Oracle® eMail Center

Implementation Guide

Release 11*i*

February 2002

Part No. A95161-02

ORACLE®

Oracle eMail Center Implementation Guide, Release 11*i*

Part No. A95161-02

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Oracle eMail Center Implementation Guide, Release 11*i*

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Oracle Corporation welcomes your comments and suggestions on the quality and usefulness of this document. Your input is an important part of the information used for revision.

- Did you find any errors?
- Is the information clearly presented?
- Do you need more information? If so, where?
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- What features did you like most?

If you find any errors or have any other suggestions for improvement, please indicate the document title and part number, and the chapter, section, and page number (if available). You can send comments to us in the following ways:

- Postal service:
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  Oracle eMail Center Documentation
  196 Van Buren Street, Suite 200
  Herndon, Virginia 20170
  USA

If you would like a reply, please give your name, address, telephone number, and (optionally) electronic mail address.

If you have problems with the software, please contact your local Oracle Support Services.

Preface

Audience for This Guide

Welcome to Release 11*i* of the Oracle eMail Center Implementation Guide.

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

- The principles and customary practices of your business area.
- Oracle eMail Center

  If you have never used Oracle eMail Center, Oracle suggests you attend one or more of the Oracle eMail Center 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 eMail Center.

- Chapter 1 provides an overview of Oracle eMail Center (eMC).
- Chapter 2 provides details of eMC's architecture and technology.
- Chapter 3 provides details of eMC's installation process.
- Chapter 4 provides details of eMC's implementation process.

- Chapter 5 provides details of eMC's implementation tasks.
- Chapter 6 verifies the steps throughout the implementiation process for eMC.
- Chapter 7 provides troubleshooting information and FAQs for eMC.
- Abbreviation of eMC terms.
- Glossary of eMC.

Conventions

In this manual, Windows refers to the Windows95, Windows98, and the Windows NT operating systems.

Other Product One refers to Oracle Other Product One for Windows and Oracle Other Product One for UNIX software.

Version 7.0 of Oracle Other Product One software may be referred to as Other Product Two7.

The SQL interface to Oracle Other Product One is referred to as SQL. This interface is the Oracle Other Product One implementation of the SQL standard ANSI X3.135-1992, ISO 9075:1992, commonly referred to as the ANSI/ISO SQL standard or SQL92.

In examples, an implied carriage return occurs at the end of each line, unless otherwise noted. You must press the Return key at the end of a line of input.

The following conventions are also used in this manual:

Convention	Meaning
. . .	Vertical ellipsis points in an example mean that information not directly related to the example has been omitted.
. . .	Horizontal ellipsis points in statements or commands mean that parts of the statement or command not directly related to the example have been omitted
boldface text	Boldface type in text indicates a term defined in the text, the glossary, or in both locations.
< >	Angle brackets enclose user-supplied names.
[ ]	Brackets enclose optional clauses from which you can choose one or none.

Documentation Accessibility

Our goal is to make Oracle products, services, and supporting documentation accessible, with good usability, to the disabled community. To that end, our documentation includes features that make information available to users of assistive technology. This documentation is available in HTML format, and contains markup to facilitate access by the disabled community. Standards will continue to evolve over time, and Oracle Corporation is actively engaged with other market-leading technology vendors to address technical obstacles so that our documentation can be accessible to all of our customers. For additional information, visit the Oracle Accessibility Program Web site at http://www.oracle.com/accessibility/.

Accessibility of Code Examples in Documentation

JAWS, a Windows screen reader, may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, JAWS may not always read a line of text that consists solely of a bracket or brace.

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 eMail Center.

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 eMail Center 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 eMail Center.

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 from the Oracle Store at http://oraclestore.oracle.com.

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 eMail Center (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.

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 6*i* 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

Multiple Reporting Currencies in Oracle Applications

If you use the Multiple Reporting Currencies feature to record transactions in more than one currency, use this manual before implementing Oracle eMail Center. This manual details additional steps and setup considerations for implementing Oracle eMail Center with this feature.

Multiple Organizations in Oracle Applications

This guide describes how to set up and use Oracle eMail Center with Oracle Applications' Multiple Organization support feature, so you can define and support different organization structures when running a single installation of Oracle eMail Center.

Oracle Workflow Guide

This guide explains how to define new workflow business processes as well as customize existing Oracle Applications-embedded workflow processes.You also use this guide to complete the setup steps necessary for any Oracle Applications product that includes workflow-enabled processes.

Oracle Applications Flexfields Guide

This guide provides flexfields planning, setup and reference information for the Oracle eMail Center implementation team, as well as for users responsible for the ongoing maintenance of Oracle Applications product data. This manual also provides information on creating custom reports on flexfields data.

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 Manufacturing APIs and Open Interfaces Manual

This manual contains up-to-date information about integrating with other Oracle Manufacturing applications and with your other systems. This documentation includes API’s and open interfaces found in Oracle Manufacturing.

Oracle Order Management Suite APIs and Open Interfaces Manual

This manual contains up-to-date information about integrating with other Oracle Manufacturing applications and with your other systems. This documentation includes API's and open interfaces found in Oracle Order Management Suite.

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 eMail Center 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 eMail Center 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 Oracle8*i* server, and your hardware and software environment.

Oracle*MetaLink*

Oracle*MetaLink* 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 Oracle*MetaLin*k, 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 Oracle*MetaLink* alerts before you begin to install or upgrade any of your Oracl e Appl i cati ons. Navi gate t o t he Al erts 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.

1

Introduction

1.1 Oracle eMail Center (eMC) Overview

Oracle eMail Center is a complete solution for managing email interactions with customers, partners, suppliers, employees and other entities that interact with an organization.

Oracle eMail Center invokes appropriate, customizable processes that are targeted to handle different types of inbound email interactions. Every inbound email is analyzed using the Oracle Text component of the Oracle 8*i* database to determine the intent of the message based on its linguistic properties. Oracle Text, previously known as interMedia Text, provides a string of keywords, which are used to identify the intent of the email as well as search the Knowledge Base for related documents. The email is then routed to a queue which can be accessed by a pre-defined group of agents, based on user-defined rules. These rules could use data extracted from the email header, email intent and system variables such as time of day, and so on.

When the first available agent requests the next email interaction from the queue, the email is assigned to that agent and can no longer be viewed by other agents who are handling that account (or queue). Oracle eMail Center provides an agent with tools and capabilities to maximize their productivity and effectiveness. The eMC Agent Console displays the list of intents pertaining to that email sorted by their associated confidence scores (percent probability) and also provides the agent with a list of fully formed suggested responses for each of the above intents, which are also sorted by their respective confidence scores.

In this way, the agent can respond to multi-issue emails by using the point-and-click action of a mouse button. Agents can also access knowledge base repositories and insert or attach documents to the email response from the same. Additionally, the agents can browse through the folders on their desktop and select documents to be attached to the email.

In addition to managing inbound email interactions, eMail Center provides capabilities to initiate and manage outbound interactions. An agent can be provided with a set of templates or style sheets for composing outbound emails which are not in response to an incoming email. The agent can insert text into the email by browsing through the documents available in the Knowledge Base and selecting them to be inserted into the email by the click of a mouse button.

A full featured editor enables the agent to customize the responses as well as outbound email messages.

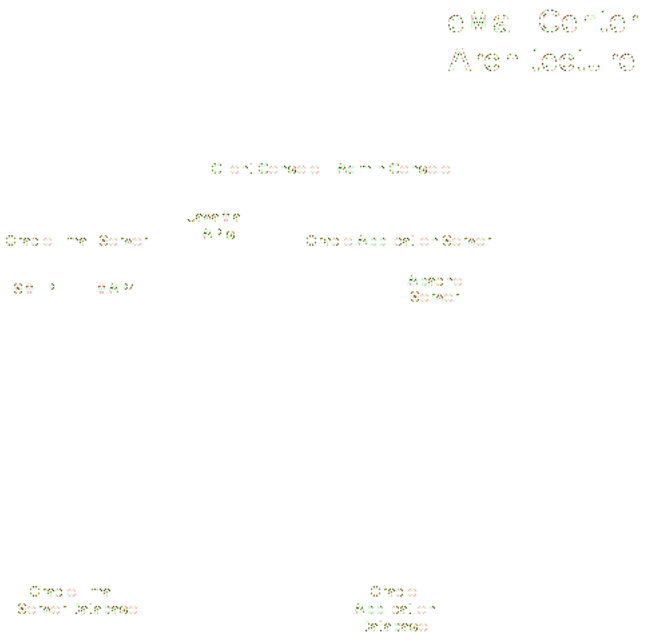
Oracle eMail Center is a comprehensive email interaction management solution for proactive relationship management that ultimately translates to a better customer experience.

2

Technology, Requirements, and Performance

2.1 eMC Architectural Overview

The following is a diagram of eMC's architecture and description:



1. **Oracle Customer Relationship Management (CRM) Applications database:**

This database contains the eMail Center schema and server-processing programs. This also holds all of CRM schema & API's including the CRM Foundation (IH) and Knowledge Base Applications (Marketing Encyclopedia System (MES) and Solution Management System (SMS).

The eMC pre-processing extracts information from the email header and extended headers and the incoming email is analyzed using Oracle Text, to provide a set of keywords that are used by the eMC Intent engine to determine the intent. An attempt is made to find the customer Id using the from-address of the email and the information is collected.

The eMC concurrent program launches the processing which records the Interaction History data; classifies the email and moves the email to the classification folder; searches the knowledge base repository for response documents; routes the email to a group of agents based on the user-defined rules.

2. Oracle Email Server database:

Oracle Email Server is the core email system that eMail Center uses. The native email functionality is supported by this system. Oracle Email Server has both PL/SQL and IMAP interfaces and is bundled with the Sendmail implementation of SMTP service. The OES PL/SQL APIs extend the email functionality to implement rule based notifications, account maintenance, and Oracle Text processing. The Message Store resides in an Oracle database, and is a collection of database tables and stored procedures that implements the various email specific operations. Oracle 8i Text provides search, retrieval, and viewing capabilities for text. eMail Center uses Oracle Text to retrieve keywords from inbound email.

3. Oracle Email Server Middle-tier processes:

Postman, IMAP, SMTP, IOLISTENER are some of the OES processes that are part of the middle-tier. Oracle Email Server uses Simple Mail Transfer Protocol (SMTP) for receiving and sending email and the eMC Agent Console uses Internet Message Access Protocol (IMAP) to access emails stored in the Message Store. It is important to have these processes running at all times for eMail Center functionality.

4. Oracle internet Application Server (iAS) or Web Tier:

This constitutes all the middle-tier business logic. This is used for all 'http' requests from the eMail Center components like the Self-Service Administration Console and eMail Center Agent Console.

The Java middle-tier resides on the Jserv(s) that are associated with an apache server. The middle-tier manages load and connections to the various IMAP and SMTP servers. The email accounts, folders and profiles that are currently in use are cached for improved performance. Connections and common objects (accounts,

folders, etc.) are shared among various users for scalability. Wrappers are provided on top of JMA and the above middle-tier components to expose a simplified set of APIs to the eMC Agent Console. These wrappers also wrap various PL/SQL APIs used to retrieve account data from the database and to store agent states and cache temporary messages on the database.

5. Oracle eMail Center Self-Service Administration (SSA) Console:

This console is used for creating and maintaining the eMail Center configuration. These setup screens include a simple Default Configuration screen for customers implementing the product for the first time. An integrated set of eMail Center, Marketing Encyclopedia System (MES) and One-to-one Fulfillment Administration screens are provided to enable the administrator to create email accounts, configure Classification/Routing rules, update Intents and Keywords, and publish response documents into the Marketing Encyclopedia System (MES).

6. Oracle eMail Center Agent Console:

This is the eMail Center Agent Console that is used by Agents to respond to inbound emails and compose outbound emails from eMail Center Application. The following features are available to the agents to assist with the processing of email responses:

- The Home page displays the email accounts assigned to the agent and the classifications for each of the accounts. The Inbox Summary section displays the number of emails fetched by the agent that have not yet been resolved. The Activity bin provides a summary of transactions performed by the Agent for a selected duration (day, week or since the last login). The Break bin enables the Agent to go on a break and notify the system of the reason.
- Built-in access to the MES and SMS repositories is provided through the knowledge base tab. Agents can browse through the MES categories and search both SMS and MES for response documents and solution sets.
- Customer information is presented to the agent automatically. In the event that a matching customer is not found, eMail Center provides the ability to search the customer database and select a customer to associate with the interaction.
- Every action performed by the agent using the Agent Console is logged in the customer's unified interaction history.
- The calendar tab exposes the CRM Foundation calendar functionality.

2.1.1 Oracle eMail Center's Main Components:

Oracle Email Server (OES)

This is the mail server that receives and sends the emails for eMail Center.

eMail Center Agent Console

The eMail Center Standalone Agent is an HTML application that allows agents to respond to incoming email using system generated suggested responses and to compose original outbound email messages using standard templates. Supported browsers are the current Oracle Applications supported browser, Netscape 4.7 and Internet Explorer 5.0 and 5.5.

Different from the 11.5.5 and earlier eMail Center Client, this version of eMail Center Standalone Agent does not require the Oracle Universal Work Queue as work is queued and displayed directly on the Agent Home Page which makes this a completely standalone product. This also removes the necessity for JInitiator on eMail Center as applets are not longer required.

Outbound messages, whether original or replies can be created not only by inserting or attaching suggested responses or templates, but any document in the Knowledge Base. There is a search capability that allows agents to search for documents as well as the Marketing Encyclopedia System's (MES) category structure that can be browsed. The agent can also attach document from the network or local file system using the Attachments link.

