Oracle® eMail Center

Concepts and Procedures

Release 11*i*

November 2000

Part No. A86084-02

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Oracle eMail Center Concepts and Procedures, Release 11i

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Preface

Welcome to the Oracle Customer Relationship Management, Release 11i, suite of applications.

This Concepts and Procedures provides information and instructions to help you work effectively with Oracle Email Center.

This preface explains how Concepts and Procedures is organized and introduces other sources of information that can help you.

Intended Audience

This guide is aimed at the following users:

- Technical Service Representatives (TSR)

- Customer Service Representatives (CSR)

- Interaction Center Supervisors, Operations Managers, and System Administrators

This guide assumes you have the following prerequisites:

- Understanding of the company business processes

- Knowledge of products and services as defined by your marketing policies

- Basic understanding of Oracle

Structure

This manual is a compilation of the eMail Center online help system. The topics are organized into the following groups:

"Understanding eMail Center" provides overviews of the application and its components, explanations of key concepts, features, and functions, as well as the application's relationships to other Oracle or third-party applications.

"Using eMail Center" provides process-oriented, task-based procedures for using the application to perform essential business tasks.

Related Documents

For more information, see the following manuals:

- *Oracle eMail Center Installation and Configuration Guide*

Understanding Oracle eMail Center

This topic group provides overviews of the application and its components, explanations of key concepts, features, and functions, as well as the application's relationships to other Oracle or third-party applications.

This topic group covers the following topics:

Overview of eMail Center

How Does eMail Center Work?

Overview of eMail Center Modules

eMail Center Client

Bulk Outbound Tech Stack

eMail Center Templates

eMail Center Flexibility

Concepts and Terminology

eMail Center Architecture and Tech Stack

Web Server HTML Form Processing

Overview of System Process Flows

Inbound Process Flow

Unstructured Email Processing

Routing, Queuing, and Delivery

Web Form Processing

Structured Email Processing

Overview of eMail Center

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

eMail Center is a powerful enabler for rapidly implementing flexible self-service and process automation oriented eBusiness solutions, using email as a communication channel.

How Does eMail Center Work?

Incoming email can be broadly categorize into structured and unstructured types. Structured emails are created by filling out a form or a template, it can be any text template or an HTML form on the WWW. Unstructured emails are typical, free form text messages.

Oracle eMail Center invokes appropriate, customizable processes that are targeted to handle different types of inbound email interactions. Workflow processes are setup to automatically resolve inbound structured email. Unstructured inbound email is passed through Oracle interMedia Text processing to determine the intent of the message. Workflow processes are then setup to attempt automatic resolution of these interactions based on the message intent/classification. Inbound interactions that cannot be automatically resolved are routed to the appropriate human agent in the Interaction Center using both rule and skill based routing schemes.

Once an email message gets to an agent, the eMail Center provides tools and capabilities to maximize agent productivity and effectiveness by providing fully-formed suggested responses for inbound emails and a high-performance

point-and-click agent interface that minimizes the need for typing, includes a spellchecker, and the ability to attach or insert appropriate documents. Oracle eMail Center allows storage and retrieval of documents, URLs and images from Marketing Encyclopedia System (MES). eMail Center also allows interMedia text queries on both the Marketing Encyclopedia System (MES) and the Solution Management System (SMS) knowledge bases.

In addition to managing inbound email interactions, eMail Center provides capabilities to initiate and manage outbound interactions. System generated or external application generated notifications can be automatically sent as emails, whose format adheres to all the business practices configured into the system.

Email-based sales, marketing, and advertising campaigns can also be executed. Oracle eMail Center can process campaign lists, expand the campaign content material, add tracking tags, and send personalized emails to addresses in the list. eMail Center can also track responses to these emails and tie them into campaign effectiveness analyses.

Overview of eMail Center Modules

eMail Center provides system administration, operations configuration, and supervisor modules. The system administration module provides a graphical user interface for defining, viewing, monitoring, and controlling system behavior.

Operations configuration screens allow authorized Contact Center domain experts (Operations Managers) to configure operational rules or business practices for eMail Center, and to specify business process attributes.

The supervisor interface allows Contact Center supervisors or managers to monitor and adjust the real-time operations of the Contact Center (eMail Center) and perform reporting and business analysis functions.

With these capabilities, Oracle eMail Center extends the paradigm for email response management systems (ERMS). Going beyond basic email response management, it enables complete email interaction management and email based process automation, to deliver a sophisticated email interaction management solution.

eMail Center Client

The following diagram depicts the architecture of the client portion of eMail Center:
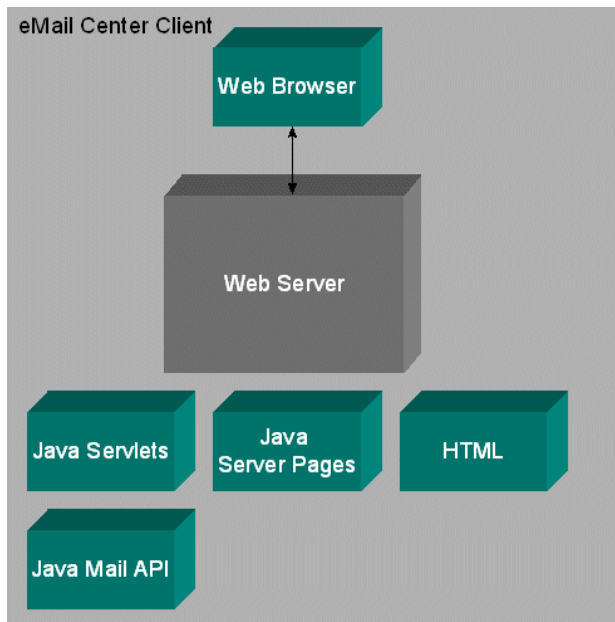
Web Browser
Container for displaying eMail Center Client GUI.
Displays folders, email, customer profile,
suggested responses, etc.

Web Server
Serves HTML pages and handles requests from
the browser client

Java Servlets
Handles communication with UWQ and eMail
Center server, spell-checking service, session
management, JMA wrapper

HTML
Oracle CRM Foundation Components to display
folders and other GUI components

Java Server Pages
GUI display

Java Mail API (JMA)
Interfaces with IM (wrapped by a servlet)

Bulk Outbound Tech Stack

The following diagram depicts the system flow and tech stack for bulk outbound:
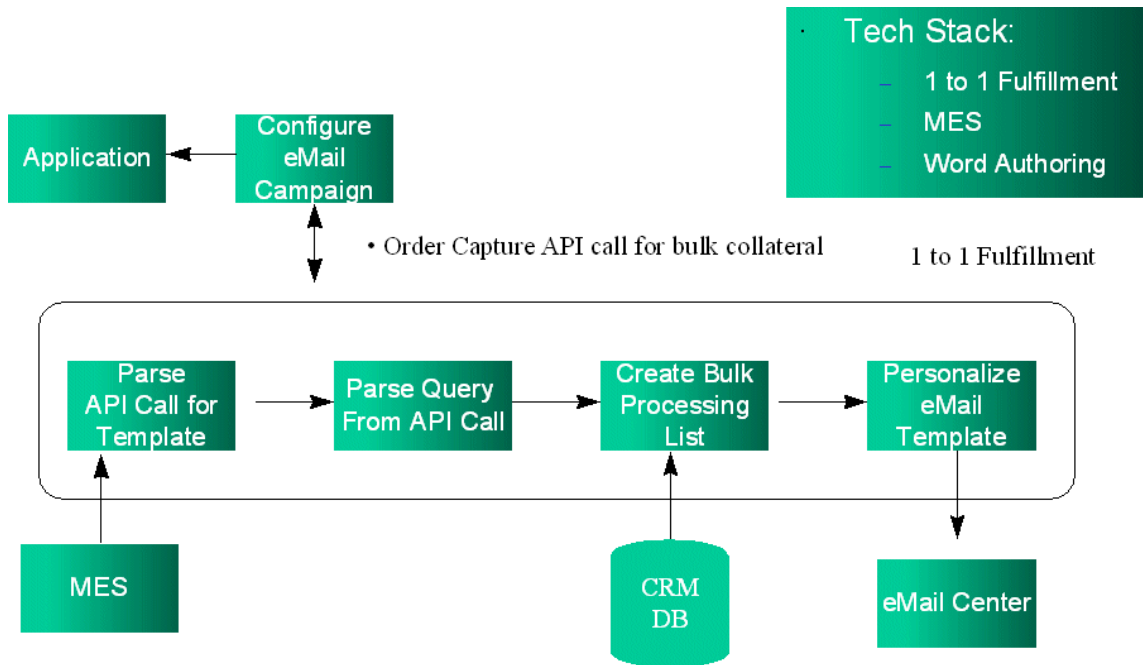
eMail Center Templates

Oracle eMail Center utilizes three different types of templates, including: HTML form templates, response templates, and process automation workflows.

HTML form templates are web forms that are filled in by the end-customer to submit structured requests. You can use the *Structured Email Template Creation Cookbook* and any HTML authoring tool to add eIM specific tags. eMail Center provides several sample templates, including: collateral request, service request, create order, event registration, schedule callback.

Response templates are complete responses that contain merge fields for pre-defined auto-responses. You can use any HTML or plain text authoring tool to create or customize these templates. eMail Center provides several sample templates, including: responses to collateral request, and service request.

Process automation workflows are workflow templates used to automate the process of resolving structured email requests. You use Oracle Workflow to build these workflow templates. eMail Center provides several sample workflows,

including: collateral request, service request, create order, event registration, and schedule callback.

eMail Center Flexibility

eMail Center extensively leverages Oracle products and technologies to deliver a highly reliable, scalable, flexible, and advanced solution. It is designed to integrate easily with Oracle CRM and ERM applications to email enable these applications and facilitate the implementation of end-to-end solutions.

Additionally, eMail Center pre-integration with Oracle Call Center product modules provides comprehensive service level guaranty, unified interaction channel management, and interaction center productivity & effectiveness maximizing capabilities.

While eMail Center will generate the most value for enterprises when integrated with Oracle CRM and ERM applications, its flexible design allows its use with third party systems with relatively little implementation effort. Oracle may also provide integration bridges for selected third party systems in the future.

Concepts and Terminology

The following list of concepts and terminology will help minimize miscommunication of information within the documentation.

Advanced Queueing: Advanced Queuing is a feature of the Oracle 8i database that will provide asynchronous, loosely-coupled communication between the eMail Center rules engine and the eMail Center server.

The eMail Center PLSQL rules engine will use AQ to inform the eMail Center server that a new email has arrived.

Agent: Also called a CSR (customer service representative). eMail Center agents respond to and resolve incoming interactions. Agents may also create outbound interactions.

Agent productivity tool: Product feature designed to increase the productivity and effectiveness of agents.

Attachment: A computer file sent along with an email message.

Attachment type: The file format for the attachment. Examples: Word document, Excel spreadsheet, Powerpoint presentation, etc.

Automated acknowledgement: A pre-composed (canned) email message sent back to the sender of an incoming message to acknowledge that the message was received. Additional static information (such as time frame within which a response can be expected from the interaction center) may also be included in the automated acknowledgement.

Automated response: A system generated response addressing the intent of the incoming message. Automated responses involve no human intervention.

Case: Term used to track and group all interactions and associated information related to a particular issue or related set of issues.

Classification: A label that identifies the intent of a message. A classification can be any word or phrase. In the eMail Center context, classifications are defined in the structured email template or in the unstructured email classification repository.

Classification set: A set of possible classifications for an unstructured message along with the associated metadata.

Collaboration: The process of engaging the assistance of additional people, within or outside the interaction center, to resolve a given interaction.

Conditional operator: The operation used to evaluate the relationship between a variable and a specified value.

Decision variable: The variable evaluated in the condition section of a rule.

Decision variable value: The value specified for a decision variable within a rule.

EIMS: Email Interaction Management System. A system that automatically services a significant proportion of incoming email interactions, intelligently routes the remaining interactions to the appropriate interaction center agents, provides agent productivity and interaction center management capabilities, and provides email based process automation capabilities.

eMail Center Rules API: When a new email enters the system, eMail Center will invoke a single eMail Center Rules API. This API will launch an eMail Center workflow. The eMail Center workflow will result in the email being processes. The eMail Center workflow may invoke eMail Center APIs in the process of processing the email.

The eMail Center rules workflow will be defined using Oracle Workflow Builder.

Email filtering: The application of rules to incoming or outgoing email messages to change the disposition of individual messages. Filtering rules normally evaluate conditions based on email header information and environmental conditions, and move the message or change its properties.

Email format: The base format for an email message. This can be plain text, HTML, or XML.

Email properties: The metadata associated with an email, including all system defined variables associated with the email.

eMail Center Server: The eMail Center Server receives notifications from the AQ. It retrieves the corresponding headers, themes etc. using IM APIs. This information is then sent to the MMS (Multi-Media Server) as a new email interaction with the data as key-value pairs.

Email tag: A special marker included in an email message to identify and track the message.

Email type: The email type describes the level of formatting or lack thereof, of the message content. It can either be structured, partially structured, or unstructured.

IMAP Server: The IMAP server is one of the primary components of Internet Messaging. It handles all incoming emails and allows retrieval of emails by clients via APIs (both java and PLSQL).

IM Rules: The Internet Messaging Rules API is a PLSQL API set that is invoked by IM when an incoming email arrives. IM Rules are a means of having incoming emails trigger specific actions.

Interaction: A contact between two parties.

interMedia Text: This component represents the tables and processes that represent the interMediaText feature of the Oracle 8i database.

eMail Center will make use of iMT's theme generation (and in the future, gist generation) features to classify incoming emails. However, eMail Center will not invoke iMT APIs directly. Instead, eMail Center will invoke eMail Center APIs that in turn perform iMT functions.

Level of service guarantee: A commitment made by the organization to respond to a specified percentage of incoming interactions with a specified time period. E.g., respond to 95 percent of incoming emails within 5 hours.

Message Store: The message store is an Oracle database used by Internet Messaging to store emails and all other email related data.

Multi-Media Server: The Multi-Media Server (MMS) provides access to a common routing engine. It holds the agent's state and distribution queues for all interactions (email, telephony, faxes, web calls).

MMS also contains the queue summary, which is summary information about the number of calls in each agent's queue organized by media type and routing classification.

