:**

In order to create time zone mappings, you must have Advanced Outbound administrator level rights.

### **Steps:**

1. On the Administrator UI login screen, type your admin level User ID and Password in the provided fields and click **Go**.

The Advanced Outbound Administration UI appears, displaying the Campaign Schedules tabpage.

2. On the Campaign Schedules tab, click the **Administration** tab.

The Administration tab appears, displaying the Server Properties subtab window. This is the default window for the Administration tab.

3. From the Server Properties window, click the **Time Zone Mappings** subtab.

The Area Code Mapping Detail window appears, displaying a summary view table of all existing area code mappings.

4. From the side navigation bar, click **Time Zone Mapping**.

The Time Zone Mapping window appears, displaying a summary view table of all existing time zone mappings.

5. On the Time Zone Mapping window, click **Create Time Zone Mapping**.

The Create Time Zone Mapping window appears.

6. In the Country Name field, click the flashlight icon.

The Select a Country Name window appears.

From the list of country names, select the country name to which you want to map a time zone.

7. From the drop-down list in the Area Code field, select an area code for the country name you selected in the previous step.

8. In the Postal Code field, type a postal code for the area code you selected in the previous step.

9. In the State/Region Field, type the appropriate state/region for the area code.

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**Note:** The format for the state/region should be the entire state/region name with initial capitalization (for example, Nevada).

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10. In the Time Zone field, click the flashlight icon.

The Select a Time Zone window appears, displaying a summary view table of all existing time zones.

11. From the Time Zone column of the summary view table, select the time zone to which you want to map the country code you selected.

**12. Click Create.**

The mapping between the selected country code and time zone is created.

## 5.18 Define Campaign Schedule Parameters

The Campaign Schedule tabpage displays a list of campaign schedules that have been targeted for executed in the interaction center. The column labeled Interaction Center Ready will indicate whether all the necessary parameters have been defined/setup for the campaign schedule in order to begin campaign schedule execution. This window allows you to configure the call center specific parameters for the selected campaign schedule.

Use the steps below to configure campaign schedules for interaction center execution.

**Prerequisite:**

In order to campaign schedules for interaction center execution, you must have Advanced Outbound administrator level rights.

It is assumed that the user identified in Marketing Online's Market Medium setup has logged in to his Personal Homepage and has 'Approved' the campaign for execution.

**Steps:**

1. On the Administrator UI login screen, type your admin level User ID and Password in the provided fields and click **Go**.

The Advanced Outbound Administration UI appears, displaying the Campaign Schedules tabpage. The Campaign Schedules tabpage is the default window for the Oracle Advanced Outbound HTML Administration console. When it appears, it displays a summary view table of campaign schedules.

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**Note:** If you do not see an campaign schedule displayed, check Oracle Marketing Online to ensure the campaign schedule is configured properly.

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2. From the Name column of the summary view table on the Campaign Schedules tabpage, click the name of the campaign schedule you want to configure for interaction center execution.

The Call Center Campaign Schedule Details window appears, displaying a Call Center Parameters area and a Predictive Telephony Parameters area.

3. From the drop-down list in the Calendar field, select the user defined calendar you want to associate with the selected campaign schedule.

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**Note:** If predictive dialing will not be used, click **Update** after selecting the user defined calendar.

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4. Click the CTI Disabled checkbox, if your Campaign Schedule is not CTI enabled.
5. Click the On Hold checkbox, if you wish to place your Campaign Schedule on hold.

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---

**Note:** Only Campaign Schedules with a status of **Active** can be placed on hold.

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6. In the fields listed under the Predictive Telephony Parameters area, supply the following information:

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**Note:** You only need to enter information in the Predictive Telephony Parameters fields if the campaign schedule will use predictive dialing.

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- a. In the Predictive Dialing Timeout field, type the number of seconds you wish to use.

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**Note:** Valid values are between 15 and 45 seconds.

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- b. From the drop-down list in the Ring-No-Answer field, select the number of rings you want to allow before Advanced Outbound registers the call attempt as a RNA (Ring No Answer).
- c. From the drop-down list in the Targeted Abandonment Rate field, select the maximum acceptable percentage for abandoned calls.

- d. From the drop-down lists in the Special Intercept Tones summary view table, select whether to recycle or have the agent manually handle the following types of special intercept tones: Reorder Handling, Intercept Handling, Vacant Handling, and Network Busy Handling.
- e. From the drop-down list in the Answering Machine Detection field, select the method by which the system detects answering machines, or select no answering machine detection.

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**Note:** Selecting **No answer machine detection** will cause Advanced Outbound to forward answering machine calls to agents as live connections.

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- f. From the drop-down list in the Answering Machine Handling field, select how you want the call attempt handled if an answering machine is detected.
- g. If you selected **Message** in the previous step, select the phone type and the message you want to play from the drop-down fields on the summary view table under the Answering Machine Handling field. Otherwise go to step h.
- h. From the drop-down list in the Front Hold Message field, select whether or not you want to enable or disable Front Hold Messages.

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**Note:** A front hold message is a message that is played when an agent is not available to take a call. Enabling front hold messaging will place the call on a front hold queue if no agents are available to take the call.

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- i. If you selected **Enable** in the previous step, select the phone type and message you want to play from the drop-down fields on the summary view table under the Front Hold Message field. Otherwise, go to step 7.
7. Click **Update**.

You return to the Call Center Campaign Schedule Details window and a confirmation note is displayed, stating that the configuration was successful.

## 5.19 Define Calling Calendars

A calling calendar defines a set of callable times. Calendars can be associated to either regions (countries) or marketing objects (campaign schedules and lists). Advanced Outbound utilizes two types of calendars:

- Country Calendar

A country calendar is mandatory and must be defined for each unique country code identified within a campaign schedule target group (calling list). The country calendar is applied at an individual record basis, i.e. based on the country code defined for the calling record.

- User Defined Calendar

The user defined calling calendar may be applied at both the campaign schedule and/or list level. The user defined calling calendar may extend or restrict the calling times set at the country calling calendar level.

### **Calendar Example:**

Advanced Outbound ships with a default U.S. calendar. It contains the following baseline callable ranges:

Sunday 10AM-8PM

Monday 9AM-9PM

Tuesday 9AM-9PM

Wednesday 9AM-9PM

Thursday 9AM-9PM

Friday 9AM-9PM

Saturday 9AM-8PM

In addition, it contains restricted calling hours for the standard U.S holidays. Note that the callable times are always specified in terms of the local time zone; no time zone specification is necessary. If the call center administrator wishes to prevent calling on a specific list from 6PM to 8PM on a specific date (for example, Monday, June 4, 2001), they can create an User Defined calendar with the following exception information:

06-04-2001 6PM-8PM: no calling

and apply it to the list.