Agents using Internet Explorer can also use the rich-text editor to mark up documents with color, font changes, alignment, hyperlinks, and inline images to name a few of the options available.

eMail Center Standalone Agent also provides the ability to search for historical messages. These are either inbound messages that were replied to or deleted or outbound messages that were sent. Using the same functionality agents can also search their Inboxes.

All interactions are now recorded by eMail Center. When an agent is finished with a message, be it sending, deleting, or transferring, the interaction details (interactions, activities, media items, and media item lifecycle segments) and outcomes are recorded to Interaction History.

The JTF Calendar functionality is also included in the eMail Center Standalone Agent which allows agents to schedule reminders or lookup important dates.

eMail Self Service Administration Console

The Self-Service Administration (SSA) console provides unified setup screens to guide a customer through the implementation, configuration and administration process. These integrated eMail Center, Marketing Encyclopedia System (MES), and One to-One Fulfillment Administration screens support the setup and administration of routing and classification rules, intents, documents and queries; and enable the creation of Oracle Email Server accounts and customization of the eMail Center configuration.

eMail Center Server Process

eMail Center Server Process is a PL/SQL based program that extracts information from an email message to perform the intent, classification, routing processes, and deliver the email to the appropriate group of agents.

CRM Modules

eMail Center uses several features of the CRM products, such as the Marketing Encyclopedia System (MES), and Interaction History.

2.2 eMail Center Processing

1. Inbound email arrives at the Oracle Email Server (OES).
2. Postman process fires server-side rule to launch email processing.
3. Email processing collects data about the email and performs intent-analysis using keywords.
4. Search knowledge base for relevant response documents using the keywords extracted from the email.
5. Pre-processing hooks the email to a Customer Id using "from" address in the email header.
6. eMail Center concurrent program launches the processing.
7. Records Interaction History data.
8. Classifies the email and moves the email to the classification folder.
9. Routes the email to a group of agents based on the user-defined rules.
10. The email is made available to the agent to respond.
11. Agent responds to the email and requests next email.

MAIL Notify:

a. An incoming email is received from the Oracle Email Server (OES) SMTP process.

b. The Postman delivers it to the Account Inbox.

c. The Mail Pre-processing is launched.

MAIL Pre-Processing:

a. As part of pre-processing, the information from the email header and extended headers is retrieved and stored as email meta-data.

b. The email account is authenticated.

c. If the email account to which the email has arrived is intent-enabled, the data from the incoming email (along with the header and attachment data) is then analyzed using Oracle Text, which provides a set of keywords that are extracted from the email.

d. These keywords are used by the intent engine to analyze the email for intent. The meta-data regarding the email and top (based on the calculated

confidence score or percent probability) intents add up to the email meta-data.

e. The Header and Extended Header information is extracted from the email and added to the email meta-data.

f. An attempt is made to find the customer Id using the from-address of the email.

g. The information collected as email meta-data is then stored in the Pre Meta Data Table (MDT).

MAIL Processing:

a. eMail Center concurrent program processes each email token from the Pre Meta Data Table as part of email processing.

b. If the Customized Processing Flow flag was set for the email account that the email was addressed to, the Custom workflow is run.

c. The eMC processing flow picks up the next email token applies a classification as per user-defined rules to the email.

d. The email is moved from the Inbox folder to the classification folder.

e. The appropriate Interaction History media items and media life cycle segment (MLCS) records are created/updated to reflect interactions processing.

f. The routing engine then uses the meta-data, applies user-defined rules to route the email to a destination group.

g. The knowledge base repository is searched for related response documents.

h. The email meta-data is stored in the Post MDT table thereby making the email available to agent for processing.

AGENT Processing

When an eMail Center agent logs in, he is presented with the Home page.

1. From this page, he can either select an account and a routing classification to get a queued email or can select an account and begin working on previously fetched email.
2. When a queued email is selected it is displayed as a ready to edit Reply and the email message is moved from the email account classification folder to the agent account inbox.
3. At the same time, a new cached reply email message is created.

4. If the agent cannot answer the customer question he can transfer it to his manager or other subject matter expert using the Transfer button.
5. If the agent feels that no response is necessary, he can delete the inbound message.
    a. Note that when the agent does this, the message is not actually deleted but moved from the Agent's inbox to the master account's Deleted folder where administrators or managers can review deleted messages prior to purging them.
6. In the reply page the agent can insert or attach suggested responses generated by the backend, attach other collateral documents either from the local machine or the network, browse the MES knowledge base and add other documents, search the MES or SMS knowledge bases for other information all to create a personalized to the point response to the customer query. If the backend processing is unable to identify a customer, the agent can search the customer database to attempt to find the customer. This allows more accurate Interaction History to be recorded.
7. Finally if the agent is unable to complete the reply, he can choose to save it using the Save button.
    a. If the Save button is selected, all information pertaining to the reply is stored on the mail server and the next time the Inbound message is selected

out of the agent's inbox, the saved draft will be restored and presented to the user.

If the User chooses to Transfer, Delete, or Send the reply, he is presented with a wrap up screen that allows him to classify the interaction (4d, 5c or 6e). While all actions have default values associated with them, the agent is free to modify these to suit the situation. Once the desired wrap up values are selected, the agent can commit the action and either fetch another message to work on, or simply return to the Messages tab to choose what to work on next.

2.3 eMail Center System Requirements

Refer to MetaLink for Approximate Sizes and System Requirements for Oracle CRM Applications (Oracle eMail Center is included in the estimate). Information is available for:

- Approximate sizes of Oracle Application 11.5 installs
- What are the sizing requirements for Oracle Applications release 11i
- What are the system requirements for Oracle Applications 11.x
- System requirements for Apps 11i
- What are the requirements for Applications installation
- Oracle Application Object Library 11.x
- Application Install 11.x
- PROD install
- TEST install
- VIS install
- Disk usage of an install of Oracle Application.

2.4 Oracle eMC Hardware Requirements

Disk Space:

- Oracle DB: 24 GB
- Appltop: 24 GB
- Staging: 24 GB

- Oracle eMail Server (OES): 1 GB

Memory (Random Access Memory (RAM)

- Main Memory: 2GB
- Oracle OES Memory: 344 MB

3

Dependency Requirements and Verification

3.1 Installation and Dependency Verification

This topic group contains a list of the core products with which Oracle eMail Center integrates and a brief description or each core product.

Before installing eMail Center, you should have each of these products successfully installed:

- Oracle Email Server 5.2 Patch Set 1.
- Oracle Text 8.1.7.1.
- Oracle Marketing Encyclopedia System, 11i.AMV.E.
- Oracle CRM Foundation, 11i.JTT.A.
- CRM Business Application (e.g. Oracle TeleService) for Customer creation and maintenance.

Optional Applications:

- Oracle iSupport -- Solution Management System (SMS) component.

3.1.1 Oracle Email Server (OES)

Oracle Email Server is the core email system. The native email functionality is supported by this system. Oracle Email Server has both PL/SQL and IMAP interfaces and is bundled with the Sendmail implementation of SMTP service.

The topics in this section describe its important sub-components.

Internet Message Access Protocol (IMAP) Server

Internet Message Access Protocol (IMAP) is the Internet protocol for retrieving mail from a server. It allows mail messages to be stored and managed on the mail server.

Message Store

The Message Store resides in an Oracle database (8.1.7.x), and it is a collection of database tables and stored procedures that implement the various email specific operations. Email accounts including folders, all incoming emails, and all outgoing emails are stored here.

Simple Mail Transfer Protocol (SMTP) Server

SMTP is a transport service capable of relaying mail across environments and typically operates over TCP, port 25. SMTP does not provide any special features outside mail transport. Sendmail is an SMTP implementation that runs in the background, listening for incoming mail.

OES PL/SQL APIs

The Oracle Email Server PL/SQL APIs extend the normal email functionality to implement rule based notifications, account maintenance, and Oracle Text processing of incoming email messages. This additional functionality results in a close integration with the Oracle Email Server product.

Known Limitations

- Oracle eMail Center is tightly integrated with Oracle Email Server. Other Email Services, existing or new, must integrate with this product.
- Spam and Virus check features are not currently in Oracle Email Server release 5.2.x.

Platform Dependencies

Oracle Email Server and its components are ported to most major platforms.

Platform Dependencies:

Ported to most major platforms.

Configuration Options:

You can customize the linguistic processing module by modifying Oracle Text and Knowledge Base sections. This focuses the linguistic processor to look for more relevant information and enables you to fine-tune email processing.

3.1.2 Oracle Text

eMC uses the Oracle Text application as part of it's Intent analysis process. Oracle Text extracts a set of keywords from an incoming message and provides them to the eMC Intent engine to identify the email intent. Once the intent for the email is identified, Oracle Text searches through the knowledge base repositories to determine appropriate response documents.

Oracle Text, previously known as interMedia Text, is a component of the Oracle 8i Database. It provides a generic search, retrieval, and viewing capabilities for text. When used with eMC, Oracle Text 8.1.7 performs text searches and keyword analysis in languages supported by CRM applications. The quality of this process for a specific language is a function of not only how well the system has been "trained" and "tuned" over time by the administrator, but also the database character set and tools (such as stoplists provided by Oracle Text) used to optimize the search and retrieval of keywords.

A character set is specified when creating a database, and your choice of character set determines what languages can be processed by eMail Center and Oracle Text. Over the years, character sets have evolved to support more than a single language. These new character sets support a group of related languages, based on the encoding scheme (i.e. the same script). For example, the ISO 8859 Part 1 character set series was created to support 24 different European languages. More recently the use of an unrestricted or universal character set, such as Unicode encompasses most major scripts of the modern world. Several character sets may meet your current language requirements, but you should consider future language requirements as well. Often, unrestricted multilingual support is needed, and a universal character set such as UFT8 is recommended as the database character set.

Oracle Text provides a set of default stoplists and if a default stoplist exists for a language, it will be used to identify the words that the system ignores during the text processing. For example, the Default English stoplist contains stop words such as 'a', 'it', 'can', 'some', 'on', 'have', 'the', 'they', etc. If an incoming email contains the text "Can I have some information on the Oracle Database?", when it is processed by Oracle Text the following keywords will be extracted; 'information', 'Oracle', 'Database', and words such as 'Can' and 'some' will be excluded.

An administrator can create stoplists for additional languages and also extend the default stoplists. Please refer to the most current Oracle Text documentation for the list of default stoplists available, how to extend stoplists and other tools for improving precision of the linguistic analysis for a given language.

Known Limitations

- Only bundled with Oracle 8 and higher versions. Not available on earlier versions.
- Default Stoplists are only provided for some languages.

Platform Dependencies

Ported to most major platforms.

3.1.3 Interaction History (IH)

Interaction History is a CRM foundation component. Hence it is available to and used by all applications in the CRM suite. The Interaction History component records interactions between a customer and an agent across applications and media channels. This enables the administrator to generate and run activity reports across all media channels.

An Interaction History record is created for every incoming and outgoing email. Every Interaction must be associated with a customer. Oracle eMail Center tries to find a customer by matching the email address. If however a customer cannot be identified based on the email address, eMail Center then assigns a default customer ID to the email. This default customer ID is defined while setting the site profile options. Every action taken by the user is recorded as a separate life cycle segment related to that media item (email).

3.1.4 Knowledge Base Systems (KB)

Oracle eMail Center uses the following two repositories:

- Solution Management System (SMS)
- Marketing Encyclopedia Systems (MES)

The SMS repository is a key component of the iSupport application. It stores solution sets for the most commonly reported problems. The interface to create these solution sets and maintain them is provided in the Oracle iSupport application and not in Oracle eMail Center.

Oracle eMail Center (eMC) uses the Marketing Encyclopedia System (MES) as its document repository. MES provides the administrator with the capability to organize documents into various categories (or folders). The administrator can select the repositories he/she would like eMail Center to search for documents/solutions based on the intent of the email by selecting the appropriate

knowledge base in the site profile option settings. The email center agent is also allowed to browse through the MES categories only. But an agent can manually search for documents or solution sets stored in either the MES or SMS repository while composing an email.

3.1.5 Concurrent Manager

Concurrent Manager is a component of Oracle Application Object Library. It is responsible for scheduling and running various concurrent programs submitted by the user. It uses Distributed Concurrent Processing and can simultaneously run concurrent requests on several different server machines or CPUs. Oracle eMail Center makes use of this facility to schedule and run various email processing modules.

The concurrent program will run until the specified number of messages get processed, then will wait for the specified time interval and then restarts to elapsed. The eMail Center out-of-the-box concurrent process is set to (5 x 100 x 12). This means that 5 processes, processing 100 messages each and having a wait period of 12 minutes will process 500 messages (if available) before the next batch of concurrent processes (workers) starts.

eMail Center does not recommend any specific number of concurrent processes that can be run at the same time because this is strictly hardware dependent and the answer would be "As many as your hardware can handle..."

eMail Center uses the Oracle Applications Standard Manager to submit the following batch jobs for processing emails:

- Rebuild Help Search Index.
- Process the standalone eMail Center retry folder.
- Purge eMail Center Standalone Workflow.
- Stop eMail Center Standalone Workflow.
- eMail Center Standalone Workflow Controller.

4

Implementation Overview

4.1 Process Description (Required)

The implementation of Oracle eMail Center has been simplified and enhanced through the use of the Self Service Administration Console. Persons implementing eMC should have a working knowledge of Oracle Forms, HTML, Java, and the installation platform.

This topic group contains the following:

- A checklist of the steps to perform an eMC implementation.
- An implementation planning questionnaire that will help you determine and collect information you will need during the process.
- A worksheet for gathering the necessary information for completing the configuration module sections.

4.2 Implementation Task Sequence

In order to have a working Oracle eMail Center, we recommend that you execute the following installation task sequences, listed below, in chronological order.

The Configuration, Rules, and Business Data steps can then be revisited to incorporate any implementation specific requirements.