Operations Manager: The call/interaction center manager responsible for the operations of the center. In terms of eMail Center the operations manager is defined as the 'interaction center domain expert who also manages interaction center supervisors.' The operations manager has the business process and operations requirements knowledge required to configure eMail Center.

Queue: A holding area for interactions before they are delivered to agents. Queues can either be agent queues, in which case they hold items for a single agent, or they can be agent group (ACD) queues that hold items for distribution to one of the agents belonging to the agent group.

Repository: A storage area on the file system or in a database system.

Resolved: The status associated with a closed case. It may take several interactions and responses to resolved a case.

Response: A reply to an incoming message that addresses the intent of the message, but may or may not resolve the interaction represented by the message.

Response fragments: Pieces of responses that can be added to an incomplete response or response template, to create a complete response.

Response template: A preformed but incomplete response that can be customized to create a complete response. Customization can be achieved automatically via merge fields and by manual modification of template contents.

Routing: The process of determining the most appropriate set of agents to service an individual interaction. Several routing schemes can be employed based on business rules and system configuration. Commonly used routing schemes are: message origination or delivery based routing; rules based routing; and skills based routing. Routing only determines the valid set of agents for that interaction and does not determine who the interaction should be delivered to unless only one agent is capable of handling the interaction in question.

Structured email: An email message that has been predefined in the system as being structured, and can be recognized by the system. At definition time, all the characteristics of the named structured email are specified, including the format, structured field tags, allowable values for corresponding field inputs, processing requirements, etc.

Structured email ID tag: A tag included in the email message that identifies the email as a structured email and specifies which predefined structured email it is.

Structured email template: The template that defines all the attributes, format, content requirements, and processing requirements for the named structured email.

Supervisor: A 'super-agent' in the interaction center who manages a group of agents. The supervisor monitors agent and interaction center performance, assigns and reassigns agents to queues or tasks, and intervenes to resolve escalated situations.

System administrator: An information technology professional responsible for the implementation and system level operation of interaction center systems.

Theme: A system generated concept intended to capture the classification or intent of an incoming message. Themes are generated only for unstructured messages, since by definition, the classification and intent of structured messages is known.

Unstructured email: Any email that is not recognized by the system as being a structured email.

Web Form: As it is utilized in eMail Center, a Web form is the Web based interface for generating a structured email message. When a Web form is filled in and submitted, a structured email is generated and sent to the appropriate eMail Center.

Work: Synonymous with an interaction. A work item may be generated by any media channel, e.g., telephone, email, fax, etc.

Work blending: The delivery of inbound and outbound work items of multiple types (emails, phone calls, faxes, etc.) to agents. The delivery is based on sophisticated algorithms that implement a set of rules used to determine which work item a given agent should receive when the next work item is requested.

Workflow: Business process or flow needed to resolve an interaction. In the context of eMail Center, workflow refers to Oracle Workflow, a product that allows for representation and automated execution of business processes. Workflow also refers to the process representation delivered to the Oracle Workflow engine.

eMail Center Architecture and Tech Stack

The following main components comprise Oracle eMail Center:

Desktop Agent Interface

A Java Server Pages (JSP) based application that runs on an agent's desktop in a browser. The supported browsers are Microsoft Internet Explorer 5.0 and higher and Netscape Navigator 4.5 and higher. It utilizes two Java Applets, an editor applet that allows the user to compose messages and select the font, color,

formatting, etc., and it also allows importing of images (both .gif and .jpg files) and the second is a hidden applet, which maintains a connection with the Universal Work Queue Selector. This applet allows the exchange of information between eMC and UWQ.

System Administration Interface

A Java Server Page (JSP) based graphical user interface allows defining, viewing, monitoring and controlling system behavior.

Operations Configuration Interface

A Java Server Page (JSP) based graphical user interface allows authorized interaction center domain experts (operations managers) to configure operational rules or business practices for eMail Center and to specify business process attributes.

eMail Center Server

Is made up of a Java Server and a few database components. The Java server delivers information derived from an email message to the OTM server for routing and delivery to an appropriate agent(s). The main database component is the workflow based rules engine that process all inbound email messages. It can be customized to process emails based on different email parameters.

Oracle Email Server (OES / IM)

Is the mail server. The emails here can be accessed through JMA – IMAP APIs or through PL/SQL APIs.

Database Configuration

Oracle Email Server and Oracle eMail Center can be configured to be installed on two separate database instances or on the same instance. Both configurations are supported.

Other Modules, Servers and Components

CRM Foundation Modules

eMail Center uses several features of the CRM Foundation product, such as the common MES (Marketing Encyclopedia System), Universal Work Queue, One-to-One Fulfillment, and Interaction History. Of these, MES facilitates the

evaluation of unstructured email. The other features essentially integrate eMail Center with the desktop agent and the rest of CRM.

Routing Server

Routes job items (telephony and email interactions) to agents and agent groups based on configurable skills and rules parameters.

OTM/MCM server

The Oracle Telephony Manager, sometimes called Multi Channel Manager, holds the state of all the agents, and maintains the distribution queues for all interactions. These interactions include email, telephony, faxes, and web calls. OTM/MCM drives the router (actually a server, too) to determine which agents are to receive an email or telephone call. OTM/MCM receives the email from eMail Center and sends it to the router.

The output of the router is a list of agents qualified to handle the interaction. Based on this list, OTM/MCM distributes the email. "Distribute" in this case means that it puts the email into the queue of an agent, or the queue of an agent group, that the router identified.

This process occurs once for every new email. Although many agents might see the email in their queue, only one agent will service the interaction. Upon delivering the email to an agent, OTM/MCM removes it from all other agent queues. When an agent selects the email from the queue, OTM/MCM fires an event to the agent client desktop. When this happens, the agent might see a screen pop with a subset of the information contained in the email interaction.

Apache server

Apache is a third party product that handles HTML messages, such as email, between the source database and the agent desktop. Some Oracle CRM and ERP products, such as Accounts Receivable, are forms driven. They require a forms server to interpret and display database information. Newer CRM products, like eMail Center, use HTML instead of forms. The Apache server and the internet browser work to display the information. The Apache server manipulates HTML email objects between the eMail Server database, sometimes call the Message Store, and the agent desktop (an email client) using HTTP. The agent desktop runs an internet browser, such as Netscape.

Application Configuration

These figures show a typical and an alternate configuration of the various servers.

Typical eMail Center Install
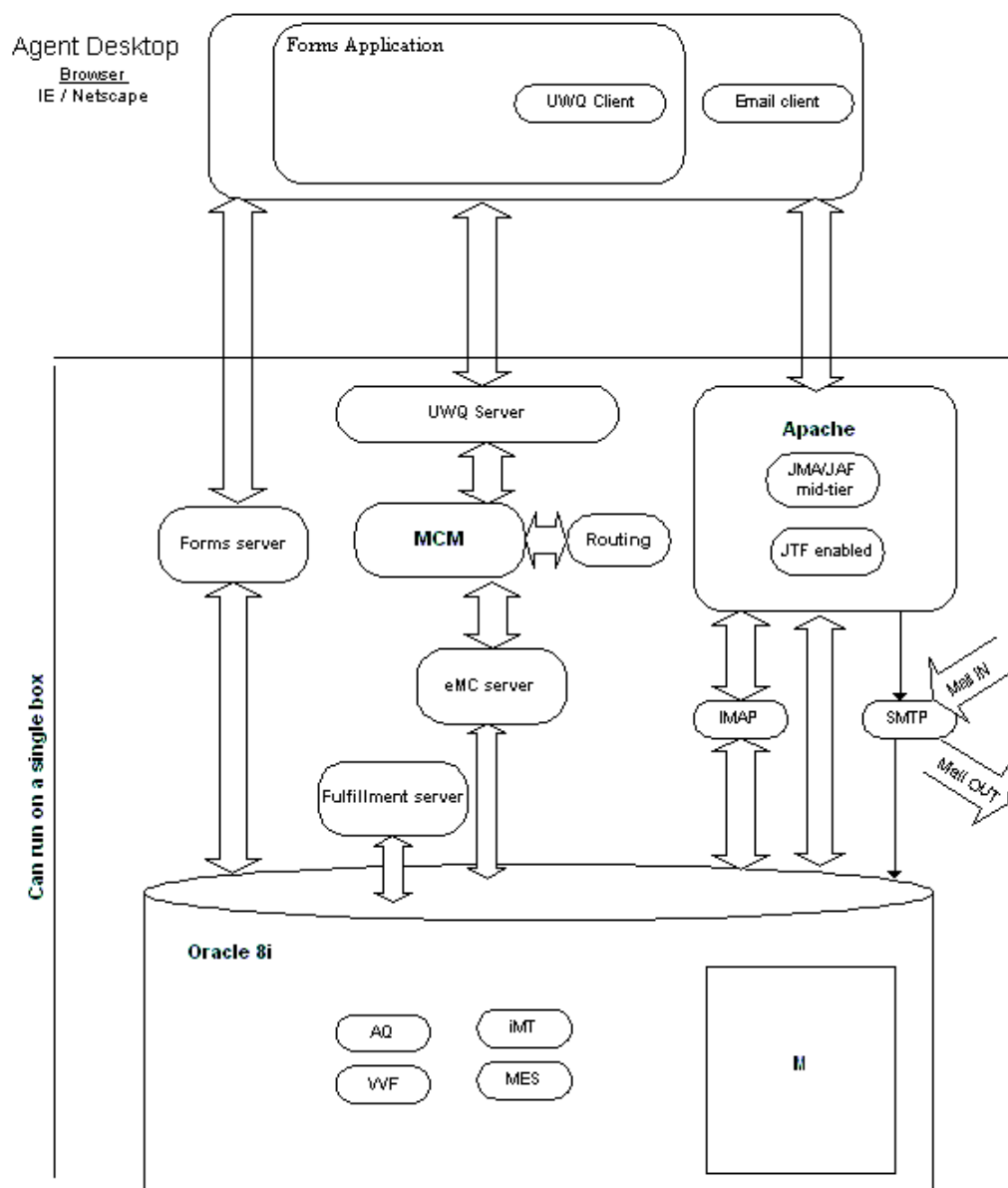
Non-Typical eMail Center Install
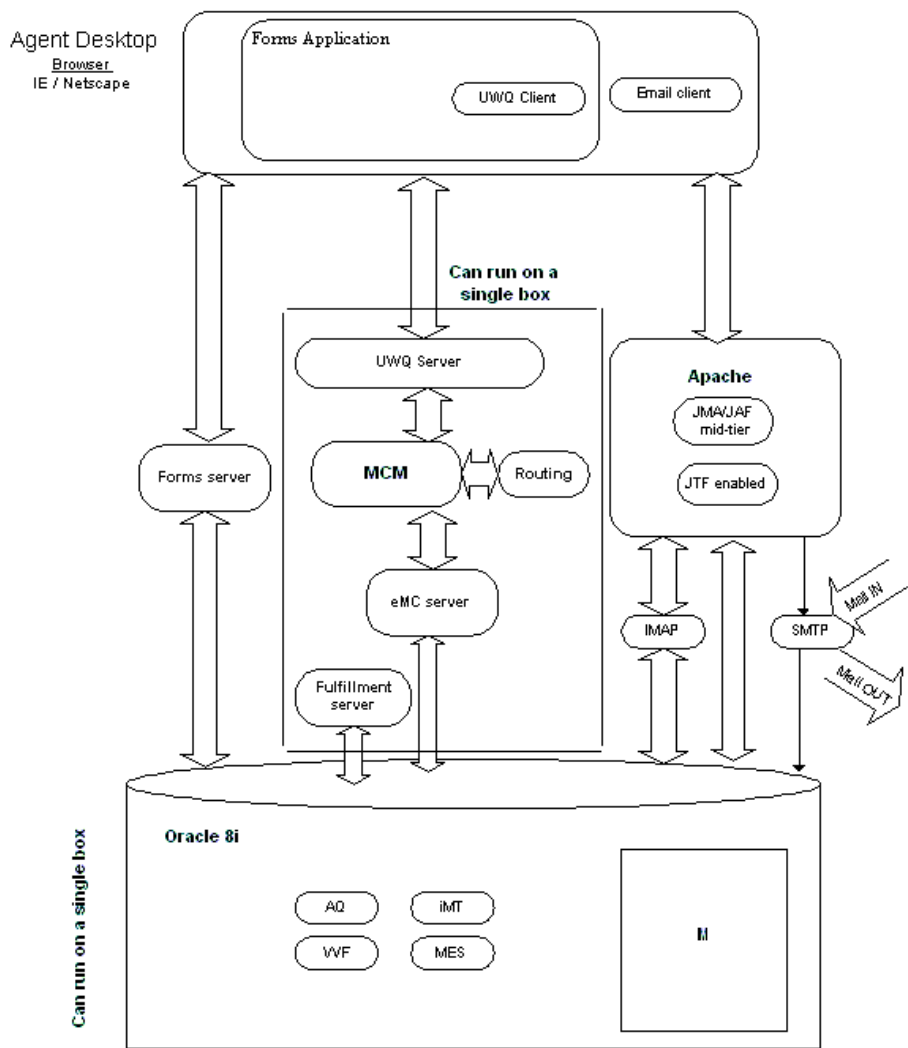
Email Processing

The eMail Center process flow diagram describes events that occur when the eMail Center handles inbound or outbound email messages, as well as events on the desktop during those events.

As defined earlier incoming emails can be either structured or unstructured based on the message content/format.

An outbound message can be a single message or a bulk mailing.

Single messages can be automatic replies to structured or unstructured inbound messages. Messages can also be created at the desktop by agents.

Bulk mailing is initiated by a CRM business application, such as Customer Care, that creates a mailing list and requests a message template.