Click the following links for detailed steps:

[Create Country Calendars](#)

[Create User Defined Calendars](#)

## 5.19.1 Create Country Calendars

Country calendars consist of a baseline callable time range for all seven days of the week. Country calendars are expected to be created based on country-specific laws and are required for Advanced Outbound. Every list entry has one to many contact points. Every contact point (telephone number) must have an associated country code and time zone. Every country code must have an associated calendar; thus, country calendars are applied at the individual record level. This association creates the base set of callable times for every list entry. Advanced Outbound ships with country calendars for many countries; however, additional country calendars can be created and added to the base product as necessary to meet your business needs.

Unlike user defined calendars, you cannot delete or remove country calendars. You can only create and modify country calendars.

Use the steps below to create country calendars for Oracle Advanced Outbound.

### Prerequisite:

In order to create country calendars, you must have Advanced Outbound administrator level rights.

### Steps:

1. On the Administrator UI login screen, type your admin level User ID and Password in the provided fields and click **Go**.

The Advanced Outbound Administration UI appears, displaying the Campaign Schedules tabpage.

2. On the Campaign Schedules tabpage, click the **Calling Calendars** tab.

The calling calendars tabpage appears, displaying a list of all existing country calendars. The Country Calendars window is the default view for the calling calendars tabpage.

3. On the Country Calendars window, click **Create Calendar**.

The Create Country Calendar window appears.

4. In the Calendar Name field on the Create Country Calendar window, type a name for the new country calendar.

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---

**Note:** Calendar names have a 64 character limit and only the following characters are supported:

- A-Z
  - 0-9
  - underscore, space, and hyphen
- 
- 

5. From the drop-down list in the Country Name field, select the country you want to associate with the new country calendar.
6. You can create a country calendar by two different methods: you can copy and existing country calendar, or you can create a completely new country calendar. Click the appropriate radio button to select the method by which you will create the country calendar.
  - a. To create a country calendar by using an existing country calendar as a model, click the **Copy Country Calendar** radio button and select the country you want to use from the drop-down list in the field next to the radio button.
  - b. To create a completely new country calendar, click the **Create New Calendar** radio button.
7. Click **Create**.

The Country Calendar Details window appears.
8. From the calendar, click the calendar region corresponding to the time you want the calendar to begin calling on the day you want to start calling (example - Monday at 9:00).

The Calendar Region Details window appears.

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**Note:** To open to the Calendar Region Details window, you can click anywhere in the calendar; however, by clicking the day and time you want to begin calling, you automatically populate the week day and start time fields in the Calendar Region Details window. Also, by clicking the hyperlinked name of day, you can set the whole day for a single value, then copy this to any other day of the week.

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9. From the drop-down list in the Region Type field, select **Callable** if you want to add callable hours, select **Not callable** if you want to add non-callable hours, or click **Not specified** if you want to add regions that are not designated as callable or noncallable.
10. In the Start Time Hour and Minute fields, if the start time has not automatically defaulted to the time you want the country calendar to begin taking effect, click the drop-down arrows in each field and select the hour and minute from the respective lists.

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**Note:** All times in the Hour field are displayed in 24 hour format (0:00 - 24:00). The Minute field allows you to select between **00** (on the hour) and **30** (on the half-hour) time increments.

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11. In the End Time Hour and Minute fields, click the drop-down arrows in each field and select the hour and minute from the respective lists. The end time is the time at which your country calendar will terminate calling.
12. In the Copy To area, select the days of the week to which you wish to copy this calling schedule (if any).

---

---

**Note:** Copying the calling schedule in this way is not required; however, if your calling schedule will not vary greatly between days of the week, this method provides a quick means to populate a baseline calling calendar. You can always go back to the individual days and modify the specific calling times.

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13. Click **Apply**.

The country calendar is created and you return to the Country Calendar Details window.

## 5.19.2 Create User Defined Calendars

User Defined calendars are optional calendars which can be associated with either campaign schedules or lists. These calendars are used to override information in the country calendar; however, user defined calendars don't automatically override country calendars. To begin overriding a country calendar, you must select **Yes** from the drop down list in the Override Country Calendar field on the User Defined Calendar Details window for the selected user defined calendar. These calendars allow you to specify calling times outside of the calling time parameters contained in the standard country calendar you are using.

For example, the default calling time in the country calendar you are using is 8AM to 9PM; however, you are only calling businesses and you know that nobody will be present after 6PM. You can create a User Defined calendar that adjusts the call time accordingly.

Use the steps below to create user defined calendars for Oracle Advanced Outbound.

### **Prerequisite:**

In order to create user defined calendars, you must have Advanced Outbound administrator level rights.

### **Steps:**

1. On the Administrator UI login screen, type your admin level User ID and Password in the provided fields and click **Go**.  
The Advanced Outbound Administration UI appears, displaying the Campaign Schedules tabpage.
2. On the Campaign Schedules tabpage, click the **Calling Calendars** tab.  
The calling calendars tabpage appears, displaying a list of all existing country calendars. The Country Calendars window is the default view for the calling calendars tabpage.
3. On the Country Calendars window, click the **User Defined Calendars** subtab.  
The User Defined Calendars window appears, displaying a list of all existing user defined calendars.
4. On the User Defined Calendars window, click **Create Calendar**.  
The Create User Defined Calendar window appears.

5. On the Create User Defined Calendar window, type a name for the new user defined calendar.
6. You can create a user defined calendar by three different methods: you can copy and existing country calendar, you can copy and existing user defined calendar, or you can create a completely new user defined calendar. Click the appropriate radio button to select the method by which you will create the user defined calendar.
  - a. To create a user defined calendar by using an existing country calendar as a model, click the **Copy Country Calendar** radio button and select the country you want to use from the drop-down list in the field next to the radio button.
  - b. To create a user defined calendar by using an existing user defined calendar, click the **Copy User Defined Calendar** radio button and select which existing user defined calendar you want to use from the drop-down list in the field next to the radio button.
  - c. To create a completely new user defined calendar, click the **Create New Calendar** radio button.

7. Click **Create**.

The User Defined Calendar Details window appears.

8. From the calendar, click the calendar region corresponding to the time you want the calendar to begin calling on the day you want to start calling (example - Monday at 9:00).

The Calendar Region Details window appears.

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---

**Note:** To open to the Calendar Region Details window, you can click anywhere in the calendar; however, by clicking the day and time you want to begin calling, you automatically populate the week day and start time fields in the Calendar Region Details window.

---

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9. From the drop-down list in the Region Type field, select **Callable** if you want to add callable hours to the default country calendar, select **Not callable** if you want to override a callable region on the country calendar, or click **Not specified** if you do not want to change the particular callable region on the country calendar.

10. In the Start Time Hour and Minute fields, if the start time has not automatically defaulted to the time you want the user defined calendar to begin taking effect, click the drop-down arrows in each field and select the hour and minute from the respective lists.

---

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**Note:** All times in the Hour field are displayed in 24 hour format (0:00 - 24:00). The Minute field allows you to select between **00** (on the hour) and **30** (on the half-hour) time increments.