Installation

Step 1: Install and configure Oracle Email Server.

Step 2: Auto install CRM Applications.

Step 3: Post install steps.

Step 4: Installation Check Point

Configuration

Step 1: Create an Interaction Center Server Group.

Step 2: Create a Default Customer.

Step 3: Create user with access to the Self Service Administration Console and Monitoring Administration.

Step 4: Set Site Profiles.

Step 5: Configure eMail Center.

Step 6: Create email accounts.

Step 7: Create user accounts for eMC agents.

Step 8: Configuration Check Point.

Rules

Step 1: Create classifications and associate with accounts.

Step 2: Define resource groups.

Step 3: Create routes and associate with account and assign to appropriate resource groups.

Step 4: Rules Check Point.

Business Data

Step 1: Create intents and keywords.

Step 2: Enable intent processing via intent options.

Step 3: Create categories in MES via document option.

Step 4: Create hierarchies in MES via document option.

Step 5: Publish response documents and templates in MES via document option

Step 6: Create queries to populate merge fields.

Step 7: Associate queries and documents.

Step 8: Business Data Check Point.

The following tables depict the implementation process for eMail Center:

Table 4–1

Installation	Configuration	Rules	Business Data
Step 1: Install and Configuration Oracle Email Server (OES)	**Step 1:** Create an Interaction Center Server Group	**Step 1:** Create Classifications and Associate with Accounts	**Step 1:** Create Intents and Keywords
Step 2: Auto Install CRM Applications	**Step 2:** Create a Default Customer	**Step 2:** Define Resource (Agents) Groups	**Step 2:** Enable Intent Processing
Step 3: Post Install steps	**Step 3:** Create User with access to the Self Service Administration	**Step 3:** Create Routes and Associate with Accounts	**Step 3:** Create Categories in MES
Step 4: Check Point	**Step 4:** Set Site Profiles	**Step 4:** Check Point	**Step 4:** Create Hierarchies in MES
	Step 5: Configure eMail Center		**Step 5:** Create and Publish Documents in MES
	Step 6: Create email accounts		**Step 6:** Create Queries and Associate with Documents
	Step 7: Create user accounts for eMC agents and DBAs		**Step 7:** Check Point
	Step 8: Check Point		

Legend for Table 1-1: All steps that are underlined (e.g., **Step 1**) are required steps. The steps that are not underlined (e.g., **Step 1**) are optional.

4.2.1 Implementation Planning Questionnaire

The following questions provide a high level overview of the information necessary to successfully implement Oracle eMail Center. This is information that should be decided upon prior to beginning the implementation process.

Use the following questionnaire to gather information crucial to the implementation process:

Configuration Questions:

1. What email addresses does the business want to set up to receive email?

   You will need to define the corresponding email accounts in eMC to which inbound email will be directed. Examples could be: support_ca@company.com, info@company.com, promotions@company.com, sales@company.com, etc.

2. For each email account to be defined, which agents will be processing interactions?

3. What are the expected languages of incoming emails?

If intent processing will be required on these emails, how may different email accounts will be required?

4. What are the default outbound email header values for each account?

From address, reply-to address, etc.

> **Note:** An agent may be assigned to multiple accounts, i.e., if an agent needs to work on email interactions sent to the support account, as well as those sent to the info account.

Rules Questions:

1. What criteria will be used to classify incoming emails to be presented to agents?

Classification queues are used to group incoming messages based upon the properties and content. For example, queues can be created (on a per account basis) to group emails based on a customer's service level or agent's area of specialization.

2. How will the classification queues be mapped to email accounts?

3. How will agents be grouped for each account?

Is it sufficient to define only one group for all the agents assigned to a particular account, or does it make sense to divide the agents into groups? It would make sense to define multiple agent groups for a particular account if there will be different agents who focus on working on certain types of issues or intents for the account, so that routing rules can be set up appropriately.

4. What routing rules need to be defined?

5. Which routes are required for each emails account? What should be the destination groups for each route? What are the default destination groups?

Business Data Questions:

1. For each account, what set of intents need to be defined?

   These intents are essentially for the buckets that describe the purpose of incoming emails for a particular account. Intents can be used to select the appropriate responses from the knowledge base and also used to determine the classification or routing destination of the incoming email. The subject matter for each intent should be mutually exclusive and collectively exhaustive for emails expected to be received in that account.

2. What are good sample emails for each intent?

   - Does the customer already have sample data?
   - Do you need to create test cases for intent analysis?
   - Do the sample emails completely represent the different subject matter anticipated in emails belonging to the intent?

   Note: The quality of the sample emails messages directly impacts the effectiveness of the intent functionality. Sample emails and sample responses should only contain text that is directly relevant to the subject matter for that intent (the text can be regular sentences as opposed to a list of keywords, but should not contain text such as 'Thank you in advance for your prompt attention to this matter,' or other extraneous text).

3. What are good sample response messages for each intent?

   - Does the customer already have sample data?
   - Do you need to create sample responses for intents?
   - Do the samples completely represent the different types of responses for the intent?

   Ideally, there should be at least one sample response for each sample email. As is the case with sample emails, the quality of the sample responses directly impacts the effectiveness of the response selection functionality and should only contain text that is directly relevant to the response subject matter.

4. What documents need to be uploaded into the knowledge bases?

Miscellaneous Question:

What custom workflows need to be developed?

4.2.2 Implementation Worksheet

Use the following worksheet to gather all the necessary information for completing the detailed tasks in the Create Default Configuration, Create a Custom Configurations, and Create Email Accounts sections.

eMC Default Configuration Worksheet

eMail Center Server Group Name: _____

Oracle Email Server

IP Address:_____

Host Name:_____

Database Listener Port Number:_____

Database SID:_____

Database Global Name:_____

OO User Password:_____

Link to Application Database:_____

Email Account

Fully Qualified Domain Name:_____

Oracle Email Server Node Name:_____

Oracle Email Server OO Admin Password:_____

eMC Custom Configuration Worksheet

eMC Server Group

Group Name:_____

Group Description:_____

Database Server

Database Name:_____

Host Name:_____

Port:_____

Protocol (default is TCP):_____

Database SID:_____

Database Global Name:_____

Database Description:_____

Link to Application Database:_____

Node Name:_____

Admin User:_____

Admin Password:_____

RT Availability:_____

Group Server:_____

Database Links

Database Name:_____

Database Name:_____

Database Global Name:_____

Database Global Name:_____

OO User:_____

OO Password:_____

OO User:_____

OO Password:_____

Email Servers

Email Server Name:_____

DNS Name:_____

IP Address:_____

Port (For example:143 for IMAP, 147 for SMTP):_____

RT Availability:_____

Group Server:_____

Server Type (IMAP and SMTP):_____

Email Accounts Worksheet

Email Address

Name:_____

Email Account:_____

Domain:_____

Profile:_____

Email Database Server:_____

Language:_____

Reply To:_____

Sender Name:_____

Enable Customized Processing Flow (Yes or No):_____

5

Implementation Tasks and Verification

5.1 Installation Module

To install eMC the following steps must be completed:

- Installing and Configuring Oracle Email Server (OES)
- Auto Installation Process (Rapid Install Process)
- Post Installation Steps

Readme

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.1.1 Installing and Configuring Oracle Email Server (OES)

Use this procedure to install and configure Oracle Email Server. Oracle Email Server was formerly known as Oracle Internet Messaging (IM).

Login

eMC admin

Responsibility

Admin

Prerequisites

None.

Steps

1. Install OES 5.2. Follow the instructions provided in the *Oracle Email Server Installation Guide* (Installing Oracle Email Server section).
2. In the post-install Email Server configuration, select **NO** for LDAP install. For more information on this step, refer to the *Oracle Email Server Installation Guide* (Configuring Oracle Email Server section).

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.1.2 Auto Installation Process (Rapid Install Process)

The Auto Installation Process installs the schema and the core functions (Foundation Components) for Oracle applications.

Note: The Vision Platform parameters are incorrect for new installs. The Vision database contains machine specific information that is not correct for your platform. The site specific values can either be changed manually through Self Service Administration (SSA) Console Custom Configuration screens, or they can be erased as described in the IEM Readme/HTML files, and the SSA Default Configuration used to create a new configuration.

The following steps need to be completed for the Auto Installation Process:

Steps

1. Choose the desired environment for installation, such as production, test, or demonstration.
2. Select the products you need to install.
3. Select the location of the top-level directories.
4. Select the name of the configuration file.
5. Complete the steps necessary for the products you selected to install.

References for Rapid Install

Installing Oracle Applications documentation.

Refer to the following sections: How Rapid Install Works in the Installation Overview and Running Rapid Install in the Starting Your Installation.

5.1.3 Post Installation Steps

The Post Installation steps configure the Oracle eMail Server (OES), so it communicates with eMC.

Login

eMC Admin

Responsibility

Admin

Steps

1. Create a sqlnet tnsnames entry on the Oracle Email Server machine to point to the Oracle Applications Instance. (If installed on an instance separate from Oracle Applications Instance.)
2. Create a Database Link to the CRM instance from the Oracle Email Server instance. You need the following:
   - Password for the Oracle Applications APPS schema.
   - Password for the Oracle Email Server OO schema.

Use SQLPLUS to login to OES schema as user **OO** (using the **OO** password entered during Oracle Email Server installation) and use the following statement to create the database link:

CREATE DATABASE LINK <link name> CONNECT TO <APPS username> IDENTIFIED BY <APPS password> USING <tns / service name>;

Note: The name of the above mentioned database link <link name> is used later to configure other eMC components.

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.1.4 Installation Checkpoint: Verification

At this point all relevant applications should have been installed and the Oracle Email Server configured to communicate with eMC. Complete the following steps prior to performing the Configuration Module steps, in order to confirm that the Installation steps were successful.

1. Access CRM application via both the Forms and HTML login screens.
2. Start the OES processes.
3. Bring up IM Admin and search for sample OES email accounts.
4. Access sample email/user account Inbox from any Mail Client.
5. Send emails to sample email/user account.
6. Bring up IM Admin and display for sample OES email accounts.
7. Execute a SQL statement to test the Database Link, for example, "select instance_name from v$instance@<dblinkname>"
8. Run any concurrent request.
9. Confirm the following:
   - CRM applications have been successfully installed and can be accessed.
   - No errors in OES log files.
   - Can view inbound email in OES.
   - Database Link is functional.
   - Successful completion of concurrent request.

5.2 Configuration Module

To configure eMC the following steps must be completed:

- Create a Interaction Center Server Group.
- Create a Default Customer.

- Create user with access to the Self Service Administration Console
- Set Site Profiles.
- Configure eMail Center.
- Create email accounts.
- Create user accounts for eMC agents and Monitoring Administration.

5.2.1 Self-Service Administration (SSA) Module

SSA is a set of common screens for implementing, configuring, and administering eMail Center from a single login, which enables the setup and management of eMail Center with minimal training.

SSA is user friendly and chronologically formatted for simple navigation and step-by-step set up.

Key features and benefits of Self Service Administration Setup screens include the following:

- Overall Ease of Use.
- Integration with Marketing Encyclopedia System (MES) Administration.
- Integration with One-to-One Fulfillment Administration.
- Auto configuration of eMail Center from a single input screen.
- Graphical User Interface for defining classification and routing rules.
- Simplified email account creation.

> **Warning:** For all new eMC installation, starting with and including version 11.5.6, you must use the Self Service Administration Console. If you are upgrading from an earlier version to 11.5.6, your existing configuration will automatically be migrated. If further changes to the configuration are required, you can use the eMC Custom Configuration option.

The following steps should be performed prior to using the Self Service Administration:

1. Create a Default Interaction Center Server Group.
2. Create a Default Customer.

5.2.2 Creating a Default Interaction Center Server Group

Oracle eMC uses the Resource Manager application to define agents and manage their assignment to email accounts. The Resource Manager application requires an Interaction Center Server Group to be selected for creating and maintaining resources (agents); therefore, Oracle eMC requires a default Interaction Center Server Group.

Login

eMC Admin

Responsibility

Call Center HTML Administration

Prerequisites

You must have the Call Center HTML Administration responsibility assigned to the user.

Steps

1. From the HTML application login screen, log in using the default system administrator user name and password.
2. Click on the **Profile** icon.

The General Preferences screen is displayed.

3. From the drop down list for Current Responsibility, select **Call Center HTML Administration**.
4. Click **Update.**

   The CTI Middleware screen appears.
5. Click **ICSM** tab**.**

   The Server Group List screen appears.
6. Click **Create.**
7. Enter the following fields:

Server Group Name

Location, Description and Super Group are optional

Default Node - For email only installations leave this field blank. For email and telephony implementations follow the ICSM Setup instructions and then select the Default Node created.

Server Configuration - For email only installations select 'None'. For email and telephony implementations select the appropriate Server Configuration for your telephony installation.

8. Click **Submit.**

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.2.3 Creating a Default Customer

All interactions have to be associated with a valid customer. The interactions for incoming emails from customers not defined in the system, will be associated with a Default Customer. For information on creating a customer, *Refer to the Concepts and Procedures guide for relevant CRM Business Applications.*

Note: When the customer has been created, a party (or customer) number will be assigned. Write this party number down for future reference. Perform the SQL SELECT statement to determine the PARTY_ID value for their party number. The Party ID value will be used when setting the eMail Center Profile options.

5.2.4 Creating User Accounts for Self Service Administration

Oracle eMail Center ships with three default responsibilities. The eMail Center Self Service Administrator responsibility enables the user to configure eMC via the Self Service Administration console. The process of setting up users with this responsibility consists of several steps:

1. Creating an employee (forms application).
2. Creating an application user and assigning user responsibilities (forms application).
3. Creating CRM Resources (forms application).