Overview

eMail Center has three processes:

1. Inbound Server Processing.

2. Desktop Processing.

3. Outbound Server Processing.

Inbound Server Processing

Inbound processing begins when the eMail Server receives a customer message and passes it to the eMail Center Server.
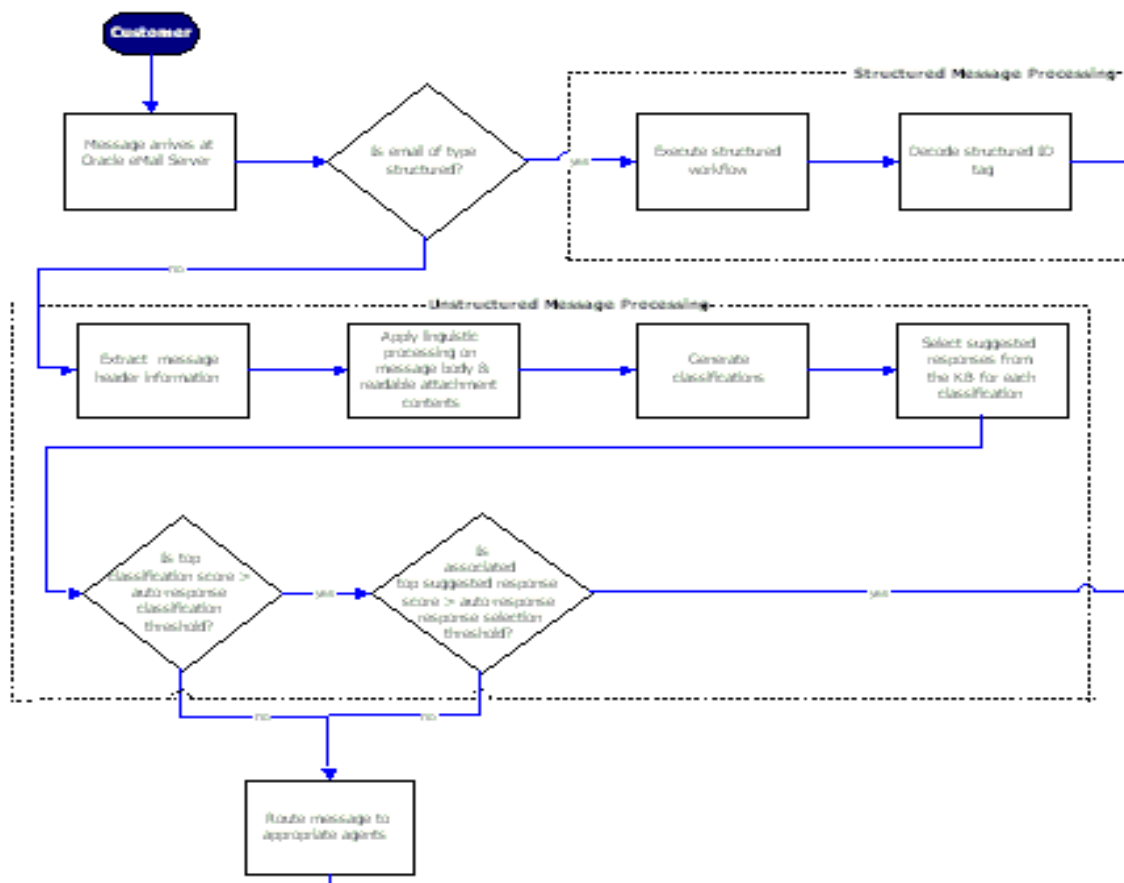
Customer

The customer creates an email message.

Message arrives at Oracle eMail Server

The server must be Oracle eMail Server.

Is email of type structured?

Email type can be either structured or unstructured. Structured email comes from a form the customer filled in on a web site or from a customer reply to an email questionnaire that had a structured format. In the case of a reply, the customer must be instructed to keep the email ID included in the original message and to answer the form without modifying its format.

If the email is type structured, go to **Structured Message Processing**

If the email is type unstructured, go to **Unstructured Message Processing**

Structured Message Processing

If the email is type structured, the process takes this path.

Execute structured workflow

eMail Center has one workflow, and it includes a structured path. The structured workflow path has several process paths available that are parallel to each other. The workflow process selects one of them.

Decode structured ID tag

The inbound structured email message contains an ID tag that identifies what structured email template it uses.

Invoke business application sub-workflow based on value of tag

eMail Center processes the email and selects the appropriate workflow based on specifications in the structured email. It might execute Fulfillment functions, then it can launch an Oracle business application, such as Customer Care.

Send automated response

(See outbound processing.) Whether or not eMail Center executes Fulfillment functions or launches a business application, it is capable of generating an automatic email response to the customer.

Unstructured Message Processing

If the email is type unstructured, the process takes this path.

Extract message header information

Read the header information associated with the email. It includes the sender's return address and the subject line.

Apply linguistic processing on message body & readable attachment contents

Extract readable attachments and concatenate their text to the email body. Using linguistic processing, generate themes for the concatenated message.

Generate classifications

Analyze the themes, comparing them to classification theme signatures in the classification table. Select the top classification matches.

Select suggested responses from the knowledge base for each classification

Suggest responses for the top classification matches. Do this by using a mix of the theme signatures identified in the email and theme signatures of the top classification matches. With the theme signature mix, get suggested responses from the knowledge bases, MES and SMS.

Is top classification score greater than the auto-response classification threshold?

If the classification score inspires confidence, then go to the next test.

If the classification score does not inspire confidence, route the message to an agent. Go to **Route message to appropriate agents**.

Is the associated top suggested response score greater than the auto-response response selection threshold?

If the response score inspires confidence, send the response. Go to **Send automated response (see outbound processing).**

Route message to appropriate agents

If either the classification score or the suggested response score do not inspire confidence -- were not greater than the respective threshold -- send the message to an agent for handling.

Send automated response (see outbound processing)

If both the classification score and the suggested response score do inspire confidence, send the response if auto-response is not turned off. It does not require agent intervention.

Desktop Processing

Desktop processing begins the first time when the agent requests an email work item in the Universal Work Queue (**UWQ**). It repeats itself each time the agent requests another email item.

The desktop process can handle either inbound email or outbound email. Inbound email normally is unstructured. Structured email does not require agent intervention unless the template is missing or an error occurs. The only outbound email the agent handles is that which the agent initiated manually. Outbound email generated by a business application does not require agent intervention.
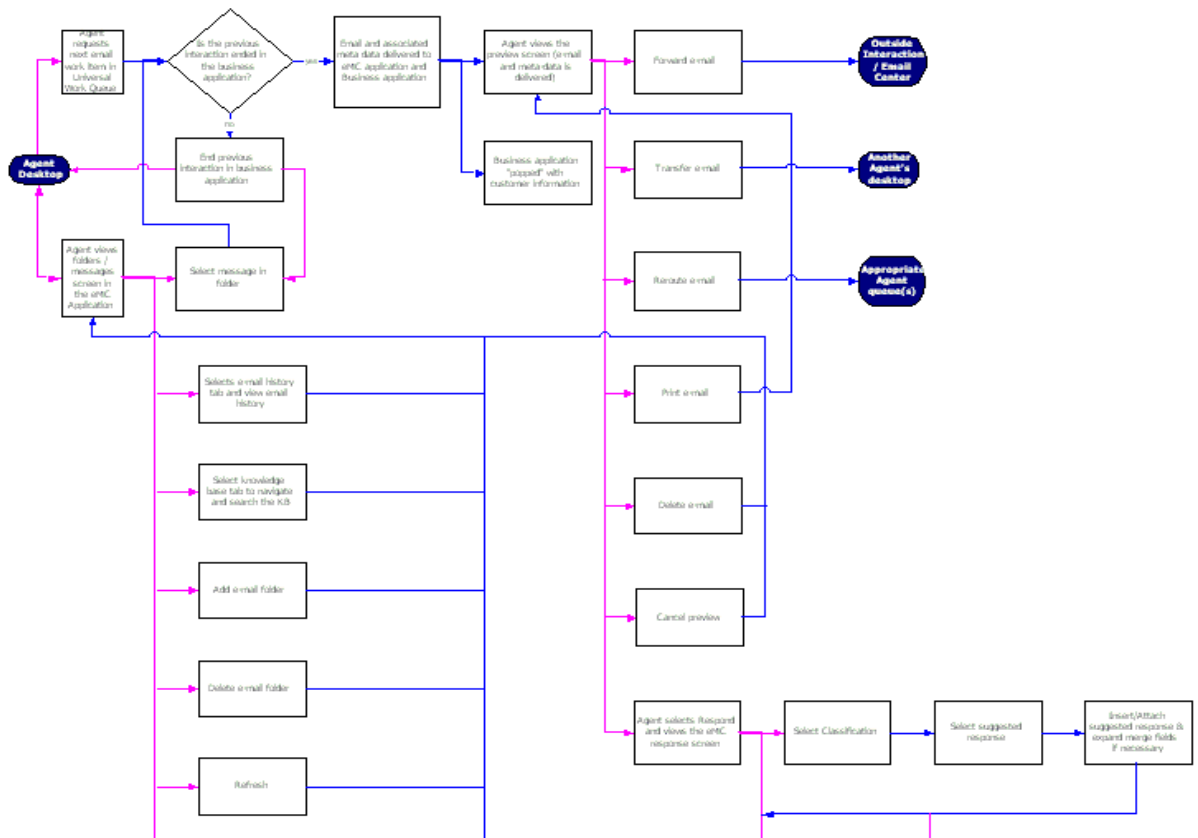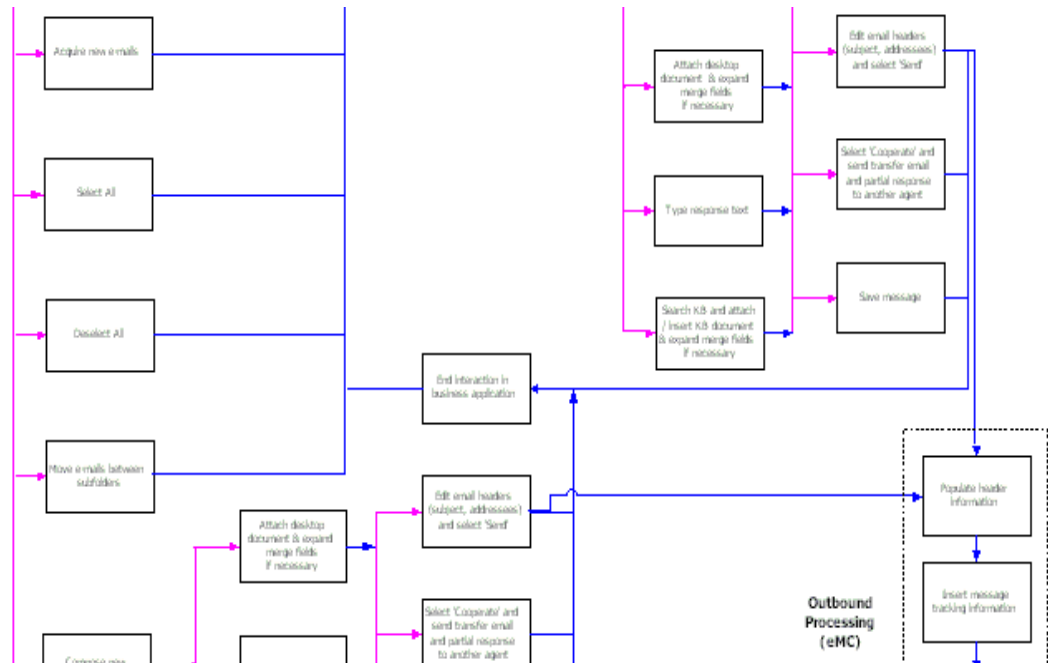
Agent Desktop

In an interaction center, agents can be assigned to multiple communications media, including inbound telephone calls, outbound telephone calls, and email. In this scenario, either the supervisor, the agent, or Oracle Interaction Blending indicate that the agent is working with email.

The agent begins working with email by requesting an email item from the Universal Work Queue.

At the end of the each email item the Desktop Processing loop returns to this point and presents the agent with two options:

- **Agent requests next email work item in Universal Work Queue**
- **Agent views folders / messages screen in the eMC (eMail Center) Application**

Agent requests next email work item in Universal Work Queue

The agent begins one email cycle by requesting an email item from the UWQ.

Is the previous interaction ended in the business application?

Normally the agent handles only one customer interaction at a time. If Customer Care or some other business application still has an open interaction, it must close the interaction before UWQ will issue an email item to the agent.

Select message in folder

If no interaction is open, then the agent can select a message from one of the folders.

Email and associated meta data delivered to eMC application and business application

eMail Center releases an email item to the agent. This includes the meta data, which is message header information and other properties.

Business application "popped" with customer information

If the agent is in a business application, such as Oracle Customer Care, eMail Center sends the message to that application. The message meta data frequently contains enough information for the business application to find the customer's record -- assuming an existing customer -- and pops it on the screen.

Agent views the preview screen

The agent can preview the message before responding to it by clicking the subject of the message in the inbox. At this point, the agent is looking at a preview of the

email message, and has not taken any action on it. The agent could cancel the preview and request another email item.

The agent has several options to choose amongst that include:

- **Forward email**

  Forward the email outside eMail Center or outside the interaction center.

- **Transfer email**

  Transfer the email to another agent handling the same account. For example, an agent assigned to the "Support" account can only transfer emails to other agents handling the "Support" account.

- **Reroute email**

  Reroute the email to another agent queue. This might indicate that the workflow has an error in its agent group routing.

- **Print email**

  Print the email and return to the preview.

- **Delete email**

  Delete the email and return the agent to a display of email folders and message screens. Go to **Agent views folders / messages screen in the eMC Application**.

- **Cancel preview**

  Cancel the preview without taking any action. Return the agent to a display of email folders and message screens. Go to **Agent views folders / messages screen in the eMC Application**

- **Respond**

  Take action on the email. Go to **Agent selects Respond and views the eMC response screen**.

Agent selects Respond and views the eMC response screen

In choosing to respond to the email, the agent has several choices, including:

- Accept the suggested classification and response. This leads to three nodes in the process flow:

  - **Select Classification**

  - **Select suggested response**

  - **Insert/Attach suggested response**

These steps are self explanatory. The agent can repeat them several times for each issue marked up in a multi-issue email, and for as many classifications and responses as are available in the suggestion lists.

- **Attach desktop document**

- **Customize the response**

  - The agent can customize the response by typing free form text using the full-featured editor available. The agent may also wish to respond to the message manually rather than use a suggested response. In this case the agent either type the message or can select a "template" from the standard set of templates available.

- **Search KB (knowledge base) and attach / insert KB document**

  These three options, **Attach**, **Type**, and **Search**, also are self explanatory. They present three options in the process flow as well:

  - **Edit email headers (subject, addresses) and select 'Send'**

    When the agent selects Send, the email is sent to the node labeled, **To Outbound Server Processing (Insert message tracking information)**

  - **Select 'Cooperate' and send transfer mail and partial response to another agent**

  - **Save message**

    On completing each of these three options, **Edit**, **Cooperate**, or **Save**, the process flow takes the agent to the node, **End interaction in business flow**.