---

---

11. In the End Time Hour and Minute fields, click the drop-down arrows in each field and select the hour and minute from the respective lists. The end time is the time at which your user defined calendar will terminate and the default callable regions on the country calendar will resume.
12. In the Copy To area, select the days of the week to which you wish to copy this calling schedule (if any).

---

---

**Note:** Copying the calling schedule in this way is not required; however, if your calling schedule will not vary greatly between days of the week, this method provides a quick means to populate a baseline calling calendar. You can always go back to the individual days and modify the specific calling times.

---

---

13. Click **Apply**.

The user defined calendar is created and you return to the User Defined Calendar Details window.

14. In the Override Country Calendar field on the User Defined Calendar Details window, select **Yes**, or **No** from the drop-down list.

---

---

**Note:** You must select **Yes** to execute the user defined calendar. If you select **No**, the user defined calendar will still be created, but it will not alter or expand upon the calling hours of the existing country calendar.

---

---

15. Click **Update**.

The Update User Defined Calendar Conformation window appears, warning you that overriding the country calendar will cause all users of this calendar to ignore any country specific restrictions.

16. Click **Apply** to override the country calendar with the user defined calendar.

The user defined calendar is created and you return to the User Defined Calendar Details window.

## 5.20 Create Recycling Algorithms

Recycling is the process of determining how to process records that have been dialed. When a record is returned, a user-definable recycling algorithm is executed, which looks at the record, the call results, and previous calls to the record.

When creating a recycling algorithm, you must first decide whether you will use an existing algorithm as a model for your new one, or whether you want to create a completely new algorithm. If an existing algorithm contains relatively similar pre or post-processing actions, conditions or sub-conditions, you should use it as a basis for your new algorithm. The Advanced Outbound HTML Administration console allows you to do this by permitting you to copy existing algorithms. If your new algorithm will be significantly different from any existing ones, you should create a completely new algorithm.

You must then add or modify pre or post-processing actions (not required), or the conditions or sub-conditions for the algorithm. You then need to add an action for each condition or sub-condition. These actions will determine how the record is handled if the condition or sub-condition under which you add it is met.

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**Important:** Each condition or sub-condition must have an associated action or you will receive an error.

---

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### **There are two ways to create a recycling algorithm:**

- by copying an existing recycling algorithm
- by creating a completely new recycling algorithm

### **You can also add pre and post-processing actions, and conditions to the algorithm:**

Adding Pre or Post-Processing Actions

Adding Algorithm Conditions

## 5.20.1 Creating Recycling Algorithms by Copying an Existing Algorithm

Use the steps below to create recycling algorithms by copying existing algorithms in Oracle Advanced Outbound.

### Prerequisite:

In order to create recycling algorithms, you must have Advanced Outbound administrator level rights.

### Steps:

1. On the Administrator UI login screen, type your admin level User ID and Password in the provided fields and click **Go**.  
The Advanced Outbound Administration UI appears, displaying the Campaign Schedules tabpage.
2. On the Campaign Schedules tabpage, click the **Algorithms** tab.  
The Recycling Algorithms tabpage appears, displaying a list of all existing recycling algorithms. The Recycling Algorithm window is the default view for the algorithms tabpage.
3. On the Recycling Algorithms tabpage, click **Create Recycling Algorithm**.  
The Create Recycling Algorithm window appears.
4. On the Create Recycling Algorithm window, type a name for the new recycling algorithm in the Algorithm Name field.

---

---

**Note:** Algorithm names have a 64 character limit and only the following characters are supported:

- A-Z
  - 0-9
  - underscore, space, and hyphen
- 
- 

5. Click the **Copy From Existing Algorithms** radio button and from the drop-down list in the provided field, select the existing algorithm you want to copy.
6. Click **Create**.  
The new recycling algorithm is created.

The Recycling Algorithm window appears, displaying the summary view of the algorithm conditions.

## 5.20.2 Creating Completely new Recycling Algorithms

Use the steps below to create completely new recycling algorithms in Oracle Advanced Outbound.

### Prerequisite:

In order to create recycling algorithms, you must have Advanced Outbound administrator level rights.

### Steps:

1. On the Administrator UI login screen, type your admin level User ID and Password in the provided fields and click **Go**.

The Advanced Outbound Administration UI appears, displaying the Campaign Schedules tabpage.

2. On the Campaign Schedules tabpage, click the **Algorithms** tab.

The Algorithms tabpage appears, displaying a list of all existing recycling algorithms. The Recycling Algorithm window is the default view for the algorithms tabpage.

3. On the Algorithms tabpage, click **Create**.

The Recycling Algorithm Creation window appears.

4. On the Recycling Algorithm Creation window, type a name for the new recycling algorithm in the Algorithm Name field.

---

---

**Note:** Algorithm names have a 64 character limit and only the following characters are supported:

- A-Z
  - 0-9
  - underscore, space, and hyphen
- 
- 

5. Click the **Create New Algorithm** radio button and from the drop-down list in the Select Source Type field, select the source type you want to use.

---

---

**Note:** Source types define how fields from the database (typically TCA) map to the columns of a list entry.

Oracle Advanced Outbound recycling algorithms are directly associated to source types because they define which fields are present in a list.

Oracle Advanced Outbound supports two source types:

- B to B - Business to Business (ORG\_CONTACT\_LIST)
  - B to C - Business to Consumer (PERSON\_LIST)
- 
- 

#### 6. Click **Create**.

The new recycling algorithm is created.

The Recycling Algorithm Detail window appears, displaying the summary view of the algorithm conditions. Since this is a new algorithm, no existing pre or post-processing actions, or add algorithm conditions should be displayed.

### 5.20.3 Adding Pre or Post-Processing Actions

Recycling algorithms utilize pre and post-processing actions to determine what happens to records before and after (respectively) the conditions apply.

Use the steps below to add pre or post-processing actions to existing recycling algorithms in Oracle Advanced Outbound.

#### **Prerequisite:**

In order to add pre or post-processing actions, you must have Advanced Outbound administrator level rights. You must also have an existing algorithm, to which you can add the pre or post-processing actions.

#### **Steps:**

1. On the Administrator UI login screen, type your admin level User ID and Password in the provided fields and click **Go**.

The Advanced Outbound Administration UI appears, displaying the Campaign Schedules tabpage.

2. On the Campaign Schedules tabpage, click the **Algorithms** tab.

The Algorithms tabpage appears, displaying a list of all existing recycling algorithms. The Recycling Algorithm window is the default view for the algorithms tabpage.

3. From the list of existing recycling algorithms, click the algorithm name of the algorithm to which you want to add pre or post-processing actions.

The Recycling Algorithm window appears, displaying a summary view of all the existing pre and post-processing actions and all the existing conditions.

4. From the Recycling Algorithm window, click **Pre-Processing Action(s)** to add pre-processing actions, or **Post-Processing Action(s)** to add post-processing actions.

The Edit Recycling Algorithm Action window appears, displaying a summary view table for pre or post-processing actions (depending on what you clicked in step 4).