4. Assigning a JTF Role (HTML Application).

5.2.4.1 Creating Employees with HRMS

Use this procedure to create employees with the Oracle Human Resources Management System (HRMS).

Login

Sys Admin (Forms)

Responsibility

US HRMS Manager.

Prerequisites

To perform the following steps, you must have Oracle HRMS installed and configured. If you do not have Oracle Human Resources Management System installed, you will need to create the employee using the Oracle Resource Manager application.

Steps

1. From the Forms application login screen, login using the default system administrator user name and password.
2. From the list of application responsibilities, select US HRMS Manager.

The Navigator-HRMS Manager screen appears, displaying a list of functions.

3. From the list of functions, double click **People**.
4. Double click **Enter** and **Maintain**.

The Find Person screen appears.

5. In the Find Person screen, click **New**.

The People form appears.

6. On the form, enter all information in required fields, for example:

Last - (name)

First - (name)

Title - (select from the drop-down list)

Type - (select from the drop-down field)

Employee Number

Birth Date

Social Security Number (for US version only)

7. Save the record to complete the process of creating an employee.

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

References

For more information and detailed steps on creating employees, refer to the Oracle HRMS/Payroll documentation.

5.2.4.2 Creating Application Users and Assigning Responsibilities

A user must be created for each person (employee). This user can be assigned one or more responsibilities. Use this procedure to create application users, link the user to an employee, and assign responsibilities.

Login

Sys Admin

Responsibility

eMail Center Self Service Setup

Prerequisites

None.

Steps

1. Select *File* and switch responsibility to System Administrator.
2. In the Functions tab, navigate to *Security* > *User* > *Define*.
3. Enter the User Name and Password

(The password will need to be entered twice for validation).

4. In the Person field, select the name of the person that you created in HRMS.

5. Select the **eMail Center Self Service Setup** Responsibility.
6. Click **Save**.
7. Repeat steps 1 through 6 for each user.

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.2.4.3 Creating CRM Resources

The steps should be performed to import CRM Resources for users and assign the appropriate roles.

Login

Sys Admin

Responsibility

CRM Resource Manager

Prerequisites

None.

Steps

1. From the Navigator System Administrator screen, click **File**, then switch responsibility.
2. Select the CRM Resource Manager responsibility.

A screen appears, displaying a list of functions.

3. Double click **Maintain Resources**.
4. Double click **Import Resources**.

The Selection Criteria screen appears.

5. From the Resource Category field, select Employee.
6. From the Name field, select the new employee's name.
7. Click **Search**.

The Search Results list appears, displaying a row of data with Category set to Employee and Name set to the new employee's name.

8. Click **Create Resource**.

The Default Values screen appears.

9. Click **OK**.

The Selected Resource screen appears.

10. In the Selected Resources screen, click **Save Resource**.

11. Click **Details**.

The Resource screen appears.

12. For users with the eMail Center Self Service Setup Responsibility assigned:

Select Marketing Encyclopedia from the drop-down list for Role Type and select MES Administrator from the drop-down list for Roles.

13. Accept the default values on the remaining tabs.

14. From the File menu, click **Save** to save the resource.

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.2.4.4 Assigning a JTF_FM_ADMIN Role

This role only needs to be assigned to the user with the "eMC Self Service Setup" responsibility. Assigning this role enables the user to use the Query Sub Tab (in Self Service Administration console) to create queries for populating merge fields in documents

Login

Sys Admin HTML

Responsibility

US HRMS Manager

Prerequisites

None.

Steps

1. From the HTML application login screen, log in using the System Administrator user name and password.
2. Select User Name from the Find Users list of values.
3. Enter a value for the user name to search.
4. Click on **Go**.

The list of Users accounts matching the selection criteria is displayed.

5. Click on the appropriate hyperlinked in the User Name column.

The User Details screen is displayed

6. Click on the **Roles** button.

The User-Role mapping screen is displayed.

7. Select JTF_FM_ADMIN from the list of Available Roles.
8. Click on the **>** button.
9. Click on **Update**.

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.2.5 Setting Site Profile

Prior to configuring your eMC, you must set the profile options for suggested response Knowledge Base, default customer id, and default Interaction Center Server Group.

The Profile screen allows you to set eMail Center Site Profile options for the following:

- Suggested Response Knowledge Base Search (e.g., All, MES, or SMS).This option selects the repositories that will be searched for a suggest response, as part of the intent processing. The Default Setting is *All*.

- Default Customer ID. Enter the party or customer id for the default customer, created above. (Refer to the Creating a Default Customer section of this document.)
- Default Interaction Center Server Group. Select the default Interaction Center Server Group from the drop down list.

Login

eMC Self Service Administrator (HTML)

Responsibility

eMail Center Self Service Setup responsibility, *MES Administrator*, and the *JTF_FM_Admin*.

Prerequisites

You must have the *eMail Center Self Service Setup* responsibility, *MES Administrator* resource role, and the *JTF_FM_Admin* role assigned to a user.

Steps

1. From the HTML application login screen, log in using the eMC Self Service Administrator user name and password.
2. Click the **Profile** icon.

The General Preferences screen is displayed.

3. Click on the **eMail Center** menu option.

The eMail Center Site Profile Options screen is displayed.

4. Enter a value for each of the profile options displayed.
5. Click **Update.**

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.2.6 Configuring eMail Center

There are two options for configuring the eMail Center:

- Option 1: Create a Default Configuration
- Option 2: Create a Custom Configuration

5.2.6.1 Creating a Default Configuration

For new installations, it is recommended that you use the eMC Default Configuration. This configuration can be customized using the eMC Custom Configuration. The eMC Default Configuration will generate a server group, define the Oracle Email Server (OES) database, create two database links to the OES database, define the IMAP and SMTP servers, and create two email accounts (intent and test).

Once the Default Configuration has been executed or an eMail Center Custom Configuration set up, it will not be possible to access this screen. To view or change a configuration, use eMC Custom Configuration from the Administration sub tab menu.

Removing a configuration (e.g., all server groups, database servers, database links, and email server entries) will enable access to the eMC Default Configuration screen.

Assumptions: The eMC default configuration screen is the simplest option for configuring eMC. The following assumptions are made when generating the Default Configuration:

- OES database, protocol, IMAP, and SMTP processes are running on the same machine.
- OES install is set to Custom -- ensure that the setting is not Default.
- The default protocol setting is TCP.
- RT availability is set to Yes.
- Port number 143 must be assigned to the IMAP server.
- Port number 25 must be assigned to the SMTP server.
- The database server name will be automatically assigned to the same value as entered in the database SID entry field.
- Two accounts will be generated under the domain which was entered in the domain name field of the eMC Default Configuration screen and will be assigned a language setting of English.

Login

eMail Center Self Service Administrator

Responsibility

eMail Center Self Service Setup, MES Administrator, and JTF_FM_Admin.

Prerequisites

You must have the *eMail Center Self Service Setup* responsibility, *MES Administrator* resource role, and the *JTF_FM_Admin* role assigned to a user.

Default Configuration Field Descriptions

eMail Center Server Group

Name: The name of the eMail Center Server Group that you wish to create. This should be a unique name. This server group contains your SMTP and IMAP servers.

Oracle Email Server

IP Address: The IP address for OES.

Host Name: The machine name of the machine on which the OES database is running.

Database Listener Port Number: The SQL*Net port of the OES database.

Database SID: The standard system identification number for the database.

Database Global Name: The GLOBAL_NAME of the OES database. This value can be obtained from the GLOBAL_NAME table.

OO User Password: The password that was specified during your OES configuration process for the OO user.

Link to Application Database: The name of the database link that was created during your OES installation and configuration. This is the database link from your OES database to your CRM applications database.

Email Account

Fully Qualified Domain Name: The OES domain name that you wish to use for eMail Center. This must be the fully qualified domain name that you created during your OES configuration process, for example: <company_name>.com.

Oracle Email Server Node Name: The name of the node that you created during your OES configuration process. The word node refers to an OES database instance.

Oracle Email Server OO Admin Password: The password that was specified during your OES configuration process for the OO Admin user.

Steps

1. From the HTML application login screen, log in using the eMC Self Service Administrator user name and password.
2. Click on **Setup.**

The eMail Center Configuration screen is displayed.

All fields are mandatory, and must be completed to ensure successful creation of the default configuration.

3. Enter values in all fields displayed.
4. Click **Create**. (Clicking **Clear**, removes all data in their respective fields.)

The following message is displayed:

eMail Center Configuration setup has been completed. To view or change the configuration, please go to eMC Configuration under Administration.

> **Caution:** Before clicking Create, be certain that all the fields contain the correct data. Once you click Create, you cannot access the Default Configuration screen to make changes; you must use the Custom Configuration menu option to make changes to the configuration.

If you attempt to re-enter the Default Configuration screen after creating a configuration, you will receive a message similar to this:

eMail Center configuration has already been set up. To view or change the configuration, use Custom Configuration under Administration.

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.2.7 Creating a Custom Configuration

The Custom Configuration can be used for updating the Default Configuration data or creating a custom configuration.

Custom Configuration has four sub menu items:

- Server Group
- Database Server
- Database Link
- Email Servers

Some of the columns in each of the sub menu's screens contain hyper-links. The hyper-links enable you to access each sub menu's respective details screen.

Login

eMail Center Self Service Administrator

Responsibility

eMail Center Self Service Setup, MES Administrator, and JTF_FM_Admin.

Prerequisites

You must have the *eMail Center Self Service Setup* responsibility, *MES Administrator* resource role, and the *JTF_FM_Admin* role assigned to a user.Setting up eMC Site Profiles.

Steps

1. From the HTML application login screen, log in using the eMC Self Service Administrator user name and password.
2. Click on **Administration**.

The Server Groups screen is displayed.

In the following sections, you can either create a new entry or update and existing one. To create a new entry, click on the **Create** button, and enter the values for the required fields, and click **Create** again.

To update an existing entry, click on the entry name provided as a hyper-link, update the required fields, and click **Update**.

To remove an existing entry, click on the check box in the Remove column, and click on **Update**.

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.2.7.1 Server Groups

The eMC Server group is used to associate the OES processes (IMAP and SMTP) and email accounts with the server group.

You can use the Server Group screen to remove, create, or update your Server Group and Database Server. The data in the Group Name and Database Server columns contain hyper-links. By clicking on them, you will access their respective detail's screen.

Server Group Field Descriptions

Group Name: This is a unique name that identifies the server group purpose for your business. The eMail Center server group that is created using this name is the server group that contains your SMTP and IMAP servers.

Group Description: Any free-form text that you want to use to describe the server group that you are creating.

5.2.7.2 Database Servers

You can use the Database Server Screen to remove, update, or create your Database Name, Global Name, Host Name, Port, Protocol, Database SID, link to application database, and RT Availability. The Database Name is hyper-linked. By clicking on the hyper-link, you will access the details page for the Database Name. Fill in the fields.

Database Server Field Descriptions

Database Name: Any unique name that you want to assign to the OES database instance. This name is only used in eMC.

Host Name: The name of the machine on which the OES database is running.

Port: The SQL*Net port of the OES database.

Protocol: The protocol for network communication, for example, TCP.

Database SID: The standard system identifier for the database (Oracle SID).

Database Global Name: The GLOBAL_NAME of the OES database. This value can be obtained from the GLOBAL_NAME table.

Database Description: Any free-form text that you want to use to describe the database.

Link to Application Database: The name of the database link that was created during your OES installation and configuration. This is the database link from your OES database to your CRM applications database.

Node Name: The name of the node that you created during your OES configuration process. The word node refers to an OES database instance.

Admin User: This name of the administrator user. Typically this would be the OO Admin user that was created during the OES installation and configuration process.

Admin Password: Password for the OO Admin user that was specified during the OES configuration process.

RT Availability: This field enables internal tracking of e-mail processing. This field should be set to the default value of Yes.

Group Server: The eMail Center server group to which this server is to be added.

5.2.7.3 Database Links

You can use the Database Link screen to remove your database link or create a link by entering the Database Name, Database Global Name, and User (OO or ORAOFFICE, and password). The Database Link screen contains no hyper-links. Use this screen to create two Database Links; one for the OO user, and the other for the ORAOFFICE user.

Database Link Field Description

Link Name: The unique name given to the database link.

Database SID: The standard system identifier for the database (Oracle SID).

Host Name: The name of the machine on which the database is running.

Port: The port number on which the database is running.

Database Global Name: The name that is used as the database global name. This value can be retrieved from the GLOBAL_NAME database names table. It is typically a combination of the database SID and the Domain name.

User: These are the OO and ORAOFFICE users.

Database Link Create screen

Database Name: Unique name assigned to the OES database instance.

Database Global Name: The name that is used as the database global name. This value can be retrieved from the GLOBAL_NAME database names table. It is typically a combination of the database SID and the Domain name.

User: These are the OO and ORAOFFICE users.

Password: These are the passwords for the OO and ORAOFFICE users.

5.2.7.4 Email Servers

You can use the Email Server screen to remove, update, or create the Server Name, DNS Name, IP Address, Port, Server Type, and RT Availability. The Server Name is hyper-linked. By clicking on the hyper-link, you will access the Server Name details page. At least two Email Servers should be created; one of server type IMAP, and the other SMTP.

Email Servers Field Descriptions

Server Name: The unique name that you want to assign to each SMTP or IMAP process.

DNS Name: This uniquely identifies a machine on a network.

IP Address: The IP address of the machine on which the process is running.

Port: The port on which the specified email server is running. For example, IMAP would typically run on 143, and SMTP on 25.

RT Availability: The run time availability from the drop down list. This field enables internal tracking of e-mail processing. This field should be set to the default value of Yes

Group Server: The eMail Center server group to which this server is to be added.