End interaction in business application

This is the end of one email item process cycle. The agent starts another cycle in one of the first nodes:

- **Agent views folders / messages screen in the eMC Application**

- **Agent requests next email work item in Universal Work Queue**

Agent views folders / messages screen in the eMC Application

This is an alternate point for the agent to begin an email cycle, the first being **Agent requests next email work item in Universal Work Queue**.

If the agent chooses this path, the Desktop Process offers these options:

- **Select message in folder**

- **Select email history tab and view email history**
- **Select knowledge base (KB) tab to navigate and search the KB**
- **Add email folder**
- **Delete email folder**
- **Refresh**
- **Acquire new emails**
- **Select All**
- **Deselect All**
- **Move emails between subfolders**
- **Compose new message**

    These options are self explanatory. When the selected option is completed, the Desktop Process returns the agent to this node.

    One of the options, **Compose new message**, takes the agent though several process nodes before returning to this node.

Select Message in folder

This entry in the description is repeating an option of its parent node. It is needed to continue describing the process of this node.

If the agent selects a message in the folder, Desktop Processing routes the agent to the same flow path described earlier:

- Go to the first node, labeled **Agent requests next email work item in Universal Work Queue**, and
- Look at the next step in the Desktop Processing, labeled **Is the previous interaction ended in the business application?** The process follows that path.

Compose new message

This entry in the description is repeating an option of its parent node. It is needed to continue describing the process of this node.

If the agent chooses to compose a new message, Desktop Processing offers these options (they are similar to, but slightly different from, the options offered by the **Agent selects Respond and views the eMC response screen** node):

- **Attach desktop document**
- **Type response text**

When selecting to respond manually, the agent has two options not shown in the process flow:

- Respond to messages manually, typing free form text

- Respond to messages using a response template. Here the agent manually selects a template category. Then the Merge screen appears with a list of suggested responses under the selected template category.

- **Search KB (knowledge base) and attach / insert KB document**

These three options, **Attach**, **Type**, and **Search**, also are self explanatory. They present three options in the process flow as well:

- **Edit email headers (subject, addresses) and select 'Send'**

    When the agent selects Send, the email is sent to the node labeled, **To Outbound Server Processing (Insert message tracking information)**

- **Select 'Cooperate' and send transfer mail and partial response to another agent**

- **Save message**

    On completing each of these three options, **Edit**, **Cooperate**, or **Save**, the process flow takes the agent to the node, **End interaction in business flow**.

End interaction in business application

This is the end of one email item process cycle. The agent starts another cycle in one of the first nodes:

- **Agent views folders / messages screen in the eMC Application**

- **Agent requests next email work item in Universal Work Queue**

To Outbound Server Processing (Insert message tracking information)

This node points to the Outbound Server Processing flow chart. In that flow chart, the process continues immediately at the **Insert message tracking information** node in **Send Response**.

Outbound Server Processing

Outbound Processing can begin one of three ways:

- It can begin when a business application, such as Customer Care, starts a bulk mailing campaign.

- In that same business application, an agent or a process can create a single email message, also causing Outbound Processing to begin.

- Earlier in this document, Desktop Processing caused Outbound Processing to begin when an agent selected the Send option either while responding to an inbound email or while creating a new email.

The Outbound Process has a single path with three entry points:

- **Business application creates a mailing list**

   The business application is executing a bulk mailing campaign.

- **Application sends outbound request to eMC (eMail Center server)**

   The business application is sending a single message.

- **Insert message tracking information**

   The agent selected Send in Desktop Processing while responding to an inbound email or while composing a new email.

This description starts at the beginning of the Outbound Processing path and continues to the end.
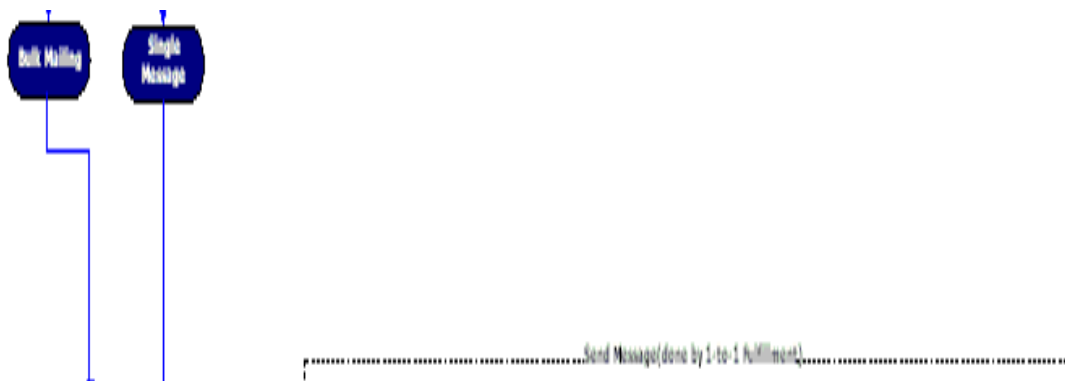
Business Application
A business application, such as Customer Care, starts a bulk mailing campaign, or an agent or a process creates a single campaign.

Bulk Mailing
This is the first entry point. The business application starts a bulk mailing campaign.

Business application creates a mailing list

In this node, the business application has created a mailing list, probably by querying the customer database and merging the appropriate information with a mailing label form.

Single Message

This is the second entry point. In the business application an agent or a process created an email message.

Application sends outbound request to eMC

Obviously the single message is inserted here.

Send Response

Send Response is a group of nodes in the eMail Center process that generates a message, one at a time in the case of bulk mailing, to be sent to the eMail Server on its way to the customer.

The group of Send Response nodes are:

- **Select message template**

- **Expand personalization / merge fields**

- **Populate header information**

  Header information includes the customer's email address in the To field and a title for the Subject field.

- **Insert message tracking information**

  This is the third entry point into the Outbound Processing path. Desktop Processing generated this information and inserted it here.

- **Send message**

  The eMail Center Server sends the message to the eMail Server.

Web Server HTML Form Processing

The following diagram depicts how the web server processes HTML forms.
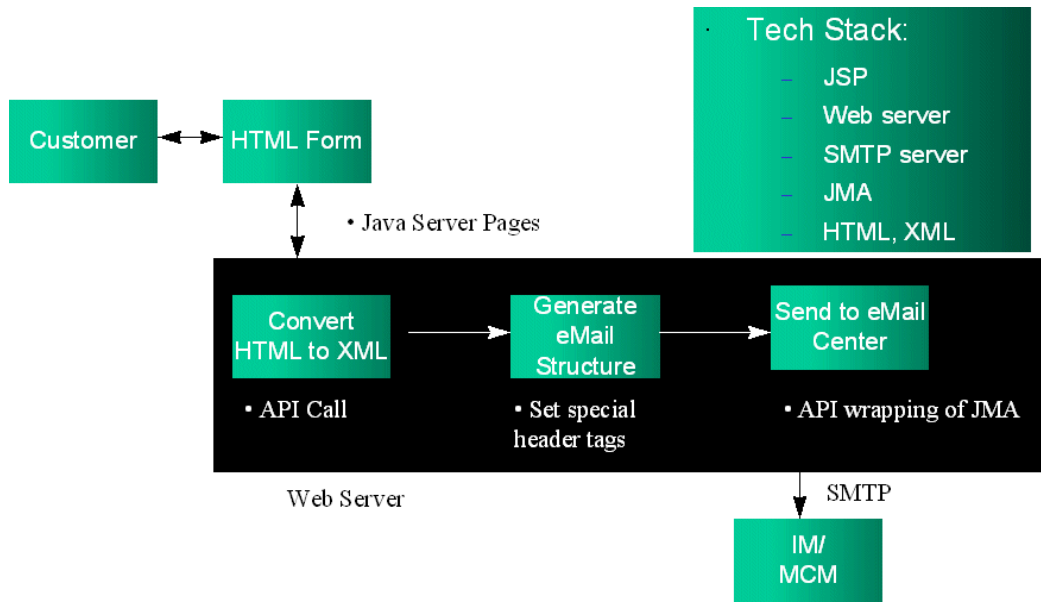
Overview of System Process Flows

Click one of the following to view its system process flow diagram:

Inbound Process Flow

Unstructured Email Processing

Routing, Queuing, and Delivery

Web Form Processing

Structured Email Processing

Desktop Interaction Delivery

Automated Outbound Processing

Inbound Process Flow

Email arrives over Internet to MTA / SMTP Gateway	OES notifies eMC of new message via a DB AQ	eMC unstructured workflow dequeues next notification in AQ

- Virus and Spam check software installed at the MTA scans message

- Message delivered to OES

- If message is addressed an eMC account, OES runs eMC workflow to notify eMC of the new message via a DB AQ

- If notification successfully delivered to AQ, OES delivers the email to the appropriate email inbox

- If AQ notification is unsuccessful, OES delivers the email to the retry folder for the account

- The workflow is completed and OES processes the next incoming email

- Workflow calls APIs to extract information from email

- If structured email ID is found, the structured processing workflow is invoked

- If structured email ID not found, continues with unstructured workflow processing

Unstructured Email Processing

Execute 'pre-processing' section of unstructured WF	Execute classification & response selection section of unstructured WF	Determine if auto-response can be sent

- Workflow nodes to determine if email needs to be forwarded to another eMail Center, auto-acknowledgment needs to be sent, email needs to be forwarded another account, etc.

- If execution of pre-processing workflow nodes does not result in closure of the interaction, execute classification & response selection portion of the WF

- Extract readable attachments, concatenate to email body, and generate themes for the concatenated message

- Analyze themes against classification theme signatures (TS) in the classification table and select top match classifications

- For each top match classification, use mix of the response TS for this classification & the TS of the incoming email to get top match suggested responses from the knowledge bases (MES & SMS

- If confidence scores on top classification & top suggested response are higher than the user defined threshold and auto-response is not turned off, generate auto-response

- Call Fulfillment APIs with appropriate header, hidden tag, message content, and query data (if necessary) specifications. Fulfillment sends out email

- If auto-response not warranted, the derived classifications and suggested responses are stored in a table and made available to the eMC desktop and processing continues

Theme Matching Repositories Include:

- Response template repository

- Previous responses repository

- MES

- Support knowledge base

- User defined repositories

Routing, Queuing, and Delivery

Complete any additional sections in unstructured WF	Determine routing and queue email interaction	UWQ Server instructs MCM to send interaction to a specific agent

- E.g., workflow nodes call APIs to get customer information from the CRM applications and use this information for evaluating business rules

- Determine what key / value pairs should be passed to MCM / Routing server

- Place interaction in AQ2 for pick up by MCM

- MCM dequeues interaction

- Interaction sent to routing server which evaluates the appropriate static or dynamic route to provide destination agents

- Interaction item is then placed in the appropriate agent queues within the MCM queuing infrastructure

- UWQ server keeps track of interactions in the MCM queues

- UWQ tells MCM which interaction to deliver, and to whom, based either on instructions from the Interaction Blending server, the next item of the same media for a particular agent, or an explicit 'get next' request from an agent

- MCM passes metadata associated with the interaction to UWQ and instructs eMC server to deliver the email to the agent's folder

Web Form Processing

End user at customer web site fills in structured web form	→	Submitted data is converted to XML by web server web form processing servlet	→	XML document converted into email & sent to an eMC account

- E.g., workflow nodes call APIs to get customer information from the CRM applications and use this information for evaluating business rules

- Determine what key / value pairs should be passed to MCM / Routing server

- Place interaction in AQ2 for pick up by MCM

- MCM dequeues interaction

- Interaction sent to routing server which evaluates the appropriate static or dynamic route to provide destination agents

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- MCM passes metadata associated with the interaction to UWQ and instructs eMC server to deliver the email to the agent's folder

Structured Email Processing

Unstructured WF invokes structured workflow	The appropriate workflow sub-process is invoked	Control is returned to the unstructured email processing workflow

- When structured email ID is found in an incoming email, structured email processing workflow is invoked

- Email header and body information are retrieved

- Email structure & content validated. Web (HTML) forms as well as plain text forms can be processed (plain text in R2)

- Based on the structured email ID the appropriate workflow sub-process is executed.

- The sub-process automates the process associated with resolving the email request. An email can be automatically sent out per the workflow specifications

- If an errors occurs, the error code is returned to the unstructured processing WF & the email is processed as an unstructured email

- If no error is returned, unstructured processing is terminated

- Interaction history events are recorded at appropriate points during the structured email workflow processing

Desktop Interaction Delivery

Knowledge Repositories Accessible From the Agent Desktop Include:

- Response template repository
- Previous responses repository
- MES
- Support knowledge base
- User defined repositories

Automated Outbound Processing

Application calls Fulfillment API to send single or bulk outbound email	→	Fulfillment creates personalized email(s)	→	Email(s) with embedded tags are sent out

- Application specifies the message template (content) for the outbound email.

- Application specifies standard header values and any extended header (hidden tag) key / value pairs

- If a query is associated with the specified template, Fulfillment runs the query and expands merge fields in the template. A message template can have only one query, but can have multiple merge fields if corresponding merge field key / value pairs are specified in the API call

- The personalized message is converted into an email and the appropriate header and extended header values are filled in.

- The personalized email(s) with embedded tracking tags is sent

- eMC can detect bounced messages, auto-responses, and other responses and process these based on the embedded tags in the email.

Usage Scenarios

The following scenarios are described here to illustrate eMail Center usage potential.

eMail Center Usage Options

Interaction Initiated...	Interaction Resolution	Inbound Scenarios

By Customer
 	
  -using web form
 	
  -using email client
	Automatically, without human intervention	<u>For interactions that cannot be resolved automatically</u>:
		
		  -generate suggested responses and route to CSR

By business application or other system (including another eMail Center)	Responses generated automatically, but human intervention used for verification and modification	<u>For interactions that can be partially or fully satisfied automatically</u>:
		
		  -invoke business application to deliver self-service or
		
		  -invoke knowledge management system to deliver automated service request resolution or

By CC agent (CSR)	Manually, by CC agent	-collaborate with another eMail Center to enable self-service or -automatically satisfy requests that can be fully addressed by available documents or canned responses

eMail Center Email Processing Options

Email Type	Inbound Options	Outbound Options
Structured	-Send to CRM/ERM application -Send to knowledge management system -Retrieve response documents from document repository -Collaborate with another eMail Center -Send to agent (CSR) -Combinations of the above	-Notification initiated by CRM/ERM application -Campaign or other bulk mailing -Agent generates messages
Unstructured	-Retrieve response documents -Send to agent (CSR) -Retrieve response documents and send to agent	-Not recommended

Inbound Scenarios

Scenario 1: Unstructured email – service request

Customer composes message (using any email client) to company describing problem with customer account and requesting resolution

1. Email client sends free-form email to company. Email is received by the company's eMail Center.

2. eMail Center gets customer information and generates classifications for the email message based on known classifications.