5. From the Action column of the summary view table, click the drop-down arrow and select the action you want to add and click **Update**.

---

---

**Note:** Some actions require you to enter further information. The actions that require additional information have "..." after their name in the drop-down list. If the action you selected requires additional information, when you click **Update**, additional fields will appear, in which you need to enter information. Once you have entered the necessary additional information, click **Update**.

---

---

The selected action is added and the summary view table updates to show the new action.

## 5.20.4 Adding Algorithm Conditions

Conditions and sub-conditions determine how the algorithm processes records that have been dialed. Conditions and sub-conditions are composed of three parts:

- A condition
- An operator
- A value

To avoid confusion, since the first component of the algorithm condition being added is also called a condition, we refer to the entire statement (condition,

operator, and value) as an expression for the purposes of this guide. Expressions are structured in the following order: *condition operator value*. For example: *STATUS contains ACTIVE* (where *STATUS* is the condition, *contains* is the operator, and *ACTIVE* is the value), or: *HOUSEHOLD\_SIZE greater than 3* (where *HOUSEHOLD\_SIZE* is the condition, *greater than* is the operator, and *3* is the value).

The Oracle Advanced Outbound HTML Administration console displays expressions and their sub-conditions in a treeview model.

**Example:**

Condition 1

    Sub-condition 1

    Sub-condition 2

Condition 2

    Sub-condition 1

In the above example, Condition 1 and Condition 2 are top level conditions. If you want to have more than one expression in a single condition, it is very important how the expressions are joined (by AND or by OR).

If you want to have multiple top level conditions in your recycling algorithm, their order is very important. Once a condition is met, Oracle Advanced Outbound ignores all other conditions at the same level and only completes execution for the process within that condition block. In the above example, if Condition 1 is met, then Condition 2 (and Sub-condition 1 under Condition 2) will be ignored.

Use the steps below to add algorithm conditions (expressions) to existing recycling algorithms in Oracle Advanced Outbound.

**Prerequisite:**

In order to add algorithm conditions, you must have Advanced Outbound administrator level rights. You must also have an existing algorithm, to which you can add the conditions.

**Steps:**

1. On the Administrator UI login screen, type your admin level User ID and Password in the provided fields and click **Go**.

The Advanced Outbound Administration UI appears, displaying the Campaign Schedules tabpage.

2. On the Campaign Schedules tabpage, click the **Algorithms** tab.

The Algorithms tabpage appears, displaying a list of all existing recycling algorithms. The Recycling Algorithm window is the default view for the algorithms tabpage.

3. From the list of existing recycling algorithms, click the algorithm name of the algorithm to which you want to add conditions.

The Recycling Algorithm window appears, displaying a summary view of all the existing pre and post-processing actions and all the existing conditions.

---

---

**Note:** If this is a new algorithm, the summary view will not contain any actions or conditions.

---

---

4. From the Recycling Algorithm window, click **Root**.

The Recycling Algorithm Condition Detail window appears, displaying two areas:

- a Sub-Conditions area
- an Actions if no sub-condition met area

5. Under the Sub-Conditions heading, click **Insert Condition**.

The Edit Recycling Algorithm Condition window appears, displaying a summary view table for algorithm conditions.

6. From the Expression column, click the drop-down arrow and select the condition you want from the list and click **Update**.

The Expression column expands with additional fields, to allow you to enter the operator and value for the condition.

7. From the drop-down field in the Expression column (directly after the condition statement), select the operator you want to use for your expression.
8. From the last drop-down field in the Expression column, select the value you want to use for your expression and click **Update**.

The summary view table updates to show your new expression.

---

---

**Note:** If you want to add multiple expressions to the condition statement, repeat steps 6-8 in the next set of fields below the ones for your current expression, but remember to select how you want the expressions joined from the drop-down list in the Expressions Joined By field before clicking **Update**.

---

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---

**Note:** If you want to add additional conditions, repeat steps 5-8 for each additional condition.

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## 5.21 Create Record Filters

Record filters are filters against which records are checked at the point of release. Record filters are created and applied to lists. They are able to check fields of list entries. Record filters check release fields to ensure they match defined parameters (STATE equal to Virginia). A match here will prevent the release of the record.

The record filter process occurs after a record is selected and provides a last minute means to filter records from being called. If a record does not pass the release checkpoint process, the record will be recycled according to the rules defined for recycling processing.

The release criterion should be defined in an SQL statement where any field(s) available in AMS\_LIST\_ENTRIES table may be used as a criterion.

Record filters utilize expressions in a similar manner as recycling algorithms. However, instead of being called conditions, they are called rules. They use the following three components:

- Field
- Operator
- Value

Record filter rules are structured in the following order: *field operator value*. For example: *PERSON\_FIRST\_NAME equal to James* (where *PERSON\_FIRST\_NAME* is the field, *equal to* is the operator, and *James* is the value). The combination of these three elements (field, operator, and value) is called an expression.

The Oracle Advanced Outbound HTML Administration console displays rules in an alphanumeric hierarchy.

**Example:**

Rule 1

PERSON\_LAST\_NAME begins with W OR PERSON\_LAST\_NAME begins with B

AND PERSON\_FIRST\_NAME equal to James

OR Rule 2

PARTY\_ID greater than 1200 AND PARTY\_ID less than 2500

OR Rule 3

CUSTOMER\_KEY has a value

In the above example, the lines under each rule are conditions for that rule. You can have multiple expressions in a single condition (as seen under Rule 2) and you can have multiple conditions under a single rule (as seen in Rule 1). If you want to have more than one expression in a condition, or more than one condition in a rule, it is very important how they are joined together (by AND or by OR).

Separate top level rules are *only* joined together by **OR**; however multiple expressions within a single condition, and multiple sub-conditions within a single rule can be joined by either **AND** or **OR**.

If you want to have multiple top level rules in your recycling algorithm, their order is very important. Once a rule is met, Oracle Advanced Outbound ignores all other rules at the same level and only completes execution for the process within that set of rules. In the above example, if Rule 1 is met, then Rule 2 and Rule 3 are ignored.

Use the steps below to create record filters in Oracle Advanced Outbound.

**Prerequisite:**

In order to create record filters, you must have Advanced Outbound administrator level rights.

**Steps:**

1. On the Administrator UI login screen, type your admin level User ID and Password in the provided fields and click **Go**.

The Advanced Outbound Administration UI appears, displaying the Campaign Schedules tabpage.

2. On the Campaign Schedules tabpage, click the **Algorithms** tab.

The Algorithms tabpage appears, displaying a list of all existing recycling algorithms. The Recycling Algorithm window is the default view for the algorithms tabpage.

3. On the Algorithms tabpage, click the **Record Filters** sub-tab.

The Record Filters window appears, displaying a list of the existing record filters.

4. On the Record Filters window, click **Create**.

The New Record Filter window appears.