Server Type: The type of process (IMAP or SMTP).

5.2.8 Creating Email Accounts

The Account Screen is used to create and maintain email accounts. This will automatically create the account on the OES.

Caution: Ensure the correct Default Interaction Center Server Group has been selected in the eMC Site Profile option screen, because all email accounts created will be associated with this Default Interaction Server Group.

Login

eMail Center Self Service Administrator

Responsibility

eMail Center Self Service Setup

Prerequisites

The domain name must have been created using the Oracle Email Server (OES) admin utility.

Steps

1. From the HTML application login screen, log in using the eMC Self Service Administrator user name and password.
2. Click the **Administration** sub tab.

You will see the menu items and the Server Group screen.

3. Click on the **Account** sub menu item.

You will see the Account screen. You can create a new entry or update an existing one:

- To create a new entry, click on the **Create** button, and enter the values for the required fields, and click **Create** again.
- To update an existing entry, click on the entry name provided as a hyper-link, update the required fields, and click **Update**.
- To remove an existing entry, click on the check box in the Remove column, and click on **Update**.

You can use the Account screen to remove, update or create the email account name, domain, profile, OES database server, language, reply-to, sender name, and enable or disable the customized processing flow.

The Email Account is hyper-linked. By clicking on the hyper-link, you will access the Account Details page.

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

Email Accounts Field Descriptions

Email Address

Name: This is a unique name that identifies the account purpose for your business. This is a descriptive field used as the internal eMC account name.

Email Account: The email account name, e.g. support.

Domain: The domain name for the email account (e.g. emailcenter.com or emc.com). No validation is performed on the value input, therefore ensure that the valid OES domain name used for eMC email processing is used.

Profile: Description of the Email Account.

Email Database Server: The Database Server (OES) that will be used for the eMC processing.

Language: Language of the incoming emails being sent to this account. This is used to tie the email account being defined to a specific language for Intent Processing. From version 11.5.6 eMail Center supports Intent processing in multiple languages and this is accomplished using the assumption that an email account receives emails of same language.

Reply To: A valid email account name (e.g. support@oracle.com) to which you wish to have 'reply' email messages sent to in response to an outgoing email sent from this account.

Sender Name: Default name representing the sender of emails from this account.

Enable Customized Processing Flow: eMail Center ships with default workflow called the 'Mail Pre-processing' workflow, which was also provided with eMC pre 11.5.6 versions. If you have implemented any customizations to this workflow OR you are planning to implement any customizations to the out-of-the-box eMC application, you can force the email processing to invoke your customizations by enabling this field.

Note: If you have not used and/or implemented any customized mail pre-processing workflows, we recommend that you disable this to avoid extra processing time. The customized processing flow is not available for the intent account.

When an email account is deleted, it will be removed only in eMC.

To delete the account from the Oracle Email Server, refer to the *Oracle Email Server* document.

5.2.9 Creating User Accounts for Agents and Monitoring Administrators

Oracle eMail Center ships with three default responsibilities:

- The eMail Center Self Service Setup responsibility enables the user to configure eMC via the SSA console. Refer to section - Create User Accounts for Self Service Administration.
- The eMail Center Standalone Monitoring Administration responsibility enables the user to submit and monitor eMC related concurrent programs.
- The eMail Center Standalone Agent responsibility enables the user to respond to incoming emails and compose new emails via the eMC Agent Console.

The process of setting up users with each of these responsibilities consists of several steps:

1. Creating an employee (forms application).
2. Creating an application user and assigning user responsibilities (forms application).
3. Creating CRM Resources (forms application).

Table 1-2 depicts the three default responsibilities and indicates their required steps, which is displayed as an ex (X):

Table 5–1

Responsibility	Step 1	Step 2	Step 3
eMC Standalone Monitoring Administration	X	X	
eMC Standalone Agent	X	X	X

5.2.9.1 Creating Employees with HRMS

Use this procedure to create employees with the Oracle Human Resources Management System (HRMS).

Login

Default System Administrator

Responsibility

US HRMS Manager

Prerequisites

To perform the following steps, you must have Oracle HRMS installed and configured. If you do not have Oracle Human Resources Management System installed, you will need to create the employee using the Oracle Resource Manager application.

Steps

1. From the Forms application login screen, login using the default system administrator user name and password.
2. From the list of application responsibilities, select *US HRMS Manager*.

The Navigator-HRMS Manager screen appears, displaying a list of functions.

3. Enter the user name and password (The password will need to be entered twice for validation.)
4. Double-click **Enter and Maintain**.

The *Find Person* screen appears.

5. Select the eMC Standalone Monitoring Administration and/or the eMC Standalone Agent responsibility.
6. On the form, enter all information in required fields, for example:

Last - (name)

First - (name)

Title - (select from the drop-down list)

Type - (select from the drop-down field)

Employee Number

Birth Date

Social Security Number (for US version only)

Repeat steps 1-6 for each user being created.

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

References

For more information and detailed steps on creating employees, refer to the Oracle HRMS/Payroll documentation.

5.2.9.2 Creating an Application User and Assigning Responsibility

A user must be created for each person (employee). This user can be assigned one or more responsibilities. Use this procedure to create application users, link the user to an employee, and assign responsibilities.

Login

System Administrator

Responsibility

System Administrator

Prerequisites

None.

Steps

1. Select *File* and switch responsibility to *System Administrator*.
2. In the *Functions* tab, navigate to *Security* > *User* > *Define*.
3. Enter the *User Name* and *Password*.
4. In the *Person* field, select the name of the person that you created in HRMS.
5. Select the appropriate eMail Center Responsibility or Responsibilities.
6. Click **Save**.

7. Repeat steps 1 through 6 for each user.

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.2.9.3 Creating CRM Resources

The steps should be performed to import CRM Resources for users and assign the appropriate roles.

Login

System Administrator

Responsibility

CRM Resource Manager

Prerequisites

None

Steps

1. From the Navigator System Administrator screen, click **File**, then switch responsibility.
2. Select the *CRM Resource Manager* responsibility.

A screen appears, displaying a list of functions.

3. Double-click **Maintain Resources**.
4. Double-click **Import Resources**.

The Selection Criteria screen appears.

5. From the *Resource Category* field, select *Employee*.
6. From the *Name* field, select the new employee's name.
7. Click **Search**.

The Search Results list appears, displaying a row of data with Category set to Employee and Name set to the new employee's name.

8. Click **Create Resource**.

The Default Values screen appears.

9. Click **OK**.

The Selected Resource screen appears.

10. In the *Selected Resources* screen, click **Save Resource**.

11. Click **Details**.

The Resource Screen appears.

For users with the eMail Center Standalone Agent Responsibility assigned:

Select *iCenter* from the drop-down list for *Role Type* and select *eMail Center Agent* from the drop-down list for Roles.

In the Interaction Center tab, from the drop-down list in the Interaction Center field, select the Default Interaction Center Server Group that you created previously. Continuing in the Interaction Center tab, Email Parameters area, from the drop-down list in the Email Account field, select the desired email account name, which this resource will be assigned. Select "Default" from the drop-down list for the Parameter field and click the Value field to select the default value (IEM_ DEFAULT_VALUE).

For users with the eMail Center Self Service Setup Responsibility assigned:

Select *Marketing Encyclopedia* from the drop-down list for *Role Type* and select *MES Administrator* from the drop-down list for Roles.

12. Accept the default values on the remaining tabs.

13. From the *File* menu, click **Save** to save the resource.

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.2.10 Configuration Checkpoint: Verification

At this point a basic eMC configuration, multiple of email accounts and one or more user accounts created. Complete the following steps prior to performing the Rules Module steps, in order to confirm that the Configuration steps were successful.

1. Disable Intent Processing

By default, intent processing is enabled for all accounts. However, at this point, we recommend you test your configuration with the intent processing disabled. If you require intent processing as part of your implementation, a later step will allow you to enable the Intent Processing. To disable intent processing, perform the following:

a. From the HTML application login screen, log in using the eMC Self Service Administrator user name and password.

b. Click on **Administration**.

c. Click on **Intent.**

d. Click on **Option.**

e. Uncheck the Intent Enabled box for all accounts.

f. Click on **Update.**

2. From the forms application login screen, login as eMC Standalone Monitoring Administration User.

3. Submit the concurrent program request to run *Email Center Standalone Workflow Controller*.

Submitting request to run eMC Standalone Workflow Controller Program:

a. From the Forms application login screen, login using the default system administrator user name and password.

b. From the list of application responsibilities, select eMail Center Standalone Monitoring Administration.

The Navigator-eMail Center Standalone Monitoring Administration screen appears, displaying a list of functions.

c. c. From the list of functions, double-click Standalone eMail Center DBA.

d. Double click **Requests**.

e. Double click **Run**.

The Submit a New Request box appears.

f. Select the Single Request option.

g. Click **OK**.

The Submit Request screen appears.

h. Click on the Drop down list of the Name field.

i. Select eMail Center Standalone Workflow Controller.

j. Click **OK** to accept Default Parameters or enter the relevant Parameters.

For example:

- Time Between Worker Submission (minutes) 5.
- Number of Workers 5.
- Number of Messages per Worker 100.
- Schedule Retry Process No.
- Retry Process - Hour (0-23) 0.
- Retry Process - Minutes (0-59) 0.

k. Click **Submit.**

NOTE: There are 4 other concurrent programs also used for eMail Center:

- Rebuild Help Search Index
- Process the eMail Center retry folder
- Purge eMail Center Standalone Workflow
- Stop eMail Center Standalone Workflow

4. Send a sample email to one or more email accounts created in the SSA console.
5. From the HTML application login screen, login as the eMail Center Standalone Agent.
6. Get Message and Respond to Email.
7. Confirm the following:
   - No errors in Concurrent process log files for eMC.
   - No emails in the OES Retry/Admin folders.
   - Successful access to eMC Agent Console.
   - Email counts visible in Home Page
   - Able to Get Messages and respond to an email
   - Customer search successful
   - Receipt of sent email

5.3 Rules Module

This section covers the steps required to setup the following:

- Classification Rules
- Resource (Agent) Groups
- Route Rules

5.3.1 Creating Classifications and Associating with Accounts

There are two steps to creating a classification:

Step 1: Creating Classifications.

Step 2: Associating Classifications with Accounts.

5.3.1.1 Creating Classifications

Classifications are user-defined categories or queues that emails are placed in depending upon their properties and content. For example, classifications could be used to define various service levels, distinguish between customers, and etc.

This classification can also be used by the routing engine as one of the criteria upon which an email is delivered to a group of agents.

Login

eMC Self Service Administrator

Responsibility

Administrator

Prerequisites

None.

Steps

1. From the HTML application login screen, log in using the eMC Self Service Administrator user name and password.
2. Click on **Administration**.
3. Click on **Classification.**

The Classifications screen is displayed.

4. Click on **Create.**

The Create Classification screen is displayed.

5. Enter the Classification Name and Description.
6. Select the Rule Chaining operator from the drop down list.

   For any classification, all rules can be chained using either the AND or the OR operators, but not both.

7. Enter one or more rules by selecting a Key and the corresponding Operator from the drop down list.
8. Enter a value.

A date or time picker is provided if the key selected is of the type date or time.

9. Click on **Create.**

To update an existing Classification, click on the **Classification Name**, which is provided as a hyper-link. The Classification Details screen will be displayed, allowing you to update the description, the rule chaining operator, and the rules.

To remove a classification, click on a box under the Remove column, and click, **Update.** While removing a classification, the following validation checks are performed:

- The queue for that classification should be empty.
- Emails for that classification should not be open (read but not responded to) in any agent's inbox.

If the above are not true, the following message is displayed:

"The classification cannot be removed as there are emails in queue."

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.3.1.2 Associating Classifications with Accounts

One or more classifications can be associated to an email account, in order for incoming emails addressed to that account to be assigned to the respective queue.

The Account Association screen enables Classifications to be associated with an email account. This account association must be enabled in order for a classification to be executed. Classifications that are not enabled will not be executed.

Classification priorities are used to determine the order in which each Classification and its rules are executed. The priority of each Classification is unique; the priority can be changed; and, in doing so, it will affect the values of other classification priorities. By default, newly defined classifications are assigned the lowest priority among the existing classifications.

Login

eMC Self Service Administrator

Responsibility

Administrator

Prerequisites

None.

Steps

1. From the HTML application login screen, log in using the eMC Self Service Administrator user name and password.
2. Click on **Administration**.
3. Click on the menu item called, **Classification.**
4. Click on **Account Association.**

The Account Association screen for classifications is displayed. This screen will also be displayed following the creation of a new classification.

5. Select an email account from the drop down list, and click **Go.**

A prioritized list of classifications previously associated with this account are displayed in a tabular format.

6. Select Classification Name and Priority from the drop down list.

The Enabled flag is checked by default.

7. Click on **Update.**

Note: A folder bearing the classification name will be created under that account on the Oracle Email Server.

To remove a classification account association, click on a check box under the Remove column, and click, **Update**.

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.3.2 Defining Resource (Agent) Groups

eMC routes emails to a group of agents known as a resource group. The resource groups are used as the destination and default destination groups in the Route Account Association screen.

Login

System Administrator

Responsibility

CRM Resource Manager

Prerequisites

None.

Steps

1. From the *Navigator System Administrator* screen, click **File** and access the *Switch Responsibility*.
2. Select the *CRM Resource Manager* responsibility.

A screen displaying a list of functions appears.

3. Double click **Maintain Resource**.
4. Double click **Groups**.

The Define Groups window appears.