3. Responses are composed for each of the potential classifications.

4. Email along with pre-composed suggested responses are routed to the appropriate agent (CSR).

5. CSR resolves problem and sends reply to customer.

Scenario 2: Structured email – order submission

Customer places order for product on company Web site – need to get product availability and shipping time information from supplier's system

1. Structured email sent to eMail Center.

2. eMail Center processes the email and selects the appropriate workflow based on specification in the structured email template for order submissions for the specified product.

3. eMail Center creates and sends a structured email message to the supplier's eMail Center requesting availability and shipping time for ordered product (distributor's eMail Center selects appropriate remote workflow).

4. Based on response from supplier's eMail Center, the company's eMail Center creates enters the order into the system.

5. An email response is sent to the customer's address, providing details for the purchase.

Scenario 3: Structured email – collateral request

Customer cannot find product collateral on company Web site -- requests it.

1. Structured email sent to eMail Center.

2. eMail Center processes the email and selects the appropriate workflow based on specification in the structured email template for the collateral request.

3. The workflow selects the appropriate documents from the document repository.

4. eMail Center automatically composes the response and attaches the requested product collateral to the response.

5. The response is automatically sent out to the customer.

Scenario 4: Structured email – problem report

Customer fills in Web form to report problem with previously purchased product

1. Structured email sent to eMail Center.

2. eMail Center processes the email and selects the appropriate workflow based on specification in the associated structured email template.

3. The workflow process creates a service request by calling the appropriate APIs for the service application.

4. The problem report information is then sent to the knowledge management system which either finds a solution (or set of solutions) to the problem, specifies additional information need to find the solution, or cannot converge on a solution.

5. If the system finds a solution or specifies additional information needed, the system can generate the corresponding message and send it to the customer.

6. If not, the interaction is routed to a live agent who resolves the problem and send an email response to the customer.

Outbound Scenarios

Scenario 1: Outbound interaction – email notification

Payment is overdue, business application needs to send email reminder to customer

1. Business application detects that customer's payment is overdue and generates a request to eMail Center to send out a notification to the customer.

2. Business application request includes information regarding the message template to be selected, customer information, and email delivery options.

3. eMail Center uses request information to compose the email, expand any merge fields in the message template, and send the notification to the customer.

4. The outgoing email is tagged to uniquely identify the message and its associated intent / classification so that any responses to the message can be accurately classified and processed accordingly.

Scenario 2: Outbound interaction – email campaign

Company targets selected customers for email based sales promotion campaign

1. The campaign is defined in the sales automation application.

2. The sales automation application sends a request to execute the email campaign to eMail Center.

3. The request contains information about the email template to be used, the campaign identification information, and the response processing rules, along with the list of customers / prospects and associated information.

4. eMail Center creates individual email messages to all the addressees in the campaign list, tags the messages individually, and sends the messages to the target audience.

5. Response to the campaign mailing are tracked and processed according to rules defined for that particular campaign.

Scenario 3: Outbound interaction – agent initiated
CSR creates new message to follow up on phone conversation with customer

1. Agent selects the message template and fills in the relevant information.

2. Agent modifies message sending options if necessary and selects the classification and processing rules for responses to the message.

3. Message is sent out the customer, and any responses are tracked and processed according to the specified processing rules.

Processing Overview

This overview is intended to provide a sense for the processing that needs to occur within the product. The description does not cover all the steps associated with eMail Center's processing of email interactions. Processing steps in the actual product could be significantly different from those described here, if additional architectural or design work dictates the need to add, delete, or modify processing steps.

Click one of the following topics to view more information:

Inbound Processing

Outbound Processing

Inbound Processing

eMail Center accepts structured as well as unstructured emails. It either recognizes an inbound email as corresponding to one of the pre-registered structured

templates or it attempts to map the inbound email to and transform it into a pre-registered structured template.

Structured Email

If the incoming email is successfully classified as a recognized structured email, the information in it is packaged and delivered to the appropriate workflow that automates the business process required to satisfy the interaction. The outcome of the business process can be sent back to eMail Center and an appropriate response can be automatically created and sent back to the entity (computer system or human being) that initiated the original interaction.

Unstructured Email

For an incoming email that cannot be successfully classified as a recognized structured email, the eMail Center attempts to match the themes generated for the email with themes for:

- pre-defined structured email templates

- pre-classified unstructured email request examples

- items in the document repository

- pre-defined response templates

- responses to previous interactions

- items in user-defined repositories to classify the email. Classification can also be assigned based on user-configured rules.

Based on this classification, ranked (and scored) suggested responses are formulated and the original email, along with the suggested responses, are routed to the most appropriate agent based on various routing schemes (rules based, skills based, etc.), agent availability and user defined business rules.

Agents then have the ability to redirect the inbound interaction to another agent, satisfy the interaction themselves, specify a workflow to collaborate with others in the organization to satisfy the interaction, or specify a workflow to automate a business process.

Outbound Processing

Outbound interactions can be automatically created notifications generated by business application or campaign mailings; or messages initiated and composed by someone logged in to eMail Center (agent or supervisor).

For outbound notifications, the request is delivered to eMail Center by the business application via an Advanced Queuing queue in the database. The request contains all the information necessary to create the email message in eMail Center.

eMail Center extracts the information and creates and sends the message based on this information.

The message template to be used for the email notification is first selected. The appropriate merge fields in the template are then filled in and additional message content fragments and information associated with the addressee are fetched from the appropriate repositories and included in the message.

eMail Center then sets the message sending options associated with the message and inserts the appropriate tracking tags into the email. Outbound message filters are then applied to the message (to enforce business rules for outgoing messages) and the message is sent to the addressee.

Responses to the message are tracked and processed according to the rules defined in the notification request.

For email campaign execution requests, a list of addressees an associated information is provided to eMail Center, which creates individual messages for each entry in the list, and sends out the emails as described above. Responses to campaign mailings are processed based on rules defined in the campaign execution request.

For agent initiated outbound interactions, a process similar to the ones described above is initiated. For these cases, the agent, rather than the system selects the appropriate template, modified the default message sending options, and inserts the appropriate content into the message. Other steps in the process are carried out by the system.

Using Oracle eMail Center

This topic group provides process-oriented, task-based procedures for using the application to perform essential business tasks.

This topic group covers the following topics:

Viewing and Modifying Agent Preferences

Viewing Messages

Responding to Messages

Responding to Messages Manually

Responding to Messages Using a Response Template

Printing Messages

Searching for Messages

Sorting Messages in Your Mailbox

Composing Messages

Selecting Text Formatting

Deleting Messages

Cooperating With Other Agents

Viewing and Modifying Agent Preferences

Use this procedure to view and modify agent preferences.

Prerequisites
A valid login ID must be set up for you by the system administrator before you can view or modify preferences.

Steps
1. Click the Preference tab to display your preferences.
2. View and modify your preferences.

3. Click **Apply**.

   The Preference screen updates to display your new preferences.

4. Click **OK** to return to the My Messages screen.

References

Viewing Messages

Responding to Messages

Printing Messages

Composing Messages

Deleting Messages

Cooperating With Other Agents

Viewing Messages

Use this procedure to view messages.

Prerequisites

A valid login ID must be set up for you by the system administrator before you can view messages.

Steps

1. Click the Messages tab.

   The My Email Messages screen appears.

2. Click the desired folder in the Folder List tree.

   The messages in the selected folder display.

References

Viewing and Modifying Agent Preferences

Responding to Messages

Printing Messages

Composing Messages

Deleting Messages

Responding to Messages

eMail Center allows you to respond to messages in several ways. You can type a manual response, or select from a list of response templates that automatically provide text for a response.

Select one of the following for more information:

Responding to Messages Manually

Responding to Messages Using a Response Template

Responding to Messages Manually

Use this procedure to manually respond to messages.

Prerequisites

A valid login ID must be set up for you by the system administrator before you can respond to messages.

Steps

1. Click the subject heading of the desired message.

    The Respond screen appears, with the sender's name already typed in the **To** field and the subject heading already typed in the **Subject** field.

2. Type your response in the provided field.

3. Click **Send**.

References

Viewing and Modifying Agent Preferences

Viewing Messages

Responding to Messages

Printing Messages

Composing Messages

Deleting Messages

Responding to Messages Using a Response Template

Use this procedure to respond to messages using a response template.

Prerequisites

A valid login ID must be set up for you by the system administrator before you can respond to messages.

Steps

1. When viewing the email message, click **Respond**.

   The Respond screen appears, with the sender's name already typed in the **To** field and the subject heading already typed in the **Subject** field.

2. From the classification category list, click the classification category that most closely matches the desired response.

   The pop-up screen appears with a list of the suggested responses under the selected template category.

3. From the Suggested Responses list, click the response title that most closely matches your desired response.

   > **Note:** eMail Center automatically ranks or scores the suggested responses on a scale of one to one hundred percent, based on key words in the message body.

4. Type the required data (if applicable) in the fields provided.

5. Click **Insert**.

   eMail Center inserts the template text into the specific information in the email message and displays the merged response.

6. If you wish to provide additional information, click the **Insert** or **Attach** button (depending on how you want the information attached to the email).

   The additional information message is inserted or attached to the original email message.

> **Note:** If you elect to send the information as an attachment to the email, eMail Center asks you to provide a filename for the attachment.

7. Click **Send** to send the message.

References

Printing Messages

Use this procedure to print messages.

Prerequisites

A valid login ID must be set up for you by the system administrator before you can print messages.

Steps

1. Click the desired message to view it.

   The Preview screen appears, displaying the selected email.

2. Click **Print**.

   The Print Mail screen appears.

3. Click the appropriate checkbox and click **OK**.

   The email prints on the designated printer.

References

Viewing and Modifying Agent Preferences

Viewing Messages

Responding to Messages

Searching for Messages

Composing Messages

Deleting Messages

Searching for Messages

Use this procedure to search for messages.

Prerequisites

A valid login ID must be set up for you by the system administrator before you can search for messages.

Steps

1.   From the My Email Messages screen, click **Acquire Messages**.

2.   Your mailbox updates to reflect new messages.

References

Viewing and Modifying Agent Preferences

Viewing Messages

Responding to Messages

Printing Messages

Composing Messages

Deleting Messages

Sorting Messages in Your Mailbox

eMail Center provides several ways to sort or filter the messages in your mailbox. You can sort in ascending or descending order by any of the following:

- From - sorts alphabetically (A to Z / Z to A)

- Subject - sorts alphabetically by first letter of subject heading

- Date Sent - sorts by the date the email was sent (most recent / least recent)

- Status - sorts by the assigned status of the email (highest to lowest / lowest to highest)

- Classification - sorts by the classification level

Use this procedure to sort messages in your mailbox.

Prerequisites

A valid login ID must be set up for you by the system administrator before you can sort messages.

Steps

1. From the My Email Messages screen, click the desired column heading (**From**, **Subject**, **Date Sent**, **Status**, or **Classification**).

   A small triangle appears next to the selected column header.

2. Click the triangle to switch between ascending and descending order for the sort.

   The triangle will point in the direction of the selected sort order (up or down).

References

Viewing and Modifying Agent Preferences

Viewing Messages

Responding to Messages

Printing Messages

Composing Messages

Deleting Messages

Composing Messages

Use this procedure to compose new email messages.

Prerequisites

A valid login ID must be set up for you by the system administrator before you can send messages.

Steps

1. From the My Email Messages screen, click **Compose**.

    The Compose screen appears.

2. From the template bin on the upper left-hand side of hte screen, click the topmost template.

    The template is inserted into the email response.

3. If you wish to customize the email message, type the desired text in the response field.

4. If you wish to attach a document to the message, click **Attach**.

    A pop-up screen appears.

5. Navigate to the folder in which the desired document is stored and click the document.

6. Click **Open**.

7. Click **Attach**.

    The selected document name will appear below the email message

8. Click **To** to select the recipient of the email from your address list. If the recipient's address is not in your list, simply type it in the **To** field.

9. If you wish to copy another person on the email, click the **Cc** button and select the desired address from the list, or simply type it in the **Cc** field.

10. if youwish to customize the subject heading for the message, type a subject heading in the **Subject** field.

11. If you wish to customize the formatting of the message, select the desired text formatting options.

12. Click **Send** to send the message.

References

Viewing Messages

Responding to Messages

Selecting Text Formatting

eMail Center allows you to format your email message text in a wide range of fonts, font sizes, font styles, and colors.

Use this procedure to select text formatting for email messages.

Prerequisites

A valid login ID must be set up for you by the system administrator before you can format message text. To format text, you must either be responding to an email or sending a new email.

Steps

1. Click **Font Name** to select the font for your text. If you have already typed in a message, highlight the text before clicking **Font Name**.

2. Click the desired font from the drop down list.

    The selected font name appears on the **Font Name** button. If you highlighted text, the text switches to the selected font.

3. Click **Font Size** to select the font size for your text. If you have already typed in a message, highlight the text before clicking **Font Size**.

4. Click the desired font size from the drop down list.

    The selected font size appears on the **Font Size** button. If you highlighted text, the text switches to the selected font size.

References

Deleting Messages

Use this procedure to delete messages.

Prerequisites

A valid login ID must be set up for you by the system administrator before you can delete messages.

Steps

1. From the My Email Messages screen, click the checkbox in the **Select** column next to the message you wish to delete.

2. Click **Delete** to delete the selected message.

> **Note:** You can delete more than one message at a time. To do so, click the checkbox in the **Select** column next to each message you wish to delete, then click **Delete**.

References

Viewing Messages

Responding to Messages

Printing Messages

Composing Messages

Selecting Text Formatting

Cooperating With Other Agents

Use this procedure to cooperate with other agents when responding to an email.

Prerequisites

A valid login ID must be set up for you by the system administrator before you can cooperate with other agents.

Steps

1. From the Respond screen, click **Cooperate**.

   The Available Contacts screen appears.

2. In the Select an Agent field, type the name of the agent with whom you wish to cooperate and click **Go!**.

   > **Note:** The Available Contacts list displays the name and role of all available agents.