5. In the Algorithm Name field, type a name for the new record filter.

---

---

**Note:** Record filter names have a 64 character limit and only the following characters are supported:

- A-Z
  - 0-9
  - underscore, space, and hyphen
- 
- 

6. In the Select Source Type field, click the drop-down arrow and select the source type you want to use.

---

---

**Note:** Source types define how fields from the database (typically TCA) map to the columns of a list entry.

Oracle Advanced Outbound recycling algorithms are directly associated to source types because they define which fields are present in a list.

Oracle Advanced Outbound supports two source types:

- B to B - Business to Business (ORGANIZATION\_CONTACT\_LIST)
  - B to C - Business to Consumer (PERSON\_LIST)
- 
- 

---

---

**Note:** You can click **Clear** to delete the algorithm name and selected source type.

---

---

7. Click **Next**.

The Record Filter Rules window appears.

8. On the Record Filter Rules window, click **Insert Rule**.

The Record Filter Create Rule window appears, displaying a summary view table for record filter conditions.

---

---

**Note:** If this is a new record filter, the summary view will not contain any record filters.

---

---

9. From the Field column, type the name of the record field against which you want to run the record filters.

10. From the Operator column, click the drop-down arrow and select the operator you want to use in your record filters from the list.

11. From the Value field, type the value you want to use for your record filters.

12. Click **Create**.

The Record Filter Edit Rule window updates to display a confirmation note, stating that the record filter rule was created successfully.

13. If you want to add additional expressions to the same condition: repeat steps 9-12 in the next set of fields below the current expression, and click **Create**.

14. If you want to add additional conditions to the same rule:

- a. From the drop-down list in the Add field, select the number of additional conditions you want to add, and click **Go**.

The Record Filter Create Rule window updates to display a second summary view table, in which you can create additional conditions for the record filter rule.

- b. Repeat steps 9-12 (in the new summary view table fields), and click **Create**.

15. Click **Done**.

The Record Filter Rules window appears, displaying the new rule(s).

## 5.22 Create Validation Rules

Validation rules allow you to make exceptions to the automatic list validation process. For example, you can use validation rules when you don't know the

country code or time zone, but you know you will be dialing calls in a certain time zone. If the country code or time zone is not known these records will fail the list validation process and will not be dialed. You can set a validation rule to allow you to dial these records because you are confident of what is in the list. By doing this, you can prevent these calls from failing the list validation process, and thereby not being dialed.

Validation rules are composed of actions. The order of these actions is very important. Advanced Outbound reads the actions from top to bottom. When the first action fails, the rest of the actions under it are ignored. Therefore, you should put the most generic actions at the top. This strategy will conserve processing time.

### **Validation Rule Example:**

Phone Country Code is 1

Timezone is America/New\_York

In the above example, country code is placed first. The country code rule is the more generic of the two, therefore it is first. If the record fails the country code rule, it will certainly fail the TimeZone rule.

Use the steps below to create validation rules in Oracle Advanced Outbound.

### **Prerequisite:**

In order to create validation rules, you must have Advanced Outbound administrator level rights.

### **Steps:**

1. On the Administrator UI login screen, type your admin level User ID and Password in the provided fields and click **Go**.

The Advanced Outbound Administration UI appears, displaying the Campaign Schedules tabpage.

2. On the Campaign Schedules tabpage, click the **Algorithms** tab.

The Algorithms tabpage appears, displaying a list of all existing recycling algorithms. The Recycling Algorithm window is the default view for the algorithms tabpage.

3. Click the **Validation** subtab.

The Validation Rules window appears, displaying a summary view table of all existing validation rules.

4. Click **Create**.

The Create Validation Rule window appears.

5. On the Create Validation Rule window, type a name for the validation rule in the Rule Name field and click **Create**.

---

---

**Note:** Rule names have a 64 character limit and only the following characters are supported:

- A-Z
  - 0-9
  - underscore, space, and hyphen
- 
- 

The Validation Rule Details window appears.

6. On the Validation Rule Details window, click **Insert Action**.

The Edit Validation Rule Actions window appears, displaying a summary view table of all existing validation actions.

---

---

**Note:** If this is a new validation rule, the summary view will not contain any actions.

---

---

7. From the drop-down list in the action column, select the action you want to use for your validation rule, and click **Update**.

---

---

**Note:** Some actions require you to enter further information. The actions that require additional information have "..." after their name in the drop-down list. If the action you selected requires additional information, when you click **Update**, additional fields will appear, in which you need to enter information. Once you have entered the necessary additional information, click **Update**.

---

---

The selected action is added and the summary view table updates to show the new action.

## 5.23 Define Calling List Parameters

Use the steps below to define the parameters necessary to setup a list (Marketing Online's target group) for outbound calling.

### Prerequisite:

In order to modify the configuration of campaign schedules for interaction center execution, you must have Advanced Outbound administrator level rights.

1. On the Administrator UI login screen, type your admin level User ID and Password in the provided fields and click **Go**.

The Advanced Outbound Administration UI appears, displaying the Campaign Schedules tabpage. The Campaign Schedules tabpage is the default window for the Oracle Advanced Outbound HTML Administration console. When it appears, it displays a summary view table of campaign schedules.

2. From the Name column of the summary view table on the Campaign Schedules tabpage, click the name of the campaign schedule on which you want to modify the configuration.

The Call Center Campaign Schedule Details window appears, displaying a Call Center Parameters area and a Predictive Telephony Parameters area.

3. From the side navigation bar, click **Campaign Schedule Lists**.

The Interaction Center Campaign Schedule Lists window appears, displaying a summary view table of the list associated to the selected campaign schedule.

4. From the Name column of the summary view table, click the name of the list for which you want to configure dialing parameters.

The Interaction Center Campaign Schedule List Details window appears.

5. From the drop-down list in the Dialing Method field, select the dialing method to use for the list, or select to default to the campaign schedule's dialing method.
6. From the drop-down list in the List Priority field, select the priority you want to assign the list.

---

---

**Note:** Priorities determine the relative priority of a list or subset in comparison to other lists and subsets.

Highest through Medium level priorities are preemptive; all lists with priorities in this range will be exhausted in priority sequence before the next priority level is used. Low and Lowest priorities are used in round-robin fashion; each of these lists will release its quantum of records, then the next list in the same priority level will be used.

At this time, Oracle Marketing Online does not support multiple calling lists.

---

---

7. From the drop-down list in the Recycling Algorithm field, select the recycling algorithm you want to use for the list.
8. From the drop-down list in the Record Filter field, select a record filter rule to use with the list.
9. From the drop-down list in the Validation Rule field, select a validation rule to use with the list.
10. From the drop-down list in the Calendar field, select a user defined calendar to use with the list.
11. From the drop-down list in the Release Strategy field, select a release strategy to use with the list.

---

---

**Note:** The quantum release strategy supports proportional calling across all lists and subsets associated with the campaign strategy and it is considered the baseline strategy for an Advanced Outbound service. This means that when Advanced Outbound is distributing customer records to agents, it releases a quantum number of records from each list or subset before it goes on to the next list or subset in the campaign.