5. In the *Name* field, enter a unique descriptive name of the group.
6. In the *Active Dates* area, select or enter the *Start Date*.
7. To assign agents exclusively to this group, check the *Exclusive Flag* box. (This means the agent may not be a member of any other group.)
8. Click the **Members** tab.
9. In the *Category* field, select *Employee* from the list of values.
10. In the *Number* field, select the resource number of the appropriate agent. (You can assign as many group members as you want.) The Name and Operating Unit fields are populated automatically.
11. Click the **Usages** tab.
12. In the *Usage* field, select *Call Center* from the list of values.

Note: The Accounting Code and Email Address fields are not required in email routing.

Warning: Enter an end date only if you want to terminate the group. Use extreme caution when using this feature!

---

13. Select *File* > *Save*.

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.3.3 Creating Routes and Associating with Accounts

There are two steps to creating routes:

Step 1: Creating Routes

Step 2: Associating Routes with Accounts

5.3.3.1 Creating Routes

Oracle eMC automatically routes incoming emails to an agent group based on user-defined rules. These rules are constructed using key value pairs extracted from the properties and content of the email. The routing rules are executed in the ascending order of priority. If none of the rules are satisfied, the email is routed to all agents belonging to that account.

Emails are always routed to an agent group and not to the individual agent. An agent (resource) group is only valid if it contains at least one resource, which is assigned to an email account and has one of the eMail Center Agent, eMail Center Supervisor, or eMail Center Manager roles assigned to it.

Login

eMC Self Service Administrator

Responsibility

Administrator

Prerequisites

None.

Steps

1. From the HTML application login screen, log in using the eMC Self Service Administrator user name and password.
2. Click on **Administration**.
3. Click on **Route.**

The Routes screen is displayed.

4. Click on **Create.**

You will see the Route Details screen.

5. Enter the Route Name and Description.
6. Select the Rule Chaining operator from the drop down list.

   For any Route, all rules can be chained using either the AND or the OR operators, but not both.
7. Enter one or more rules by selecting a Key and the corresponding Operator from the drop down list.

8. Enter a value.

A date or time picker is provided if the key selected is of the type date or time.

9. Click on **Create.**

To update an existing Route, click on the Route Name, which is provided as a hyper-link. The Route Details screen will be displayed, allowing you to update the description, the rule chaining operator, and the rules.

To remove a route, click on a box under the Remove column, and click, **Update.**

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.3.3.2 Associating Routes with Accounts

One or more routes can be associated to an email account, in order for incoming emails addressed to that account to be routed to the respective destination group of agents.

The Account Association screen enables Routes to be associated with an email account. This Account Association must be enabled in order for that route to be executed. Routes that are not enabled will not be executed.

Route priorities perform the same function as Classification priorities; they are used to determine the order in which each Route and its rules are executed. The priority of each Route is unique; the priority can be changed; and, in doing so, will affect the values of other routes priorities. By default, newly defined routes are assigned the lowest priority among existing routes.

The routing engine evaluates routes in order of priority, starting with 1. The first route, whose rules are satisfied, will determine the routing destination. At the end of the email processing, an email will have ONE and ONLY ONE destination (resource) group assigned to it. The routing engine will check the validity of a Destination group before routing an email to that group; if the group does not contain a valid set of resources, the email is routed to the Default Destination Group. If the Default Destination Group does not contain a valid set of resources, the email is routed to all agents assigned to the email account.

If the routes have been setup, but none are valid for the email being processed, the emails are routed to all agents assigned to the email account. If there are no routes setup, emails are routed to all agents assigned to the email account.

Login

eMC Self Service Administrator

Responsibility

Administrator

Prerequisites

You must have at least one resource group, that contains a resource (agent) who has been assigned to the email account in order to use that resource group when routing to the email account.

Steps

1. From the HTML application login screen, log in using the eMC Self Service Administrator user name and password.
2. Click on **Administration**.
3. Click on the menu item called, **Route**.
4. Click on **Account Association**.

The Account Associations screen is displayed.

5. Select an email account from the drop down list, and click **GO**.
6. Select Route Name.
7. Select Destination Group.
8. Select Default Destination Group.

> **Note:** The routing engine will check the validity of a Destination group before routing an email to that group; if the group does not contain a valid set of resources, the email is routed to the Default Destination Group. If the Default Destination Group does not contain a valid set of resources, the email is routed to all agents assigned to the email account.

9. Select **Priority**.

The Route - Account Association will be set to Enabled by default.

Account Association must be enabled in order for that route to be executed. Routes that are not enabled will not be executed.

10. Click on **Update.**

11. Select another Route to associate with the same email account, repeat steps 5-10 <optional>.

To remove a route account association, click on a check box under the Remove column, and click, Update.

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.3.4 Rules Checkpoint: Verification

At this point a set of rules for routing and queuing purposes should have been created for your eMC. Complete the following steps prior to performing the Business Data Module steps, in order to confirm that the Rules steps were successful.

1. Send one or more emails to each account matching the routing and classification rules.
2. Log in as Agents belonging to different routing groups.
3. Confirm the following:
   - Agents can view all classifications.
   - Email Counts are consistent with Routing & Classification Rules for each agent.

5.4 Business Data Module

This section covers the steps required to perform the following:

- Create Intents and Keywords
- Set Intent Options
- Creating Categories and Publishing Documents in MES
- Creating Queries and Associating them to Documents

5.4.1 Intents and Keywords

Oracle eMail Center is provided with a string of keywords extracted from the email by the Oracle Text module of the Oracle database. Using these keywords, Oracle eMail Center deciphers the intent of the email message or the broad area pertaining to the email and assists the agent in selection of appropriate responses. To enable the eMC Intent engine, the administrator is required to create "intents" pertaining to the business. The administrator should gather sample emails and sample responses for each of the intents. To train or build the intent engine the administrator would then simply have to email the sample emails and sample responses to the "intent" account created automatically during the configuration process. Keywords are extracted from these sample messages, scored and stored in the eMC schema for the specified intent. The keywords extracted from every incoming email are matched with the keywords stored in the eMC schema to identify the intent of the email and fetch corresponding responses. Every intent and suggested response document is assigned a score (percentage) based on the scores of the keywords identified in the incoming email. Oracle eMC can identify multiple intents in an email and multiple responses for each intent, thereby enabling eMC Agent to handle multi-issue emails in a single response.

The administrator can also create intents and insert keywords for each of the intents manually using the "Intent" screens available through the Self Service Administrator module and described below. However it is our recommendation that intents are created by sending sample emails and sample responses to the "intent" account and using the "Intent" screens only to modify scores of a particular keyword or remove an undesirable keyword.

Follow the guidelines listed below for defining intents, sample emails, and sample responses:

- The intent name can be up to 50 chars long. It can consist of multiple words separated by a blank space but have to be unique.
- Intents should be mutually exclusive and should encompass the complete spectrum of questions that an organization expects to receive.

For example, a hardware company would have the following intents: Accessories, Service, Product Information, Installation; whereas a medical company might have the following intents: claims, insurance, and doctors.

- Think about the key words that you want to be associated with the Intent, consider the variations on these words/phrases that customers may use.
- Consider the words or phrases that distinguishes one intent from another.

- Do not include signature files in the sample emails and sample responses as the contents will be processed and Keywords that are irrelevant to the Intent will be generated.
- Do not "forward" sample emails and sample responses to the Intent account.
- Do not include Company names, logos, acronyms, etc. in the sample emails and responses.
- Do not include Greetings (e.g. Dear Sir) and Signatures (e.g. Best Regards, Joe Smith) in the sample emails and responses.
- Do not include specific codes or numbers, for example: product codes, sizes, telephone numbers, order numbers unless they uniquely identify an intent.
- Repeat the common words/phrases that defines an Intent in order to increase the score associated with a Keyword

5.4.1.1 Create Intents and Keywords

The following steps shall be used in order to create intents and keywords.

Login

eMC Self Service Administrator

Responsibility

Administrator

Prerequisite

An Intent email account should exist.

Steps

1. Identify a list of Intents.
2. Identify a list of commonly asked email questions by subject area.
3. Identify a list of email responses to all commonly asked questions.
4. Compose and send an email to your Intent account.

For example:

To: intent@domain.com

5. Enter data in the subject line:

The Subject of the email should conform to the following format:

For sample incoming emails (queries):

<Intent name><email account><Q>

(e.g., <Water Heating Service><support@emailcenter.com><Q>).

For sample response emails:

<Intent name><email account><R>

(e.g., <Water Heating Service><support@emailcenter.com><R>).

The letters "Q" and "R" must be represented in upper case.

6. After all questions and responses have been sent to the intent account, log into eMail Center Self Service Administration console; select the Administration sub-tab, Intent sub-menu option, and verify that all intents exist.
7. Select the Keywords sub-menu option and verify that for each intent a list of keywords has been generated. If emails containing Questions and Responses were sent there will be Keywords identified with a "Q" or an "R" and a related score.

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.4.1.2 Updating an Intent

The intent screen under the SSA console should be used for updating and removing intents and associated keywords.

Login

eMC Self Service Administrator

Responsibility

Administrator

Prerequisites

None.

Steps

1. From the HTML application login screen, log in using the eMC Self Service Administrator user name and password.
2. Click on **Administration**.
3. Click on **Intent.**

The Intents screen is displayed.

4. Select an email account and click on **Go**.

A list of the intents for that account is displayed.

5. Click on the Intent Name, provided as a hyper-link.

You will see the Intent Details screen.

6. Update the required fields.

> **Note:** If changing the email account for an intent, ensure you select an email account that has the same language associated to it as the original email account.

7. Click on **Update.**

To remove an intent, click on a check box under the Remove column, and click, **Update.**

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.4.1.3 Updating Keywords

The Keywords Screen provides the ability to update the keyword, its type, and score.

Based on its linguistic analysis capabilities, Oracle Text processes <Q> and <R>-type emails sent to the intent account to determine their keywords and relative importance. The process extracts and stores in the eMC database the intent and the intent's keywords with associated scores.

An administrator may manipulate the results of the above process by adding or removing keywords from an intent or by changing the score of a keyword. The maximum score a single keyword may have is 1. Again, it's important to emphasize that scoring is relative among all keywords within an intent.

Login

eMC Self Service Administrator

Responsibility

Administrator

Prerequisites

None.

Steps

1. From the HTML application login screen, log in using the eMC Self Service Administrator user name and password.
2. Click on **Administration**.
3. Click on **Intent.**
4. Click on **Keyword.**

You will the Keyword screen.

5. Select the intent from the drop down list, and click **Go.**
6. Click on the keyword name, provided as a hyper-link.

The Keyword Details screen is displayed.

7. Update the required fields.
8. Click on **Update**.

To remove a keyword, click on the check box under the Remove column, and click, **Update.**

5.4.2 Setting Intent Options

The following two options are provided:

1. Number of intents with pre-fetched responses -- this is the number of intents for which suggested responses will be fetched as part of the email

processing. The response documents for other intents will be fetched upon request in the eMC Agent Console.

2. Enable intent analysis processing -- intent processing can be enabled or disabled on an account basis. Suggested responses are not displayed for accounts for which the intent analysis is disabled. By default, intent processing is enabled for all accounts.

Login

eMC Self Service Administrator

Responsibility

Administrator

Prerequisites

None.

Steps

1. From the HTML application login screen, log in using the eMC Self Service Administrator user name and password.
2. Click on **Administration**.
3. Click on **Intent.**
4. Click on **Option.**

You will see the Options screen.

5. Update required fields.
6. Click on **Update.**

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.4.3 Creating Documents in MES

Oracle eMail Center (eMC) uses the Marketing Encyclopedia System (MES) as its document repository. MES provides the administrator with the capability to organize documents into various categories (or folders). The MES repository is

shared by all CRM applications and hence may contain documents not pertaining to eMail Center. In addition, the templates or style sheets provided to an agent while composing new emails must be stored in the "EMC Templates" category, which is created as a sub-category of the "Email Center" category. The eMC processes will search MES categories for response documents only if MES is selected in the site profile options. The eMC agent can also manually browse through the MES categories or search for a specific document using the Knowledge Base tab.

You must create the following categories:

- Email Center - This is the parent category for all eMail Center related categories.
- EMC Templates - This should be created as sub-category of the "Email Center" category. All templates or style-sheets to be provided to the agent while composing a new email must be stored in this category.

A response document can be an ASCII text file, a Word document or an HTML document. However, please note that an agent will only be able to "insert" an ASCII text file or an HTML document into the email. The agent can however "attach" documents of any type to email. The eMail Center agent is provided with an option to use either a Plain Text editor or a Rich Text editor, which provides features to change font, size, color, and format of the text and insert images into the response. Hence, if the response document is an HTML document and contains embedded images (for logo etc.) then the original format of the response will only be retained if the agent is using the Rich Text editor while composing the email.

Documents may have merge fields which are populated dynamically based on certain query criteria. Hence merge fields can be viewed as a place holder for a variable which gets populated when a query associated with document is executed. To help eMC processing to identify merge fields in a document, they must be enclosed within a set of special tags. These tags are displayed as << and >> in the document and can be entered by holding down the "Alt" key and typing "0171" (for <<) and "0187" (for >>) on the numeric keypad with the Num Lock Turned ON.

A good example for using merge fields is show below:

Dear <<FIRST_NAME>> <<LAST_NAME>>,

Thank you for your interest in "PRODUCT". This product will be released on "DATE".