   The selected email message forwards to the designated agent.

References

Viewing Messages

Responding to Messages

Printing Messages

Composing Messages

Selecting Text Formatting

Implementing Oracle eMail Center

This section provides setup and configuration tasks required to successfully implement Oracle eMail Center.

This section covers the following topic groups:

- Planning the Implementation

- Integration Dependencies

- Post-Installation Steps

- Implementation

- Troubleshooting

Planning the Implementation

Implementing Oracle eMail Center is a complex process that requires knowledge of a variety of technologies and processes. Persons implementing Oracle eMail Center should have a working knowledge of Oracle Forms, HTML, Java, and the installation platform (Windows NT or Unix), in addition to an understanding of the operational requirements of an interaction center.

This topic group contains a diagram of the implementation process and an implementation planning questionnaire that will help you determine and collect information you will need during the implementation process.

The Implementation Process

The following diagram depicts the implementation process for eMail Center:

Planning the Implemenation	Integration Dependencies	Installation	Implementation/ Running eMail Center
Planning Questionaire	Oracle Email Server/ Internet Messaaging	Pre-install Steps	Create email accounts on the email server
	Oracle interMediaText	Auto Install	Create user accounts
	Oracle Telephony Manager and Rounting Server	Post Install	Define Email Server Accounts
	Work Blending		Configure eMail Center Properties
	Universal Work Queue		Create Classifications and Themes
	Interaction History		Configure Inbound Email Templates
	Forms Business Application/ Concurrent Manager		Configure Outbound Email Templates & Associates Queries
	Fulfillment Server		Upload Suggested Respnse Documents
	Knowledge Management Systems (SMS & MES)		Configure Email Processing Workflow

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:

1. Single instance (default) or multiple instances?

2. What email accounts need to be defined in OES?

   - These are the email accounts to which inbound email will be directed. Examples could be: support@company.com, info@company.com, promotions@company.com, sales@company.com, etc.

3. Which agents should be able to process emails directed to each account?

4. What agent groups need to be defined for each account?

5. For each account, what's the set of classifications that covers all emails?

   - These classifications are essentially labels for the buckets into which the customer wants to sort incoming emails. Classifications can be used to route individual emails to agents as well as select the appropriate responses from the knowledge base. Ideally, the subject matter in emails for each classification should be mutually exclusive and collectively exhaustive.

6. What are good sample messages for each classification?

   - Does the customer already have sample data? Do you need to create samples for classifications? Do the samples completely represent the different subject matter anticipated in emails belonging to the classification?

7. What are good sample responses for each classification?

   - Does the customer already have sample data? Do you need to create samples for classifications? Do the samples completely represent the different types of responses for the classification? Ideally, there should be at least one sample response for each sample message

8. Where is the customer's knowledge base data?

   - How do you upload this data into the Oracle knowledge bases (MES or SMS)? How should the data base be organized in MES (under what user defined categories within the eMC system defined partitions (Suggested Responses, Templates, etc.)?

9. What thresholds should be set for confidence scores on incoming message classification and suggested responses to trigger automated responses?

10. What static routing rules need to be defined?

   - What should be the destination agents / agent groups for each static route?

11. What dynamic routing procedures / workflows need to be developed?

    ■ What are the implementation details for creating the stored procedures / workflows?

12. What are the business requirements for processing unstructured emails?

    ■ What are the rules for automatically redirecting an incoming message to another account (on the same email server or a different one)? What are the rules for determining when to send an auto-acknowledgement and selecting the response for the auto-acknowledgement? What information from the CRM DB needs to be extracted to make processing decisions for an email message? What information should the system look for in the incoming message to use in rules processing?

13. What customer data needs to be displayed in the *e*MC Desktop Customer Profile area?

    ■ This data is retrieved from the desktop business application (Customer Care / Contact Center, Telesales, etc.)

14. What is the maximum number of suggested classification to be displayed in the *e*MC Desktop? (System maximum is seven)

15. What is the maximum number of suggested responses to be displayed for each suggested classification?

16. What MES categories should be searched to get suggested responses for each account?

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

    ■ From address, reply-to address, extended header tags, etc.

18. How should bounced messages and other responses to tagged emails be handled?

    ■ Responses routed directly to the agent who sent out the message, or routed according to the routing server rules? Notify sending application on message bounce / auto-response? etc.

19. What should be the default message format for outgoing messages (plain text, HTML, or both?)

20. What keywords or key phrases in the headers or contents of a message indicate that determine which eMC account a message belongs to?

- E.g., a message with the key phrase 'service request' belongs in the 'support' account, and if it was sent to the 'info@company.com' account it should be redirected to 'support@company.com'.

Integration Dependencies

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

- Email Server (OES/IM)
- interMediaText (iMT)
- Telephony Manager (OTM/MCM)
- Routing Server
- Work Blending
- Universal Work Queue
- Interaction History
- Forms Business Application
- Fulfillment Server
- Knowledge Management System (KMS)
- Concurrent Manager

Oracle Email Server (OES / IM)

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

The topics in this section describe the important sub-components of the Email Server, including:

- IMAP Server
- Message Store
- SMTP Server
- OES PL/SQL APIs

Known Limitations:

- Oracle eMail Center is tightly integrated with this product. Other Email Services, existing or new, must integrate with this product.

- Spam and Virus check features are currently missing.

- Email encryption/decryption features are missing in the OES release 5.1.x.

- Oracle interMedia Text's linguistic processing currently work only on English text. Other languages are being supported in the future releases.

Platform Dependencies:

- OES and its components are ported to most major platforms.

Configuration Options:

- Oracle eMail Center can integrate to multiple instances of OES. In some cases there will be multiple instances of OES Message store, which share a common IMAP server and SMTP components.

IMAP Server

OES implements the server section of the IMAP protocol. The server is mainly used by the IMAP implementation of JMA (middle tier) to access emails stored in the Message Store.

Message Store

The Message Store resides in an Oracle database (8.1.6), 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.

SMTP Server

Currently OES is bundled with the Sendmail's implementation of the SMTP protocol. Various options like third party spam and virus checks can be added to make a more robust system.

OES PL/SQL APIs

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

Oracle interMediaText (iMT)

Oracle interMedia Text is a text/linguistic-processing module bundled as a component of Oracle 8.x database. It is mainly used to determine the intent of each incoming email message.

Known Limitations

- Oracle interMedia Text's linguistic processing currently work only on English text. Other languages are being supported in the future releases.

- Only bundled with Oracle 8 and higher versions. Not available on earlier versions.

Platform Dependencies

- Ported to most major platforms.

Configuration Options

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

Oracle Telephony Manager (OTM/MCM)

The Oracle Telephony Manager maintains the agent distribution queues and agent states for any Interaction Center. It also provides access to a common routing engine. OTM is media independent and can route all types of interactions (email, telephony, faxes, web calls) to the call center agents.

Known Limitations

- Only one OTM server can exist per Interaction Center.

Platform Dependencies

- A Java Server; Runs on Solaris and NT platforms.

Configuration Options

- There is a 1:1 relationship between an OTM and an eMC Server; however, the rest of the eMail Center modules are shared.

Routing Server

The Routing Server determines which agent(s)/agent groups get a new interaction. The routing can be skill and/or rule based. The routes are defined for various classifications and parameters.

Platform Dependencies

- A Java Server; Runs on Solaris and NT platforms.

Work Blending

The Work Blending server determines the type (email, phone call, fax, etc.) of interaction an agent should service next. To make this determination, Work Blending obtains real time information about the agent from UWQ.

Universal Work Queue

UWQ Client and Server code work in unison to do the following:

1. Relay information between MCM and the Forms Application.

2. Capture certain information for statistical purposes.

3. Capture certain information for work blending purposes.

UWQ also works in conjunction with Work Blending to determine what type of interaction the agent should service next.

Platform Dependencies

- A Java Server; Runs on Solaris and NT platforms.

Interaction History (IH)

The Interaction History maintains all interaction life-cycle segments, i.e. accounts for the entire time duration beginning at the moment an Interaction (fax, phone call, email.) is registered in the system to the instant it is resolved. This is a cumulative record of all interactions passing through the system. It also records information about various agents who handled the interaction in the recorded time duration.

Forms Business Application

This can be any Oracle CRM Forms application (Oracle Service, Oracle TeleSales, Customer Care). These forms applications embed the UWQ client, enabling them to work with the Oracle eMail Center Desktop Client. This is done via Java socket communication between the UWQ client and the eMC Desktop Client. The business applications contain the necessary profiles and business intelligence.

Fulfillment Server

Fulfillment Server is a part of Oracle CRM Foundation. This service enables various applications to fulfill/complete various pending tasks. For eMail Center, this service enables eMC to automatically send out single and/or bulk emails.

Knowledge Management Systems (KMS)

At present, the Knowledge Management system consists of SMS and MES. All KMS interactions are channeled through the SMS system which exposes a single set of APIs hiding the complexity of the various sub-systems. Both PL/SQL and Java APIs exist to enable interMedia based queries and retrievals.

- Solution Management System
- Marketing Encyclopedia System

Platform Dependencies
- A database module; Oracle 8.x ported to most platforms.

Solution Management System (SMS)

A repository of problem, diagnosis, related symptoms and their solutions.

Marketing Encyclopedia Systems (MES/KB)

MES is also known as the Knowledge Base (KB). It is a repository of various documents, URL, images and such. MES is partitioned into various application spaces, each application (e.g Tele-Sales, Oracle eMC, etc.) can store documents, URLs, images and such in its own private space in this system. Various PL/SQL and Java APIs and a JSP UI exists to create/upload, list, categorize and order these entities.

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.

Platform Dependencies
- A database module; Oracle 8.x ported to most platforms.

Post-Installation Steps

Two post-installation procedures are necessary for the eMail Center server side. The first procedure consists of installing and configuring the Email Server. The second procedure involves installing and configuring the eMC Server. For the second process, you will need the *Oracle Call Center Applications Setup* CD.

Installing and Configuring Oracle Email Server (OES)

Installing and Configuring Oracle eMail Center Server (eMC)

Installing and Configuring Oracle Email Server (OES)

Use this procedure to install and configure Oracle Email Server.

Prerequisites
Before configuring the Email Server, you should complete the initial Rapid Install process. The Oracle Email Server documentation provides detailed instructions on installing Email Server with Rapid Install.

Steps

1. Install Oracle Email Server (OES) 5.1 (patchset 3) on the same or on a separate instance as the Oracle Applications Instance. Follow the instructions provided in the *Oracle Email Server Installation Guide* (Installing Oracle Email Server section). Oracle Email Server was formerly known as Oracle Internet Messaging (IM).

   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).

   Once the installation process is complete, you can configure the Oracle Email Server instance to talk with the Oracle Applications Instance.

2. Connect to the Oracle Email Server database instance with the **OO** user and password. Grant privilege on IM_IMT_EXTN to oraoffice.

   > **Note:** The default configuration is single instance. Single instance implies that Oracle Applications data and Oracle Email Server data reside in the same database.

3. 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).

4. 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 Oracle Email Server as user **OO** (using the **OO** password entered during Oracle Email Server installation) and use the following 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.

Installing and Configuring Oracle eMail Center Server (eMC)

Use this procedure to install and configure Oracle eMail Center Server (eMC Server).

> **Note:** Oracle eMail Center follows the Oracle standard for User Interfaces and the following field colors indicate:
>
> Yellow - required field
>
> White - optional field
>
> Grey - read only field
>
> Light blue - query mode

Overview

eMC Server is installed as part of the Call Center Applications installation process.

Prerequisites

Before you can create an eMC Server, you must create a Server Group for the eMC Server.

Perform the following steps to create a server group:

1. Open the Server Administration module from the Front Office Navigator, the Call Center Administration module, or the Routing Server Administration module.

   The Server Locator Window opens at the Server Group tab screen.

2. In the Server Group Registration area, enter the server **Group Name**, **Location**, and **Description**.

3. From the File menu, choose **Save**.

Steps

1. From the Self Service application login screen, login using the default system administrator user name and password.

2. From the list of application responsibilities, select **Call Center Server Administration**.

   The Call Center Server Administration module appears.

3. From the Call Center Server Administration module, double-click **UWQ Server Locator** (if it doesn't open automatically).

   The Server Locator screen appears.

4. From the Server Locator screen, click the **Server** tab.

5. In the Server Registration area, type data for the following fields:

   ■ Server Name

   ■ Server Location

   ■ Type Name - select **iCenter Server** from the drop-down list, click **OK**

   ■ Member Group Name - select the server group you want this server to belong to, click **OK**

   ■ Using Group Name - select the using group ID from the drop-down list, click **OK** This identifies other groups that have permission to use this server.

   > **Note:** DNS Name and IP Address will be automatically assigned after the eMC Server is run for the first time.

   ■ User Address - optional field, enter information if you wish

   ■ Description - optional field, enter information if you wish

   ■ Server Parameter - not required for configuring eMC Server

   ■ Value - not required for configuring eMC Server

6. From the File menu, click **Save**.

References

For detailed information on installing eMC Server, please refer to the *Oracle Call Center Applications Setup* documentation.

Refer to the *Oracle Telephony Manager Concepts and Procedures* documentation for detailed information on creating a server group.

Implementation

This topic provides a high level overview of the implementation process. This section is designed to furnish you with an overall idea of the order in which the implementation of Oracle eMail Center occurs. Each of the steps will be expanded upon in individual topics.

Prerequisites

The installation process must be completed before you can begin implementing eMail Center.

High-level Steps

1. Create Email Accounts on the Email Server

2. Create User Accounts

3. Define Email Server Accounts

4. Create an eMail Center Agent

5. Set up Routing for Inbound Email

6. Configure eMail Center Properties

7. Configure UWQ to Launch the Business Application

8. Create Classifications and Themes

9. Configure Inbound Email Templates

10. Configure Outbound Email Response Templates and Queries

11. Upload Suggested Response Documents

12. Use Email Processing Workflow

Creating Email Accounts on the Email Server

For detailed information about creating email accounts on the Email Server, refer to the Managing Directory Information chapter of the *Oracle Email Server Administration* documentation (Creating Email Server User Accounts section).

Creating User Accounts

Oracle eMail Center System Administrator Interface ships with four default responsibilities, eMail Center Administrator, eMail Center Operations Manager, eMail Center DBA, and eMail Center Client. The process of setting up an Administrator or Operations Manager and assigning the appropriate responsibilities consists of several steps.