The Quota Release Strategy stops releasing records from a list or subset when a pre-defined limit has been reached. This strategy disburses records from a list or subset based on the quota that is assigned to a list or subset.

---

---

12. Depending on your selection in the previous step, type the number of records you want to set as your limit in either the Quantum or Quota field.

---

---

**Note:** If you selected **Quota** in step 11, you must select the hour and minute reset period from the drop-down list in each respective field. These fields specify the hours and minutes before the quota value is reset to zero (0).

---

---

13. Click **Update**.

The Interaction Center Campaign Schedule List Details windows updates to reflect the new dialing parameters and displays a confirmation stating that the dialing parameters have been configured successfully.

## 5.24 Define Automated Messaging

What you are actually doing in this topic is importing a pre-recorded message and configuring it for use by Advanced Outbound.

---

---

**Note:** Messages must be recorded into a .wav or .vox file using an external utility (these programs come with all modern operating systems). The messages are then imported into the database and associated to campaign schedules using the Advanced Outbound administrative interface.

---

---

Use the steps below to create messages in Oracle Advanced Outbound.

### **Prerequisite:**

In order to create messages, you must have Advanced Outbound administrator level rights.

### **Steps:**

1. On the Administrator UI login screen, type your admin level User ID and Password in the provided fields and click **Go**.

The Advanced Outbound Administration UI appears, displaying the Campaign Schedules tabpage.

2. On the Campaign Schedules tabpage, click the **Telephony** tab.

The Telephony tabpage appears, displaying a summary view table of all existing VDUs. The Voice Detection Unit subtab window is the default view for the Telephony tabpage.

3. On the Voice Detection Unit window, click the **Voice Messages** subtab.

The Voice Messages window appears, displaying a summary view table of all existing messages.

4. On the Voice Messages window, click **Create**.

The Voice Messages -- Create window appears.

5. In the Message Name field, type a name for the message.

---

---

**Note:** Message names have a 64 character limit and only the following characters are supported:

- A-Z
  - 0-9
  - underscore, space, and hyphen
- 
- 

6. In the description field, type a description on the message.

7. From the drop-down list in the Message Type field, select if the message will be an answering machine message or a front hold message.

8. From the drop-down list in the Format field, select the message format.

---

---

**Note:** Oracle Advanced Outbound supports the following message formats:

- 11Khz, 8Bit wav files
  - 8Khz, 8Bit wav files
  - 6Khz, 8Bit wav files
  - vox files
- 
- 

9. In the File Name field, click **Browse**.

A browse dialog box opens, allowing you to browse your local drives or the network to find the message file you want.

10. Once you have located the file, select it and click **Open**.

The selected file name appears in the File Name field.

11. Click **Create**.

The Voice Messages window appears displaying a confirmation message stating that the message has been created successfully and the new message is displayed in the summary view table.

## 5.25 Configure UWQ to launch the Outbound Desktop Application

This setup is necessary to configure the application that needs to be popped, or launched, for an outbound media item. To configure a media screen pop for the UWQ Desktop, you must configure the media actions for Advanced Outbound.

To configure the UWQ media actions for Advanced Outbound:

1. In UWQ, click **IEU Media Classification Action Association**.

The Media Classification Action Association window appears.

2. From the drop-down list in the Media Type column, select **Advanced Outbound Telephony**.
3. In the Classification column, type **Campaign** to associate to outbound TeleSales, or type **Collections** to associate to outbound Collections.
4. From the drop-down list in the Media Action column, select the Oracle application you want to launch.
  - If you typed **Campaign** in the Classification column (step 3), then select **TeleSales Outbound Telephony function**.
  - If you typed **Collections** in the Classification column (step 3), then select **Outbound Collections Telephony function**.

For more information and detailed steps setting up the media actions for Advanced Outbound, refer to the *Oracle Universal Work Queue Implementation Guide*.

## 5.26 Create and Configure Agents for Outbound Telephony

These setup steps are necessary in order to enable agents with outbound media responsibility. The steps for setting up AO user accounts include:

1. Create the user as an employee in HRMS.

2. Create CRM user.
  - a. Create CRM user.
  - b. Link the HRMS employee to the CRM user.
  - c. Assigning a CRM user responsibility.
3. Set user profile options to include outbound telephony.
4. Assign agent to outbound telephony campaign.

The above setup steps are beyond the scope of this guide, For more details, refer to the following Guides:

1. *Managing People Using Oracle HRMS, Release 11i* (HRMS Manager > People > Enter and Maintain)
2. *Oracle Applications System Administrator's Guide* (System Administrator > Security > Users > Define)
3. *BR.100 Universal Work Queue* for Media Profile configurations (System Administrator > Profile > Find System Profile Values)
4. *Oracle TeleSales User's Guide* (TeleSales Administrator > Campaign Agent Assignment)

For Oracle TeleSales, the following user profile options will need to be set to "Yes"

- IEU: QUEUE: Forecasts
- IEU: QUEUE: Inbound Telephony
- IEU: QUEUE: Leads
- IEU: QUEUE: Opportunities
- IEU: QUEUE: Outbound Telephony
- IEU: QUEUE: Tasks

## 5.27 Associate Outcome/Result/Reason Codes to the Campaign Schedule

Before an Advanced Outbound campaign schedule can be executed by a TeleSales agent, the Sales Administrator must define the outcome/result/reason codes that are available for use by the campaign schedule. These codes are seeded in Interaction History, where the Sales Administrator may append/define additional

codes. However, before the codes are made available from the TeleSales wrapup screen form, they must first be associated to a campaign schedule.

The association of Outcome/Result/Reason codes takes place in the Oracle TeleSales HTML Admin Console (in the Call Center tab). For more information and detailed steps on assigning these codes, refer to the *Oracle TeleSales Implementation Guide* and the *Oracle TeleSales Concepts and Procedures Guide*.

It is recommended that all outcome and result codes be assigned to the campaign schedule through this process. The outcome/result conditions should be checked within the recycling algorithm associated to the campaign schedule.

## 5.28 Assign Agents to the Campaign Schedule

Before an Advanced Outbound campaign schedule may be executed by a TeleSales agent, the TeleSales agent must be assigned to the Campaign Schedule by the Sales Administrator. This assignment allows the agent to view the campaign schedule(s) as a node(s) on their UWQ Outbound Telephony.

The assignment of an agent to a campaign schedule takes place in the Oracle Sales HTML Admin console (in the Call Center tab). For more information and detailed steps on assigning agents to Campaign Schedules, refer to the *Oracle TeleSales Implementation Guide* and the *Oracle TeleSales Concepts and Procedures Guide*.

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**Note:** TeleSales agents will not be able to view the campaign schedule from UWQ, until the campaign schedule setup has been completed in Advanced Outbound and the campaign schedule has been set to an 'Active' state.

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## 5.29 Start the Servers

This process is performed in Oracle ICSM. For more information and detailed steps on starting servers, refer to the *Oracle Applications Interaction Center Implementation Guide*.