A number of merge fields exist whose values are automatically pre-populated with customer, email account and message information. These merge fields can be inserted directly into a response document/template and do not require a query for extracting the data. The following tables show the list of merge fields:

Table 1-3 shows the merge fields for Customer Data Available from Customer Detail Page:

Table 5–2

Merge Field Code	Description
CP_LAST_NAME	Last Name
CP_FIRST_NAME	First Name
CP_MIDDLE_NAME	Middle Name
CP_PREFERRED_NAME	Preferred Name
CP_TITLE	Title
CP_2ND_TITLE	Second Title
CP_SUFFIX	Suffix
CP_PRIMARY_EMAIL	Primary Email Address
CP_PRIMARY_PHONE	Primary Phone Number
CP_ADDR_LINE1	Address Line 1
CP_ADDR_LINE2	Address Line 2
CP_CITY	City
CP_STATE	State
CP_PROVINCE	Province
CP_POSTAL_CODE	Postal Code
CP_COUNTY	County
CP_COUNTRY	Country
CP_ORGANIZATION	Organization

Table 1-4 shows the merge fields for Agent Data Available from JTF:

Table 5–3

Merge Field Code	Description
AD_USER_NAME	User Name (This is the FND_USER.USER_NAME, e.g., MRABATIN.)
AD_USER_FULL_NAME	User Full Name

Table 1-5 shows the merge fields for Miscellaneous Data:

Table 5–4

Merge Field Code	Description
MD_CURR_DATE	Current Date
MD_CURR_TIME	Current Time

Table 1-6 shows the merge fields for Current Email Account Data:

Table 5–5

Merge Field Code	Description
ACCT_REPLY_TO	Current Account Reply To Address
ACCT_FROM_NAME	Current Account From Name
ACCT_FROM_ADDRESS	Current Account From Address
ACCT_SIG	Current Account Signature

Table 1-7 shows the merge fields for Current Inbound Message Data:

Table 5–6

Merge Field Code	Description
INB_EMAIL_ADDRESS	Inbound Message From Address
INB_SUBJECT	Inbound Message Subject
INB_TO	Inbound Message To Address List
INB_CC	Inbound Message CC Address List
INB_SENT_DATE	Inbound Message Sent Date
INB_CLASSIFICATION	Inbound Message Classification

5.4.3.1 Creating a Category in MES

The MES Category Manager screen allows you to create and maintain categories.

Login

eMC Self Service Administrator

Responsibility

MES Administrator

Prerequisites

Administrator should have *MES Administrator* role assigned.

Steps

1. From the HTML application login screen, log in using the eMC Self Service Administrator user name and password.
2. Click on **Administration**.
3. Click on **Document.**
4. Click on **Administration.**

The MES Administrator screen will be displayed.

5. Click on **Category Manager**.

The Category Manager screen appears.

6. In the provided fields, type the name of the new category and a description of it.
7. Click on **Update**.

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.4.3.2 Defining a Hierarchy Among the Categories

The MES Hierarchy Manager allows you to create and maintain the hierarchies of categories.

Login

eMC Self Service Administrator

Responsibility

MES Administrator

Prerequisites

Administrator should have *MES Administrator* role assigned, and the categories must be created prior to defining a hierarchy among them.

Steps

1. From the HTML application login screen, log in using the eMC Self Service Administrator user name and password.
2. Click on **Administration**.
3. Click on **Document.**
4. Click on **Administration.**

The MES Administrator screen will be displayed.

5. Click on **Hierarchy Manager**.

The Hierarchy Manager screen appears, displaying a list of child and parent categories.

6. Select the row, which displays the sub-category name under the *Name* column.
7. From the drop-down list in the *Parent Name* column for that row, select the parent category.
8. Click **Update**.

5.4.3.3 Uploading Documents Into MES

The MES Publish screen allows you to upload response documents into MES under the appropriate category.

Prerequisites

Administrator should have *MES Administrator* role assigned, and the categories must be created.

Steps

1. From the HTML application login screen, log in using the eMC Self Service

Administrator user name and password.

2. Click on **Administration**.
3. Click on **Document**.

4. Click on **Publish**.

The Publish screen will be displayed.

5. Select File as the Item Type.
6. Enter values for the following mandatory fields: Title, Author Name, and Description.
7. From the drop-down list in the Content Type field, select Master Document as content type.

The Content Creation Date and Effective Start Date fields can be left blank.

8. Check the Permanent Duration radio button.
9. From the drop-down list in the Category field, select the appropriate Category. (For suggested responses, select the Email Center category or for templates select the EMC Templates category.)
10. The Priority is not used by eMC, so select any Priority from the drop-down list.
11. Click on **Upload File**.
12. Click on **Browse** to browse through the file system.
13. From the file system, select the desired document.
14. Click on **Open**.

The entire path for the selected document is now displayed under File Name.

15. Click on **Attach File**.

Once the file has fully uploaded, the File Name appears in the uploaded files box. Also, if the response document contains one or more inline images, then repeat steps 12 through 15 for every image file that needs to be included in the response document.

16. Click on **Finished**.
17. Click on **Publish**.

A success message will be displayed on the top of the screen in red letters.

Note: If the documents loaded into MES will be used as suggested responses, a concurrent process needs to be run in order to rebuild the Oracle Text index for MES. Log in as the eMail Center Standalone Monitoring Administration user in the forms application, and submit a request to run the Rebuild Help Search Index concurrent process (refer to the Business Data Checkpoint section).

To publish another document you must start by clicking Publish sub-tab again. Do not try to use (re-cycle) data entered for a previous file.

5.4.3.4 Verifying the Document Uploaded Successfully

MES provides a Category Screen for displaying categories, the documents in each

Login

eMC Self Service Administrator

Responsibility

MES Administrator

Prerequisites

Administrator should have *MES Administrator* role assigned, and the documents must be published.

Steps

1. From the HTML application login screen, log in using the eMC Self Service Administrator user name and password.
2. Click on **Administration**.
3. Click on **Document.**

The Categories screen with be displayed.

4. Click on the desired category name.

The name of the suggested response documents and their descriptions should be displayed.

5. Click on the name of the file and the contents of the document should be displayed in a separate pop-up window.

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.4.3.5 Deleting Published Documents

The MES My Channel option enable you to update the details (e.g., title, author, description, and category) associated with a response document or remove a response document.

Note: You can only delete documents that you published. You cannot delete documents that have been published by other user names.

Login

eMC Self Service Administrator

Responsibility

MES Administrator

Prerequisites

Administrator should have *MES Administrator* role assigned, and the documents must be published.

Steps

1. From the HTML application login screen, log in using the eMC Self Service Administrator user name and password that was used to publish the document.
2. Click on **Administration**.
3. Click on **Document.**
4. Click on **My Channel.**
5. Click on **View My Published Items.**

6. Select the check box next to the document you want to delete.
7. Click on **Update.**

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.4.4 Creating Queries and Associating with Documents

There are two steps involved in creating Queries:

Step 1: Creating Queries

Step 2: Associating Queries with Documents

5.4.4.1 Creating a Query

Use this procedure to create a query before associating it with a document.

Login

eMC Self Service Administrator

Responsibility

JTF_FM_Admin

Prerequisites

Administrator should have the *JTF_FM_ADMIN* role assigned, and the documents must be published.

> **Note:** Merge Fields are case sensitive and should be referred to exactly the same as they were obtained from the query.

Steps

1. From the HTML application login screen, log in using the eMC Self Service Administrator user name and password that was used to publish the document.
2. Click on the **Query** sub tab.

The Query screen is displayed.

3. Click on **Create.**

You will see the Create Query screen.

4. Populate the Query Name and Query Description fields.

5. In the Query String field, enter the SELECT statement.

> **Note:** The alias for the column names in the Select clause, should match the name of the merge fields in the document. Do not end the query with a semicolon (;) or forward slash (/).

For example, if the document had following merge fields:

Dear <<FIRST_NAME>> <<LAST_NAME>>,

Thank you for your interest in <<PRODUCT>>. This product will be released on <<DATE>>.

The query to populate these fields would have the following SELECT statement:

```
SELECT CUSTOMER_FIRST_NAME  "<<FIRST_NAME>>",
CUSTOMER_LAST_NAME  "<<LAST_NAME>>",
PRODUCT_NAME  "<<PRODUCT>>",
 RELEASE_DATE "<<DATE>>"
FROM …
WHERE …
```

> **Warning:** Ensure that the SQL query is written such that a default value is returned if the query returns no data, otherwise the template / response document cannot be used.

6. Click on **Create.**

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.4.4.2 Associating a Document and a Query

To associate a document and a query, you will need the document ID, user ID (of the user that published the document), and the query ID.

Login

eMC Self Service Administrator

Responsibility

Administrator

Prerequisites

None.

To obtain the document ID and user ID, perform the following steps:

Steps

1. Login to the CRM database as a user that has privileges to execute a SQL Select statement on the schema object: JTF_AMV_ITEMS_TL
2. Run the following SELECT statement in SQL*Plus:

SELECT ITEM_ID, CREATED_By

FROM JTF_AMV_ITEMS_TL

WHERE ITEM_NAME = '<DOCUMENT_TITLE>';

Where DOCUMENT_TITLE is the title of the suggested response document you uploaded in MES.

To obtain the query ID, go to the Query sub tab in the eMC SSA console, click on the desired query name, which is hyper-linked, and make a note of the query ID.

To associate a document with a query, execute the following INSERT statement in SQL*Plus:

INSERT INTO JTF_FM_QUERY_MES

VALUES (<DOCUMENT ID>, <QUERY ID>, SYSDATE, <USER ID>, SYSDATE, <USER ID>, NULL, NULL, NULL);

Where document id, query id, and user id are the values noted above.

SYSDATE is a system variable provided by SQL*Plus that always has the value of the current system date.

NULL values are inserted in the final three columns since they are not used in eMC.

To obtain the document ID and user ID, perform the following steps:

Steps

1. Login to the CRM database as a user that has privileges to execute a SQL Insert statement on the schema object: JTF_FM_QUERY_MES.
2. Run the following INSERT statement in SQL*Plus:

SELECT ITEM_ID, CREATED_By

FROM JTF_AMV_ITEMS_TL

WHERE ITEM_NAME = '<DOCUMENT_TITLE>';

Where DOCUMENT_TITLE is the title of the suggested response document you uploaded in MES.

To obtain the query ID, go to the Query sub tab in the eMC SSA console, click on the desired query name, which is hyper-linked, and make a note of the query ID.

To associate a document with a query, execute the following INSERT statement in SQL*Plus:

INSERT INTO JTF_FM_QUERY_MES

VALUES (<DOCUMENT ID>, <QUERY ID>, SYSDATE, <USER ID>, SYSDATE, <USER ID>, NULL, NULL, NULL);

Where document id, query id, and user id are the values noted above.

SYSDATE is a system variable provided by SQL*Plus that always has the value of the current system date.

NULL values are inserted in the final three columns since they are not used in eMC.

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

5.4.5 Business Data Checkpoint: Verification

At this point the basic eMC implementation and configuration should be complete. Complete the following steps in order to confirm that the Business Data steps were

successful. The Configuration, Rules and Business Data steps can be revisited to incorporate any implementation specific requirements.

Login

eMail Center Standalone Monitoring Administration

Responsibility

eMail Center Standalone Monitoring Administration

Prerequisites

None.

Steps

1. Log in as the eMail Center Standalone Monitoring Administration user and submit request to run the Rebuild Help Search Index concurrent process:

   a. From the Forms application login screen, login using the default system administrator user name and password.

   b. From the list of application responsibilities, select eMail Center Standalone Monitoring Administration.

   The Navigator-eMail Center Standalone Monitoring Administration screen appears, displaying a list of functions.

   c. From the list of functions, double click **eMail Center Standalone DBA**.

   d. Double click **Requests**.

   e. Double click **Run**.

   The Submit a New Request box appears.

   f. Select the Single Request option.

   g. Click **OK**.

   The Submit Request screen appears.

   h. Click on the Drop down list of the Name field.

   i. Select Rebuild Help Search Index.

   j. Click **Submit**.

2. Send an email from the email account defined for the customer created in Step 1. The content of this email should contain keywords (similar to those in the sample 'Q' email) used to create Intents.
3. Log in as an Agent.
4. Fetch an email.
5. Verify that the Intent and Suggested Responses relate to the email.
6. Respond to email using suggested response document.
7. Compose a new email using a template stored in the Knowledge Base.
8. Search for documents in the Knowledge Base and insert into the email.
9. Send the email and confirm receipt.
10. Confirm the following:
    - No emails in the OES Retry/Admin folders
    - Suggested responses presented in Reply screen
    - Customer details displayed in Customer bin (successful customer lookup using email address)
    - Intents/Suggested Responses and confidence scores available
    - Merge fields populated or prompt for entry and successfully inserted into email
    - Able to insert/attach suggested response
    - Template shown in bin on Compose screen
    - Merge fields populated
    - Categories, hierarchies and documents visible
    - Search for documents successful
    - Able to insert/attach document from Knowledge Base Tab

Guidelines

Read the content of the latest IEM readme and HTML file for important information about new features, post installation steps and other changes introduced with the release.

6

Troubleshooting and Frequently Asked Questions

6.1 Troubleshooting

Please refer to the latest IEM release Readme and relevant HTML files:

- Patch Description
- Frequency Asked Questions (FAQs)
- Implementation Overview
- Detailed Implementation Steps

Please refer to MetaLink - http://metalink.oracle.com for all the latest product documentation and documentation updates for Oracle's products.

1. Error messages received when creating the Default Configuration.

Indication: The eMC administration user attempts to create the eMC Default Configuration and receives error messages.

Solution: Most of the errors you see with the eMC Default Configuration are due to incorrect data input. Ensure that the correct values are input in the following fields of the Create Configuration screen. Listed below are the fields in which incorrect input values most commonly cause errors:

- Global Name of OES database: You can get the correct value for this field from the global_name table in the OES database. (sqlplus user/pswd : 'select * from global_name;')
- Domain Name for creation of accounts: Ensure that you provide a fully qualified domain name: For example, EMC.COM or EMAILCENTER.COM (notice the .COM extension).