> **Note:** You should have administrator level access to both the forms and the HTML based applications to perform these tasks.

1. Creating an employee (forms app)
2. Creating a user (HTML app)
3. Assigning user responsibilities (forms app)
4. Setting JTF default profiles (forms app)
5. Setting UWQ Profiles (forms app)
6. Setting CRM resources (forms app)

Step:	1	2	3	4	5	6
Admin	X	X	X	X		
Ops. Manager	X	X^t	X	X		X
DBA	X	X	X			
Agent	X	X	X	X	X	X^{tt}

[t] You need to assign JTF_ADMIN role

[tt] You cannot perform this step until the OES accounts are defined in eMail Center

> **Note:** You cannot create the agent account at this time. You must first define the email server accounts as shown in the Defining Email Server Accounts topic. Once you have defined the email server accounts, you can then create the agent accounts by following steps 1-6 above.

Creating an Employee With Oracle HRMS

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

Prerequisites

To perform the following steps, you must have Oracle HRMS installed and configured.

> **Note:** If you do not have Oracle Human Resources Management System installed, you will need to create the employee using the Oracle Resource Manager application.

> **Note:** If the employee already exists, you do not need to perform this step.

Steps

1. From the common CRM login screen, type the default system administrator user name and password.

   The CRM default screen appears.

2. Click the User tab.

3. Click the Add sub-tab.

   The User Registration screen appears.

4. On the User Registration screen, enter data for all required fields.

   - Select "End User" from the Account Type drop-down list

5. Click **Submit**.

> **Note:** Perform the following steps for creating the Operations Manager account ONLY.

6. Click the Assign Roles sub-tab.

   The Search User screen appears.

7. On the Search User screen, type the user name and click **Go!**.

   > **Note:** You can search all user names by performing a wildcard search instead of typing the full user name.

   The User Name table appears.

8. From the list of names, click the desired user name.

   The User - Role Mapping table appears

9. Select the **JTF_FM_ADMIN** role (this role allows integration with the Fulfillment console).

10. Click ">" to assign the above role to the user.

11. Click **Update**.

   > **Note:** Do not exit the application once you select roles!

Creating a CRM User

Use this procedure to create CRM users.

Steps

1. From the common CRM login screen, type the default system administrator user name and password.

   The CRM default screen appears.

2. Click the User tab.

3. Click the Add sub-tab.

   The User Registration screen appears.

4. On the User Registration screen, enter data for all required fields.

   ■ Select "End User" from the Account Type drop-down list

5. Click **Submit**.

   > **Note:** Perform the following steps for creating the Operations Manager account ONLY.

6. Click the Assign Roles sub-tab.

   The Search User screen appears.

7. On the Search User screen, type the user name and click **Go!**.

   > **Note:** You can search all user names by performing a wildcard search instead of typing the full user name.

   The User Name table appears.

8. From the list of names, click the desired user name.

   The User - Role Mapping table appears

9. Select the **JTF_FM_ADMIN** role (this role allows integration with the Fulfillment console).

10. Click ">" to assign the above role to the user.

11. Click **Update**.

    > **Note:** Do not exit the application once you select roles!

Assigning User Responsibilities

Use this procedure to link the user to the employee and to assign user responsibilities.

> **Note:** If you are already logged into the Oracle Forms application, click **File**, select **Switch Responsibility**, and select **System Administrator**. Otherwise, follow steps 1 and 2.

Steps

1. From the Self Service application login screen, login using the default system administrator user name and password.

2. From the list of application responsibilities, select the **System Administrator** responsibility.

   The Navigator System Administrator screen appears, displaying a list of functions.

3. From the list of functions, click **Security**, **User**, then **Define**.

   The User form appears.

4. Query each type of user and assign the appropriate responsibility to that user.

User Type	Responsibility
Administrator	eMail Center Administrator
Operations Manager	eMail Center Operations Manager
DBA	eMail Center DBA
Agent	eMail Center Client (agent interface)

   > **Note:** If you want the agent to be able to handle telephone calls, then select **Interaction Center Agent** as the responsibility.

   > **Note:** You can search all user names by performing a wildcard search instead of typing the full user name.

5. From the drop-down list in the Person field, select the name of the corresponding employee previously created in the *Creating an Employee* section.

> **Note:** Oracle recommends that only one user is assigned to each employee. It is possible, however, to assign multiple user IDs to an employee, even though you will receive warning messages.

6. From the File menu, click **Save**.

References

For more information on setting up the UWQ Selector and selecting agent work, refer to the *Oracle Universal Work Queue Concepts and Procedures* and *UWQ Selector GUI* documentation.

For more information on creating users, refer to the *Oracle Human Resources Management System (HRMS)* documentation.

Setting JTF Default Profiles

Use this procedure to set JTF default profiles.

Prerequisites

You must know the responsibility ID for eMail Center Administrator, Operations Manager and Agent before setting the JTF profile. To find the responsibility ID, perform the following steps:

1. From the Navigator System Administrator screen, click **Security**, **Responsibility**, then **Define**.

2. Query the desired responsibility based on the table below:

User Type	Responsibility
Administrator	eMail Center Administrator
Operations Manager	eMail Center Operations Manager
Agent	eMail Center Client (agent interface)

3. From the Help menu, click **Diagnostics**, then **Examine...**.

The Examine Field and Variable Values screen appears.

4. Click the drop-down list in **Field**.

The Choose a Field screen appears.

5. From the list in the Choose a Field screen, select the RESPONSIBILITY_ID.

6. Click **OK**.

The value of the RESPONSIBILITY_ID is displayed in the Value Field of the Examine Field and Variable Value screen.

7. Click **OK**.

Note: Repeat these steps for the Administrator, Operations Manager, and Client responsibilities.

Steps

1. From the Navigator System Administrator screen, click **Profile**, then **System**.

The Find System Profile Values screen appears.

2. From the Find System Profile Values screen, click **Clear**.

3. Click the User check box and from the drop-down list in the User field, select the user name.

4. In the Profile field, type **%JTF_PROFILE_DEFAULT%** and click **Find**.

A list of system profile values appears.

5. In the User column, set the following values for these profiles:

Profile	Value	Description
JTF_PROFILE_DEFAULT_ APPLICATION	680	eMail Center value for the application ID.
JTF_PROFILE_DEFAULT_ LANG	US	This is the language code. (It is possible that you may not have this profile. If this is the case, your language setting is controlled by the ICX: Language profile).
JTF_PROFILE_DEFAULT_ NUM_ROLES	15 (recommended)	This determines the number of rows you can see on each page when in browse mode.
JTF_PROFILE_DEFAULT_ RESPONSIBILITY		This is the value responsibility ID you obtained in the prerequisite steps.

6. From the File menu, click **Save**.

7. Repeat these steps for every user with the Administrator or Operations Manager responsibility.

Setting UWQ Profiles

Setting the following UWQ profiles controls the kind of work (telephone calls, email, etc.) that is queued for an agent.

UWQ profiles only need to be set for agent accounts. Use this procedure to set UWQ profiles.

Steps

1. From the Profile screen, type **%IEU%** in the Find field (this will search all profiles that start with IEU).

2. Click **OK**.

   A list of profiles appears.

3. From the list of profiles, select **IEU: Queue: Inbound Email**.

   > **Note:** The profile must be selected for the site level before selecting it for the agent level.

4. Click **OK**.

   The Inbound Email Profile appears in the System Profile Values screen.

5. From the drop-down list in the User field, select **YES**.

6. Save the record.

7. Repeat steps 3 through 6, selecting profiles for **IEU: Queue: Email** and **IEU: Blending Style**.

   > **Note:** For the **IEU: Blending Style** profile, select **Not Blended** from the drop-down list in the User field.

8. Save the record to complete the process of setting up UWQ profiles for the new agent.

Setting CRM Resources

These steps should only be performed to set CRM Resources for users with the Operations Manager and Agent responsibility.

Use this procedure to set the CRM resources.

Steps

1. From the Navigator System Administrator screen, click **File**, then **Switch Responsibility**.

2. Select the **CRM Administrator** responsibility.

    A screen appears, displaying a list of functions.

3. From the list of functions, double-click the **Resources Manager**.

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

5. Double-click **Import Resources**.

    The Selection Criteria screen appears.

6. From the Resource Category field, select **Employee**.

7. From the Name field, select the new employee's name.

8. 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.

9. Click **Create Resource**.

    The Default Values screen appears.

10. Click **OK**.

    The Selected Resource screen appears.

11. From the Selected Resources screen, click **Save Resource**.

12. Click **Detail**.

    The Resource screen appears.

13. Perform the following steps depending on the account type:

    For Operations Manager account(s):

- In the Roles tab, select **Marketing Encyclopedia** from the drop-down list for Role Type and select **MES Administrator** from the drop-down list for Roles (this allows integration with the MES application).

For Agent account(s)

- In the Interaction Center tab, select the desired interaction center you wish to associate with the eMail Center from the drop-down list in the Interaction Center field. From the drop-down list in the Email Account field, select the desired email account. Select **Default** from the drop-down list for the Parameter field and click the Value field to select the default values.

14. Accept the default values on the remaining tabs.

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

Defining Email Server Accounts

This topic group provides a high-level overview of the steps necessary to define Email Server accounts in the eMail Center System Administrator Interface, a worksheet for gathering all the necessary information, and detailed steps for performing each part of the defining Email Server accounts procedure.

> **Note:** The eMail Center System Administrator Interface is an HTML based console and is separate from the Oracle Applications forms based Admin console.

High-level Steps

Prerequisites
To perform the following steps, you must have an administrator level status.

High-level Steps
1. Create a Server Group entry.

2. Define an eMC Server entry and assign the eMC Server entry to the previously created Server Group.

3. Define an Email Db entry and assign this Email Db entry to the previously created Server Group.

4. Define one database link and create two others. You will define the link from OES to the Apps instance created earlier, and you will create two links to your Email Db (your Oracle Email Server database). One link for user <oraoffice> (synchronize accounts) and one for user <OO> (mail manipulator accounts). In a single instance scenario, the database link would be self-referencing.

5. Define an Email Server entry and assign this Email Server to the previously created Server Group.

> **Note:** You can choose to run your IMAP/POP and SMTP processes on the same machine as the Oracle Email Server or on a different machine. For detailed information, refer to the *Oracle Email Server Administration Guide.*

6. Enable the two queues (if they are not already enabled).

7. Create an account for every user.

> **Note:** For detailed information on creating entries in the Interaction Center drop-down list, refer to the *Oracle Universal Work Queue* (UWQ) documentation.

References

For more information on defining Email Server accounts, refer to the following documentation:

Oracle eMail Center Concepts and Procedures

Oracle Email Server Administration Guide

Oracle Universal Work Queue Concepts and Procedures

Defining Email Accounts Worksheet

Use the following worksheet to gather all the necessary information for completing the detailed tasks in the Defining Email accounts procedure.

Create Server Group

Group Name:_____ Group Description:_____

Create EMC Server

EMC Server Name:_____ IP Address:_____

DNS Name:_____ Group Server:_____

Create Email Database Server

Database Name:_____ Service Name:_____

Host Name:_____ Database Description:_____

Port:_____ RT Availability:_____

Protocol:_____ Group Server:_____

Database SID:_____

Create Database Link

Server:_____ User:_____

Name:_____ Password:_____

Create Email Server

Email Server Name:_____ RT Availability:_____

DNS Name:_____ Group Server:_____

IP Address:_____ Server Type:_____

Port:_____

Create Account

Name:_____   Email Server:_____

Domain:_____   Interaction Center:_____

Profile:_____

Define Server Group

Use this procedure to define the server group.

Steps

1. From the common CRM login screen (HTML), type the default system administrator user name and password.

   The eMail Center System Administrator Interface appears, displaying the Server tab screen.

2. From the Server tab screen, click the Group sub-tab.

   The Server Groups screen appears.

3. From the Server Groups screen, click **Create**.

   The Create Group screen appears.

4. Type a group name and a group description in the provided fields.

5. Click **Create** to save the record.

   The server group is created and you return to the Server Groups screen.

   Note: If you do not see your new server group displayed, use the **Next** and **Last** commands to locate it in the list.

Define eMC Server

Use this procedure to define the EMC Server.

Steps

1. From the Server Groups screen, click the EMC sub-tab.

   The EMC Servers screen appears.

2. From the EMC Servers screen, click **Create**.

   The Create EMC Servers screen appears.

3. Type the EMC server name, DNS name, and IP address in the provided fields.

4. From the drop down list in the Group Server field, select the server group you previously created.

5. Click **Create** to save the record.

   The EMC server is created and you return to the EMC Servers screen.

   > **Note:** If you do not see your new EMC server displayed, use the **Next** and **Last** commands to locate it in the list.

Define Email Database Server

Use this procedure to create the email database server.

Steps

1. From the EMC Servers screen, click the Email DB sub-tab.

   The Database Servers screen appears.

2. From the Database Servers screen, click **Create**.

   The Create Database screen appears.

3. Type the database name, hostname, port, protocol, SID, service name, description, and RT availability in the provided fields.

4. From the drop down list in the Group Server field, select the server group you previously created.

5. Click **Create** to save the record.

   The database server is created and you return to the Database Servers screen.

   > **Note:** If you do not see your new database server displayed, use the **Next** and **Last** commands to locate it in the list.

Create Database Links

Use this procedure to create database links.

Steps

> **Note:** You will need to perform these steps three times. First for the <oraoffice> user and then for the <OO> user, then to define the link going from OES to Apps that you created earlier.

1. From the Database Servers screen, click the DB Link sub-tab.

   The Database Links screen appears.

2. From the Database Links screen, click **Create**.

   The Create Database Link screen appears.

3. From the drop-down list in the Server field, select the server.

4. Type the name, user and password in the provided fields.

5. Click **Create** to save the record.

   The database link is created and you return to the Database Links screen.

   > **Note:** If you do not see your new DB LinkName displayed, use the **Next** and **Last** commands to locate it in the list.

Define Email Server

Use this procedure to define the email server.

> **Note:** You need to perform these steps twice. Once to define the IMAP server and once to define the SMTP server. IMAP is the protocol for the agent interface to talk to the server and SMTP is the protocol for communications across the internet.

Steps

1. From the Database Links screen, click the Email sub-tab.

   The E-mail Servers screen appears.

2. From the E-mail Servers screen, click **Create**.

   The Create E-mail Server screen appears.