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# Diagnosics and Troubleshooting

Use the information in this topic group to troubleshoot your implementation of Oracle Advanced Outbound.

## 6.1 Advanced Outbound Central Server Troubleshooting

This topic group contains information to help you resolve common problems with the AO Central Server.

The following topics are included:

- Cannot Start the Server

- AOCS starts but does not get records

### 6.1.1 Cannot Start the Server

1. No database connection

Check the .dbc file, make sure that NUM\_CONNECTIONS in dbc file is high enough.

2. ICSM setup is incorrectly

Check server arguments.

3. Server or plugin parameters are incorrect

4. DB Server Time Zone is incorrect

Correct the DB Server Time Zone using the AO Administrator utility, under the Administration Tab.

5. Another OCS is running

Use ICSM to check/change server status.

### 6.1.2 AOCs Starts but Does not get Records

1. Make sure the schedule has been marked for Telemarketing.
2. Make sure the schedule has a status of 'LOCKED'.
3. Make sure the target group has been generated for the schedule using lists that have been generated using one of the two supported source types.
4. Make sure the target group has a status of 'LOCKED' in order to validate target group.
5. Make sure that the list is executing

## 6.2 Advanced Outbound Dial Server Troubleshooting

This topic group contains information to help you resolve common problems with the AO Dial Server.

The following topics are included:

Server Does not Start

### 6.2.1 Server Does not Start

1. No database connection  
Check the dbc file
2. ICSM setup is incorrect  
Check server arguments
3. Server parameters are incorrect
4. Another Dial Server is running with the same server id  
Use ICSM to check/change server status

### 6.2.2 Agent was not Able to Login

1. Make sure that the agent is assigned the System Profile for AO  
Use the System Administrator Responsibility, and click **System**, then **Profile**.  
Set the AO profile parameters to "Yes".

2. Make sure that the agent is assigned to one of the running campaign schedules.
3. Make sure that there are valid executing campaign schedules.

### 6.2.3 Agent cannot get Work

1. Check if the agent / campaign schedule association is set.
2. Check if the campaign schedule / list is in the correct state and that the calendar is callable.
3. Check the number of available records in this list.
4. Records may not be in cache, check if Central Server has been started; check the execution interval of the Refresh plugin.
5. Wait and test again.

### 6.2.4 Dials Cannot be Placed

1. Make sure that the correct extension was provided.
2. Make sure that the middlewares in your server group are configured correctly (use the Call Center HTML Administrator responsibility, "Middleware" tab).

Check the IP address and the port of CCC server.

Make sure that the CCC is set to "Use with Advanced Outbound".

3. Make sure that the CCC server is up.
4. Make sure that VDUs are correctly configured (Advanced Outbound Administrator responsibility, "Telephony" Tab).

The status must be set to "ACTIVE".

The VDUs must be associated with correct middleware and dial server.

In the case of multiple VDUs per middleware, make sure rotary settings do not conflict.

Make sure that the port numbers/Extensions are correct.

### 6.2.5 Receiving too few Records for List

1. Check to ensure there is a country calendar defined for each country code used in the list.

2. Check to ensure each lists source type matches the source type defined for the target group.

### 6.2.6 Receiving no Records

1. Check to ensure the source type defined for the target group matches the source type defined for the lists.
2. If list validation fails, you should check the AO central server log files (via Oracle Call Center Technology Admin --- ICSM tab). If you see a message indicating that the database view is missing, you must go into the Oracle Marketing Online Admin (Administration > Marketing > Audience > Data Sources) and select data source types for Organization Contacts and Person List, then click **Update**. Selecting these data source types will create the OMO views used by AO.

## 6.3 Locating Debug and Trace Information

The Server log files can be found via ICSM under the “Advanced” link.

This topic group consists of topics providing information on how to add additional values to the seeded values shipped with Oracle Advanced Outbound.

The topics include:

- Adding Do Not Use Reason Codes
- Adding List Priority Values
- Setting the Positive Flag for Outcome and Result Codes

### A.1 Adding Do Not Use Reason Codes

Use the steps below to create additional Do Not Use Reason Codes.

#### Steps

1. Log into the Oracle Self Service Applications (forms) and select the Applications Developer responsibility.
2. Click **Applications, Lookups**, then **Common**.  
The Application Utilities Lookups window appears.
3. On the main toolbar of the Application Utilities Lookups window, click **View, query by example**, then **enter**.
4. Type **IEC%** in the query field.
5. On the main toolbar, click **View, query by example**, then **run query**.
6. From the list of returned values, locate the **IEC\_DNU\_RESASON** table.
7. Once you have located this table, you can create additional values by clicking the empty field directly below the last entry and typing in your values.

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**Note:** When you click an empty field, the Extensible radio button should automatically be selected. If not, be sure to select this radio button as it allows you to add values other than the seeded one.

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## A.2 Adding List Priority Values

Use the steps below to create additional List Priority Values.

### Steps

1. Log into the Oracle Self Service Applications (forms) and select the CRM Administrator responsibility.
2. Click **Interaction History Administrator**.  
A window appears, displaying tabs for Outcome, Result and Reason codes.
3. Click the tab to which you want to add values (Outcome, Result, etc.)
4. On the window's main toolbar, click **View, query by example**, then **enter**.
5. Type IEC% in the query field.
6. On the main toolbar, click **View, query by example**, then **run query**.
7. From the list of returned values, locate the AMS\_LIST\_PRIORITIES table.
8. Once you have located this table, you can create additional values by clicking the empty field directly below the last entry and typing in your values.

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**Note:** When you click an empty field, the Extensible radio button should automatically be selected. If not, be sure to select this radio button as it allows you to add values other than the seeded one.

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## A.3 Setting the Positive Flag for Outcome and Result Codes

Use the steps below to create additional List Priority Values.

**Steps**

1. Log into the Oracle Self Service Applications (forms) and select the CRM Administrator responsibility.
2. Click **Interaction History Administrator**.  
A window appears, displaying tabs for Outcome, Result and Reason codes.
3. Click the tab to which you want to add values (Outcome, Result, etc.)
4. On the window's main toolbar, click **View, query by example**, then **enter**.
5. Type **IEC%** in the query field.
6. On the main toolbar, click **View, query by example**, then **run query**.
7. Use the up and down scroll arrows on your keyboard to scroll through the list of returned values.
8. Click the Positive Outcome flag checkbox for each value that has a positive outcome.



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# Glossary

## **Abandoned Calls**

A call that was dialed by the predictive dialing server; however no agent was available when the call was connected, therefore the predictive server dropped the line. Also known as nuisance calls. The goal of Advanced Outbound is to reduce/eliminate these calls.

## **Automatic Call Distributor (ACD)**

ACDs are automated systems that answer calls and attempt to route those calls as quickly as possible to the right person or agent. ACDs are used to uniformly distribute a large volume of incoming calls to a number of operators as soon as they have a free line and are often used by businesses with a large number of incoming calls such as airlines and insurance companies. Sometimes ACDs will prompt you to press a few touch-tone digits so that they can route your call more quickly.