- OES node: Ensure that you provide the correct name of the OES node. You can get the correct value for this field from the ds_node table in OES database. (sqlplus oo/pswd: 'select name from ds_node;')

In addition to providing correct values for the fields listed above, ensure that you provide the correct Listener Port Number, Passwords, Machine name & IP address information.

2. Error message received when associating a route with an email account.

Indication: The eMC administrator attempts to associate a route with an email account and receives an error message indicating that no resource groups are defined.

Solution: Ensure that at least one resource group has been defined which includes an agent with the eMail Center Agent resource role.

3. Email messages are not reaching the Inbox folder of my email account.

Indication: Email messages have been sent to an OES email account. A user accesses the OES account inbox and does not see the email messages. This problem might be encountered while testing the OES installation during the Installation Checkpoint process.

Solution:

a. Check if the email has bounced because of a bad email address. Re-send the email to the correct email address.

b. Check if your email has reached the host machine where your OES is running. Check your system logs.

c. Check if the email has reached Oracle Email Server inbound SMTP gateway. Check your Oracle Email Server logs.

d. Check if your Postman process is running and delivering messages as they come. Check your Oracle Email Server logs.

4. I can send emails to test users on my OES; but, when I send emails to an eMC email account, I do not see it in the inbox.

Indication: Email messages have been sent to an OES email account. A user accesses the OES account inbox and does not see email messages. This problem might be encountered during normal eMC operations.

Solution: This generally means that the OES is not functioning properly. Check if the email messages are properly getting delivered by the Postman Process by looking at the log files. Check if the email messages are in the Retry folder. Email

messages might have failed while processing and have been moved to the Retry folder.

5. Email messages are in the Admin folder.

Indication: The eMC administrator monitors the Admin folder and notices that messages are showing up in the Admin folder.

Solution: Email messages are moved into the Admin folder when email processing attempts to process an email in the Retry folder and fails. Ensure that database links are functioning properly, passwords have not changed, and so on. Move the messages from the Admin folder to the Retry folder. Run the 'Process standalone eMail Center retry folder' concurrent program to re-process the emails in the Retry Folder.

6. Email messages are not being moved into the appropriate classification folders.

Indication: The eMC administrator monitors the eMC processing and notices that email metadata tokens are remaining in the Pre Meta-Data Table (Pre MDTS).

Solution: eMail Center has two MetaData tables in its schema. They are IEM_PRE_MDTS (Pre MDTS) and IEM_POST_MDTS (Post MDTS). The Pre MDTS stores information about those emails that are still in processing phase. The Post MDTS stores fully processed email information. If your email metadata tokens are remaining in the Pre MDTS, the Concurrent program might not be running.

To see any existing eMail Center concurrent processes, complete the following steps:

a. From the Forms application login screen, login using the default system administrator user name and password.

b. From the list of application responsibilities, select eMail Center Standalone Monitoring Administration.

The Navigator-eMail Center Standalone Monitoring Administration screen appears, displaying a list of functions.

c. From the list of functions, double-click eMail Center Standalone DBA.

d. Double click Concurrent.

e. Double click Requests.

f. Click on **Find** to see existing processes.

7. An eMC Agent User does not see email accounts in the eMC Home Page.

Indication: An eMC agent user logs in to eMC, and does not see email accounts listed in the Inbound Messages list.

Solution: Check the following:

- Is agent user assigned to the email account?
- Is agent user properly assigned to a Resource Group?
- Are there available email messages in the email account queue?

8. Intent email messages are not creating intents and keywords.

Indication: The eMC administrator logs onto the Self Service Administrator (SSA) Console and navigates to the Intents screen. No intents are listed for the email account.

Solution: Check the following:

- Is the "Intent" account available/defined on the SSA Accounts screen?
- Is Oracle Text properly configured?
- Does the sample email and response subject contain an <account@domain> value that is available/ defined in SSA Accounts screen?

9. Documents are not being picked up as suggested responses.

Indication: An eMC agent user does not see suggested responses in the Suggested Response bin when replying to an email message.

Solution: Check the following:

- Ensure that intent processing is enabled for the email account.
- Ensure that after uploading documents, the "Rebuild Help Search Index" concurrent program is run.

6.2 Frequently Asked Questions

Where can I get more information on migrating from eMC 11.5.5 to 11.5.6?

Please refer to MetaLink - http://metalink.oracle.com for the Readme file of Oracle Applications of CRM 11.5.6 Family Pack.

What default folders and accounts are created on OES by eMail Center?

The following accounts and folders are created when a new account is created in eMC:

- <account> e.g. test, with folders:
- inbox
- retry
- admin
- resolved
- deleted
- sent
- unclassified

The following folders are created when a classification is associated with an account:

<classification> folder under the account

The following accounts and folders are created when an email account is assigned to a resource (agent):

- <user_name>_<account> e.g. jsmith_sales with folders:
  - inbox

You can connect with IMAP to these accounts by using the following convention:

- eMC email account: <account>@<domain>/<password> (e.g., sales@oracle.com/welcome)
- Agent account: <agent_account>@<domain>/<password> (e.g., jsmith_sales@oracle.com/welcome)

Where did Java Servers go?

The Inbound email processing has been simplified (no eMC Java server) by providing database resident processes which extract information from the email, create a media item for the email, execute the respective API calls to analyze the intent of the email, classify the email and route it to a specific group of users defined using the routing engine. At the end of the concurrent processing the email is placed in the appropriate queue and is available to be fetched by the next agent who is assigned to that particular account. However, Interaction Center servers are still required for Telephony support.

Where did the eMC Admin and Operations Manager Consoles go?

The eMC Admin and Operations Manager consoles have been replaced with the Self Service Administration console. Auto configuration of eMail Center is now performed from a single input screen accessible from the Setup Sub Tab menu. eMail Center administration is performed from a common set of Self Service screens.

What is the Self Service Administration console?

eMail Center Self Service Administration is a set of common screens for the setup and administering of eMail Center from a single login. Self Service Administration is user friendly and chronological formatted for simple navigation and step-by-step set up. Key features and benefits include the following:

- Overall Ease of Use.
- Auto configuration (setup) enables you to create a server group, define the Oracle Email Server (OES) database, create two database links to the OES database, define the IMAP and SMTP servers, and create two email accounts (test and intent).
- Integration with Marketing Encyclopedia System (MES) Administration.
- Integration with One-to-One Fulfillment Administration.
- Graphical User Interface for defining classification and routing rules.
- Updating the Default Configuration data or creating a custom configuration

A user accessing the Self Service Administration console must have the eMail Center Self Service Setup responsibility, MES Administrator resource role, and the JTF_FM_ADMIN role assigned.

Setting Up Site Profiles

Why do I need a Default Interaction Center Server Group?

The Resource Manager application requires an Interaction Center server group to be selected for associating resources to eMC email accounts; therefore, Oracle eMC requires a default Interaction Center Server Group.

Why do I need a Default Customer?

All interactions have to be associated with a valid customer. The interactions for incoming emails from parties not defined in the system, will be either associated with a Default Customer or the agent can search for a valid customer.

Have the eMC Concurrent Programs changed for this release?

Yes, Oracle eMail Center now has the following concurrent programs:

- Rebuild Help Search Index.
- Process the standalone eMail Center retry folder.
- Purge eMail Center Standalone Workflow.
- Stop eMail Center Standalone Workflow.
- eMail Center Standalone Workflow Controller.

Refer the Configuration Check Point section for more information on running eMail Center requests.

What happen to the default Workflow shipped with eMail Center?

The out of the box processing of default workflow has been replaced by database resident programs which do the equivalent processing, i.e. analyze emails, extract the contents, classify and route the emails and get the suggested response documents. The 'Mail Pre-processing' workflow is still provided but is called only for custom email processing - Refer to Create Email Accounts "Enable Customized Processing Flow" field.

What will happen to the existing customization done to the workflow (11.5.5 and before)?

If you already customized the default workflow (i.e. added some extra nodes, plugged in new customized API etc.), then in the SSA console, Create Account screen you need to enable the customized workflow option. Refer to Create Email Accounts Enable Customized Processing Flow field.

How are Classifications used?

The eMC classification engine automatically classifies incoming emails based on user-defined rules; these are presented to agents as queues. When a classification is associated with an email account, a folder bearing the classification name will be created under that account on the Oracle Email Server. Classification rules are constructed using key value pairs extracted from incoming emails. If none of the rules are satisfied, the email is assigned the classification "Unclassified".

How is Routing performed?

The eMC Routing engine automatically routes incoming emails to an agent group based on user-defined rules. These rules are constructed using key value pairs extracted from incoming emails. The routing rules are executed in the ascending order of priority starting with 1. If none of the rules are satisfied, the email is routed to all agents belonging to that account. Emails are routed to an agent group and not to the individual agent. An agent (resource) group is only valid if it contains at least one resource, which is assigned to the email account and has one of the eMail

Center Agent, eMail Center Supervisor, or eMail Center Manager roles assigned to it.

What happened to the term Email Classification?

Email Classification is now referred to as Intent. Intents enable agents to identify the broad area pertaining to the email and assist in the selection of appropriate responses.

How does the eMC analyze Incoming Emails?

Oracle eMail Center is provided with a string of keywords or themes extracted from the email by the Oracle Text module of the Oracle database. Using these keywords, Oracle eMail Center deciphers the intent of the email message or the broad area pertaining to the email and assists the agent in selection of appropriate responses. To enable the eMC Intent engine, the administrator is required to create "intents" and keywords pertaining to the business. The keywords extracted from every incoming email are matched with the keywords stored in the eMC schema to identify the intent of the email and fetch corresponding responses. Every intent and suggested response document is assigned a score (percentage) based on the scores of the keywords identified in the incoming email.

Does the eMC Intent Processing support Multi Languages?

eMC uses the Oracle Text application as part of it's Intent analysis process. Oracle Text extracts a set of keywords from an incoming message and provides them to the eMC Intent engine to identify the email intent. Once the intent for the email is identified, Oracle Text searches through the knowledge base repositories to determine appropriate response documents.

Oracle Text, previously known as interMedia Text, is a component of the Oracle 8i Database. It provides a generic search, retrieval, and viewing capabilities for text. When used with eMC, Oracle Text 8.1.7 performs text searches and keyword analysis in languages supported by CRM applications. The quality of this process for a specific language is a function of not only how well the system has been "trained" and "tuned" over time by the administrator, but also the database character set and tools (such as stoplists provided by Oracle Text) used to optimize the search and retrieval of keywords.

Has the eMC Agent Console login changed?

Yes, the agent no longer logs into the Business Application nor views email queues via UWQ. The eMC Agent Console is now accessible directly from the HTML application login and the email queues are now displayed on the Home Page.

The eMC Agent Console Home page displays the email accounts assigned to the agent and the classifications for each of the accounts. The queue named "All" enables the agent to fetch the oldest email across all classifications. To fetch an email, check one of the radio buttons next to the corresponding classification and then click on Get Message. The Inbox Summary section displays the number of emails fetched, which have not been responded to. The account name is provided as a hyper-link, which when clicked, displays the "My Inbox" screen and the list of unresolved emails.

Where did Preview go?

The Preview screen is gone but you can still view the inbound email by scrolling down the editor box text or by clicking on View Inbound Message button in the Reply screen. The content of the incoming email is displayed in the Inbound Message screen.

How does an Agent wrap up an Interaction without Customer Care?

An interaction record is created when you fetch an email from one of the queues or open an email transferred to you by another agent. The interaction record is closed when you perform a Send, Transfer, or Delete operation. The information pertaining to that interaction is then recorded using the new "Wrap up" screen. You must select a value from the drop-down list available for each of these mandatory fields. The default value is displayed for each of these fields is based on whether you performed the Send, Delete, or Transfer operation to end the interaction.

Can I still Search Emails?

Yes, the Search tab provides the functionality that enables you to search for archived emails. You can search for emails in system folders: Resolved, Sent, Deleted, or in your Inbox. The search is account based; hence, you select a particular account and a specific folder within that account for the search operation.

7

Verifying the Implementation

7.1 Oracle eMC Implementation Verification Tasks

Refer to the Checkpoints listed in Chapter 5 of this implementation guide.

Abbreviations and Acronyms

API

Application Programming Interface

CRM

Customer Relationship Management

eMC

Oracle eMail Center

IEM

Product code for eMail Center

IH

Interaction History

IMAP

Internet Messaging Access Protocol

JMA

Java Mail API

JRE

Java Runtime Environment.

JTF

Java Technology Framework

KB

Knowledge Base

MES

Marketing Encyclopedia System

NLS

National Language Support

OES

Oracle Email Server

SMS

Solution Management System otherwise known as Knowledge Management

SMTP

Simple Mail Transport Protocol

Glossary

eMC Agent Console

This is used by Agents to respond to inbound emails and compose outbound emails using the eMail Center Application

Apache

A third party web server

Applet

A Java program that runs in the Internet browser

Classification

Groups or queues into which incoming email messages are sorted.

Customer Care

Oracle CRM Application

Domain

Refers to the domain name in which the email account resides

eMail Center

Oracle CRM Application

Intent

Represents the intent or purpose of an incoming email message.

iSupport

Oracle CRM Application

Keyword

Words or phrases extracted from the text of an email message or from a document/solution set stored in one of the Knowledge Base repositories. These words or phrases are identified by Oracle Text.

Knowledge Base

A repository of documents

Oracle Text

Component of the Oracle 8i Database, previously known as interMedia Text

Queue

A logical queue or classification that holds each agent's work items

Sample Message

A cleaned up message or piece of text whose contents are typical questions or inquiries associated to an Intent.

Sample Response

Cleaned up response or piece of text whose contents are responses to typical questions associated with an Intent.

Score

Signifies the relative importance of a particular keyword within an Intent, relates to Oracle Text processing.

Suggested Response Document

Standard email response document or solution set that is used to respond to customer inquiries by email