## **Calendar**

Specify dates and times when the list is accessible. Advanced Outbound utilizes two types of calendars, Country and User Defined.

## **Callback**

A feature of Advanced Outbound that allows a call to recur at a specified interval if a live contact is not achieved on the first attempt.

## **Call Progress Detection**

The process of listening for audible tones such as dial tone, SIT tones, busy signals, and ring-back tones to determine the state of a call through the network. When dialing in predictive mode, this process is done through the ISDN Network

Interface boards. In non-predictive dialing modes (preview, and progressive), the agent will have the responsibility of determining the call progress.

### **Calling List**

A collection of records containing a unique identifier, and possibly other information about a customer/contact/prospect. Calling lists are generated by Oracle Marketing Online and executed within Oracle Advanced Outbound.

### **Call Outcome**

A consequence from a dial attempt to contact a customer. 'Outcome' reflects network connectivity (e.g. connect, busy, ring-no-answer, SIT, etc.); a list of system defined outcome codes are defined within Advanced Outbound, others may be user defined.

### **Call Result**

A consequence from a dial attempt to contact a customer. 'Result' reflects the results of a completed connection and is user/application defined. Examples of 'Results' could include: "Sale" or "No Sale" or "Wrong Party Contact".

### **Call Reason**

A consequence from a call result of a customer contact. 'Reason' codes are optional user/application defined. It is used to further detail the 'Result' of the call, such as "Too Expensive" or "Using Competitor's Product" or "No Interest"

### **Campaign**

An organizational unit of a focused marketing effort.

### **Campaign Schedule**

A time specification during which the campaign may execute.

### **Canonical Dialing Strings**

A format string for representing a telephone dialing sequence.

**Example:** + *CountryCode* **Space** (*AreaCode*) **Space** *SubscriberNumber*

The components of this structure are given in the following:

+ It indicates that the number that follows it uses the canonical format.

*CountryCode* - A variably sized string containing one or more of the digits **0-9**. The *CountryCode* is delimited by the following **Space**. It identifies the country in which the dial destination is located.

**Space** Exactly one character. It is used to delimit the end of the *CountryCode* part of a dial string.

*AreaCode* A variably sized string containing zero or more of the digits **0-9**. *AreaCode* is the long distance dialing information portion of the address and is optional. If the area code is present, it must be preceded by one left parenthesis, and followed by right parenthesis and one **Space** character.

*SubscriberNumber* A variably sized string containing one or more of the digits **0-9**.

### **Computer Telephony (CT)**

This term refers to technology that applies computer intelligence to making, receiving, and managing telephone calls. CT technology encompasses products such as voice and fax messaging, auto attendants, fax-on-demand, fax servers, and interactive voice response (such as automated order-entry systems). Core technologies include voice recognition, text-to-speech, and more recently, the Internet. In other words, CT systems automatically handle and process phone calls. These systems often let agents or call recipients control various aspects of the call using either a touch-tone phone or spoken commands.

### **Disconnect**

The dissociation or release of a switched circuit between two stations.

### **Front hold Message**

A message played when an agent is not available to take a call.

### **List Priority**

The list manager will select records to be pulled based on the priority of the lists, where the lower the number assigned to a list, the higher the priority of the list. Lists with the same priority will be round-robin.

### **List Subset**

A logical grouping of records within a list where members of the group must meet criteria defined for the group.

### **Marketing Medium**

A marketing medium is the marketing channel for your marketing activity. It is the specific magazine or television station where you advertise or the telemarketing center executing your campaign.

**No Answer Ring Count**

Specifies the number of rings before Advanced Outbound considers the call outcome to be “no answer”.

**Node**

Identifies the server (machine) on which the server process runs.

**Oracle CRM Foundation**

The CRM Foundation provides a variety of services that can be exploited, as appropriate, by any of the other applications of the Oracle CRM Suite. The CRM Foundation provides standard APIs for accessing and manipulating business objects such as customer, resource, and task records. In addition to these APIs, the Foundation also provides robust processing engines, such as Territory Manager and 1-to-1 Fulfillment. One of the most important components of the Oracle Foundation is the customer data model known as the Trading Community Architecture (TCA). This powerful model permits the capture of complex customer relationships and supports flexible business models across industries. Finally, the Foundation’s business APIs facilitate integration of the CRM suite with legacy or third-party applications in environments where that is essential.

**Predictive dialing**

Advanced placing of calls out to an automated dialer where the determination of when and how many calls are to be placed, is driven by an algorithm. The algorithm takes into consideration many factors (number of agents, agent talk time, connection rate, abandonment rate, etc.) and calculates the number of calls to place given the rate of agent availability.

**Prefetch**

Prefetch means that the Central Server fetches a certain number of records into its cache before they are requested by the Dial Server. The exact number of records is calculated by the server, based on requests from the Dial Server. The interval specifies how frequently this should be done by the server — to reduce making database trips on demand, and to reduce recycling unused records from the cache back to the database.

**Preview dialing**

A dialing method where agents are presented the record to be called, and the agents determine when the dial is to be placed.

**Private Branch eXchange (PBX)**

A private internal phone system that services a number of extensions. A PBX is invariably connected to an external public telephone system.

**Progressive dialing**

A dialing method where the system simultaneously initiates the dialing of the record with that of displaying the record to an agent for review.

**Quantum Release Strategy**

The base release strategy of the list manager, where quantum applies to all the other strategies. The quantum strategy round-robins the release of records from the list based on the quanta number assigned to the list. Each list releases a set number of records—its quantum—each time it is accessed, provided that there are that many records available in the list at that time.

**Quota Release Strategy**

Quota release strategy modifies the quantum release strategy to only allow the completion of a certain number of records—the list's quota—from a list during a time period specified in the parameters for the list. At the beginning of each time period the quota for the list is reset.

**Recycling**

The process of executing business rules as defined by Advanced Outbound to determine if and when a customer record should be called again.

**Record Filter Criteria**

A boolean condition logic which, in the context of this guide, specifies conditions which a record must meet before the record is available to be dialed.

**Special Information Tones (SIT)**

Signals from the telephone network when certain error conditions are encountered. Standard SIT tones detected by Advanced Outbound include:

- Reorder
- Vacant
- Busy
- Intercept

**Switch**

A piece of equipment that establishes and routes communication paths between separate extensions.

**Trading Community Architecture (TCA)**

The trading community architecture is an architecture concept designed to support complex trading communities. The goal of TCA is to provide the foundation for Oracle ERP, CRM, and E-Business applications (i.e. the entire E-Business Suite). To do this, TCA strives to model all relationships within a "Trading Community". This enables one data model to store B2B, B2B2C, B2C, B2C2C, and partner model data.

**Unsuccessful Call**

A call attempt that does not result in the establishment of a connection.