3. Type the email server name, DNS name, IP address, port, and RT availability in the provided fields.

4. From the drop down list in the Group Server field, select the server group you previously created.

5. From the drop-down list in the E-Mail Server Type field, select the email server type.

6. Click **Create** to save the record.

   The email server is created and you return to the E-mail Servers screen.

   > **Note:** If you do not see your new email server name displayed, use the **Next** and **Last** commands to locate it in the list.

Enable Queues

Use this procedure to enable the queues.

Steps

1. From the E-Mail Servers screen, click the Queue tab.

   The Advanced Queues screen appears.

2. From the Select column, click the check box for the two desired queues.

3. Click **Enable** to enable the two selected queues.

4. Once you have enabled the queues, click **Refresh**.

   The Advanced Queues screen updates to reflect the new status for the selected queues.

Create Account

Follow the steps below to create the accounts you wish to have on your site (example: Classifications, or Support).

> **Note:** You will need to perform these steps for every account you wish to receive email.

Steps

1. From the Advanced Queues screen, click the Account tab.

   The Accounts screen appears, displaying information in table form for all current accounts.

2. Click **Create**.

   The Create Account screen appears.

3. Type the account information in the provided fields.

4. Once you have provided the required information, click **Create** to save the record.

   You are returned to the accounts screen and your new account is displayed in the table.

5. Repeat steps 2 through 4 for each account you wish to receive email.

Creating an eMail Center Agent

Once you have created your accounts on the Email Server, you can create your eMail Center agent user accounts. To create an eMail Center agent user accounts, follow the procedures provided in the Creating User Accounts topic.

> **Note:** To create an agent, you must first define the email server accounts.

Setting up Routing for Inbound Email

Follow the steps in the following chart to set up rules-based routing. The chart shows you where to read in detail about the setup step. The Window Names(s) column shows you in which window(s) you perform the step, and if the window is available only if you use a specific responsibility or product. The Required column shows you if the step is required, optional, required with defaults, or conditionally required.

High Level Steps

1. Define a group.

2. Define a route.

3. Define the route priorities.

4. Define the classifications.

Defining Groups

There are two types or groups for rules-based routing: static and dynamic. A static group requires that you manually edit information about individual group members. In a dynamic group, the database automatically updates information about individual group members.

For procedures, see:

- Defining a Static Group

- Defining a Dynamic Group

Defining a Static Group

Use this procedure to configure a static group for routing.

Prerequisites

None

Steps

1. Navigate to the Define Groups window.

   a. In the Navigator window, on the Functions tab, choose **Call Center Admin** > **Routing Server Administration**.

      The Routing Administration window appears.

   b. Click **Static Groups**.

      The Define Groups window appears.

Guidelines

When configuring static groups, use the following guidelines:

- The Group Number and Group Name must be unique.

- If you want to prevent an agent from being shared with other groups, check the Exclusive Flag box to indicate that the agent belongs exclusively to this group.

- You cannot create member records without choosing a Parent Group.

- When defining a static/dynamic group for Routing, the usage of the group should be set to 'Call Center' so that the group will be available in the Routing Admin LOV for static/dynamic groups.

Defining a Dynamic Group

Use this procedure to configure a dynamic group for routing.

Prerequisites

None

Steps

1. Navigate to the Dynamic Groups window.

   a. In the Navigator window, on the Functions tab, choose **Call Center Admin** > **Routing Server Administration**.

      The Routing Administration window appears.

   b. Click **Dynamic Groups**.

      The Dynamic Groups window appears.

2. If necessary, choose **File** > **New**.

3. Enter a unique name for the group.

4. From the Usage list, select the usage of the list.

5. Optionally, enter a description of the list.

6. Optionally, in the Active Dates area, select or enter the start and end date for the use of the group in routing.

7. Enter the SQL statement that selects the members of the group.

8. Click **Check Syntax**.

   If the SQL statement is invalid, then an error message appears. If the SQL statement is valid, then no message appears.

9. From the **File** menu, choose **Save**.

Guidelines

- When defining a static/dynamic group for Routing, the usage of the group should be set to 'Call Center' so that the group will be available in the Routing Admin LOV for static/dynamic groups.

Defining Routes

A route definition identifies the potential groups or members to which a call may be routed and the call parameters (such as ANI) to be used in determining the destination of a call.

There are two types of routes for rules-based routing: static and dynamic. Static routing is based on data stored in cache. Dynamic routing is based on PL/SQL queries. Static routing is faster, but dynamic routing is more flexible.

> **Note:** If the route server cannot determine agents from the defined destinations, then the server routes the message to the default destination defined for the route.

For procedures, see:

- Defining a Static Route
- Defining a Dynamic Route

Defining a Static Route

Use this procedure to define a static route.

Prerequisites

Define a group. For more information, see the Defining Groups topic.

Steps

1. Navigate to the Routing Administration window.

   a. In the Navigator window, on the Functions tab, choose **Call Center Admin** > **Routing Server Administration**.

The Routing Administration window appears.

2. If necessary, choose **File** > **New**.

3. In the Route Definition area, identify the route.

   a. Enter a unique name to describe the route.

   b. From the Route Type list, select **Static**.

   c. Optionally, enter the description of the static route.

   d. If this route uses the Oracle Applications database, select **Application Database**.

   e. If this route does not use the Oracle Applications database, select **Non Application Database** and enter the database driver and URL.

4. On the Route Destinations tab, select the groups to which calls may be routed.

5. On the Route Rules tab, define the parameters expected in an incoming call.

   a. From the Key list, select a key (for example, ANI).

   b. Enter the value for the selected key (for example, 888-555-1234).

6. From the **File** menu, choose **Save**.

Defining a Dynamic Route

Use this procedure to define a dynamic route.

Prerequisites

None

Steps

1. Navigate to the Routing Administration window.

   a. In the Navigator window, on the Functions tab, choose **Call Center Admin** > **Routing Server Administration**.

   The Routing Administration window appears.

2. If necessary, choose **File** > **New**.

3. In the Route Definition area, identify the route.

   a. Enter a unique name to describe the route.

    b. From the Route Type list, select **Dynamic**.

    c. From the Default Destination list, select the default destination to be use when the Routing Server cannot determine a destination based on the procedure parameters.

    d. Enter the description of the dynamic route.

    e. If this route uses the Oracle Applications database, select **Application Database**.

    f. If this route does not use the Oracle Applications database, select **Non Application Database** and enter the database driver and URL.

4. On the Route Destinations tab, define the procedure that is to be used to derive the destination for call.

    a. In the Dynamic Destination area, enter the name of the procedure (Package.Procedure) that is to be used to derive the destination for message.

    b. In the Procedure Parameters area, identify the parameters for the procedure.

    Sequence is a generated number that indicates the sequence of the parameter.

5. On the Route Rules tab, define the rules for the route.

    a. From the Key list, select a key (for example, ANI).

    b. Enter the value for the selected key.

6. From the **File** menu, choose **Save**.

Defining Route Priorities

You can define and change the priority of route definitions. Changing the value of a route priority affects the values of other route priorities. If you increase the value of a priority, then the priorities of all the routes with a value equal to or greater than the original value decrease by one. If you decrease the value of a priority, then the value of all the routes with a value equal to or less than the original value increase by one. For example, if you decrease 6 to 3, then 3 increases to 4, 4 increases to 5, and so on. If you increase 3 to 6, then 4 decreases to 3, 3 decreases to 2, and so on.

Use this procedure to set the priority for a route.

Prerequisites

None

Steps

1. Navigate to the Routing Priority window.

    a. In the Navigator window, on the Functions tab, choose **Call Center Admin** > **Routing Priority Administration**.

        The Routing Priority window appears.

2. From the Priority list, select a priority.

3. Click **Change Priority**.

4. From the **File** menu, choose **Save**.

Defining Classifications

Classifications specify how to identify and route particular types of messages that are associated with the selected Route ID. Classifications are of two types: literal and database procedure. A literal classification is a string. A database procedure classification is a stored procedure.

Classification rules can determine the route that a call must take, or a classification rule can designate a message as a classification for reports or for screen pops. Every classification must have rules that define the conditions under which the classification occurs. When a message meets all these conditions, the classification is the result and the message is routed accordingly.

A classification can have multiple rules associated with it. An individual route can have multiple destinations, which can be either static or dynamic. Every route has a sequence of a Key and a Value whose relationship is determined by one of the available Operations (=, !=, >, >=, <, <=).

If an incoming routing request results in a new classification, the new classification is added to the route request as one of the parameters. The server tries to find a new route based on this route request.

> **Note:** If you configure a classification rule that results in a new rule, then you will need a route that is defined for that new rule.

For example, if the classification rules in the preceding table result in adding the new classification rule CLASSIFICATION=GOLD to the classification request, then a new route is determined based on the new rule.

For procedures, see:

- Defining a Literal Classification
- Defining a Database Procedure Classification

Defining a Literal Classification

Use this procedure to define a literal classification.

Prerequisites

None

Steps

1. Navigate to the Classification Administration window.

   a. In the Navigator window, on the Functions tab, choose **Call Center Admin** > **Classification Administration**.

   The Classification Administration window appears.

2. If necessary, choose **File** > **New**.

3. In the Classification Definition area, define the classification.

   a. Enter a unique name to describe the classification.

   b. From the Type list, select **Literal**.

   c. Enter the maximum amount of time, in seconds, that the Routing Server should spend trying to determine the destination.

   d. If this classification uses the Oracle Applications database, select **Application Database**.

   e. If this classification does not use the Oracle Applications database, select **Non Application Database** and enter the database driver and URL.

4. On the Classification Rules tab, define the rules for routing based on the keys identified in the route definition.

   a. From the Key list, select a key.

   > **Note:** A key used in a classification rule must be the same as that identified in the route rules definition.

   b. From the Operation list, select an operator.

   c. Enter the value for the selected key.

5. From the **File** menu, choose **Save**.

Defining a Database Procedure Classification

Classifications specify how to identify and route particular types of messages that are associated with the selected Route ID. A database procedure classification is a stored procedure. The following conditions apply.

Prerequisites

None

Steps

1. Navigate to the Classification Administration window.

   a. In the Navigator window, on the Functions tab, choose **Call Center Admin** > **Classification Administration**.

   The Classification Administration window appears.

2. In the Classification Definition area, define the classification.

   a. Enter the name of the database procedure.

   > **Note:** The name of the classification is not verified against the stored procedures. Be sure to enter the correct procedure name.

   b. From the Type list, select **Database Procedure**.

   c. Enter the maximum amount of time, in seconds, that the Routing Server should spend trying to determine the destination.

   d. If this classification uses the Oracle Applications database, select
   Application Database.

   e. If this classification does not use the Oracle Applications database, select
   Non Application Database and enter the database driver and URL.

3. On the Classification Rules tab, define the rules for routing based on the keys
identified in the route definition.

   a. From the Key list, select a key.

   > **Note:**   A key used in a classification rule must be the same as that
   > identified in the route rules definition.

   b. From the Operation list, select an operator.

   c. Enter the value for the selected key.

4. On the Classification Parameters tab, identify the parameters for the database
procedure.

   a. From the Parameter list, select a parameter.

   b. From the Datatype list, select the data type of the parameter (for example,
   VARCHAR).

   c. From the Direction list, select the direction of the parameter (for example,
   IN).

   Sequence is a generated number that indicates the sequence of the
   parameter.

5. From the **File** menu, choose **Save**.

Configuring eMail Center Properties

Use this procedure to configure the properties for eMail Center. This procedure
provides the UWQ Server with the URL to launch the eMail Center agent interface
component. This step is only required when setting up the system for first time use,
or after changing the Apache server root.

Steps

1. From the common CRM login screen, type the default system administrator
user name and password.

The CRM default screen appears.

2. From the default screen, click the Advanced tab.

   The Advanced screen appears.

3. From the Advanced screen, click the Properties sub-tab.

4. From the View drop-down list on the Properties sub-tab, select **IEM**.

   A list of links should appear.

5. From the list, click the link **iem.base.url**.

   > **Note:** If the list of links does not appear after step 4, click **Create** and the Create Key screen appears. Type **iem.base.url** in the Key field and move on to step 6.

6. Type the Apache server system root URL in the Value field (e.g. http://www.visioncorp.com/)

   > **Note:** You must include the last slash (/) in the URL, as it is required.

7. Click **Update**.

   You return to the previous screen.

8. Click **Update** again to save all changes.

References

For more information, refer to the Administering Oracle eMail Center section of the *Oracle eMail Center Concepts and Procedures* documentation.

Use this procedure to configure the properties for eMail Center. This procedure provides the UWQ Server with the URL to launch the eMail Center agent interface component. This step is only required when setting up the system for first time use, or after changing the Apache server root.

Steps

1. From the common CRM login screen, type the default system administrator user name and password.

The CRM default screen appears.

2. From the default screen, click the Advanced tab.

    The Advanced screen appears.

3. From the Advanced screen, click the Properties sub-tab.

4. From the View drop-down list on the Properties sub-tab, select **IEM**.

    A list of links should appear.

5. From the list, click the link **iem.base.url**.

    > **Note:** If the list of links does not appear after step 4, click **Create** and the Create Key screen appears. Type **iem.base.url** in the Key field and move on to step 6.

6. Type the Apache server system root URL in the Value field (e.g. http://www.visioncorp.com/)

    > **Note:**   You must include the last slash (/) in the URL, as it is required.

7. Click **Update**.

    You return to the previous screen.

8. Click **Update** again to save all changes.

References

For more information, refer to the Administering Oracle eMail Center section of the *Oracle eMail Center Concepts and Procedures* documentation.

Configuring UWQ to Launch the Business Application

Follow the steps below to define the business application for Oracle Universal Work Queue to pop or start when emails are delivered to users.

Prerequisites

Any application that needs to be "popped" must be successfully installed, configured, and made available to UWQ. For more information on how to make a new application available to UWQ contact the UWQ Product Manager.

Steps

1. From the Self-Service (Forms) application, log in using an account that has access to the UWQ Administrator responsibility.

2. Double click the UWQ Administrator responsibility.

   The Media-Action-Classification-Association form appears.

3. Click the Media Type field and select the LOV.

4. Select a Media Type. (Example, Inbound Email).

5. Click the Classification field and type the classification for which you would like to associate the screen pop or Media Action.

6. Click the Media Action field and select the LOV.

7. Select Customer Care Media Function proc.

8. Repeat steps 5-9 to create additional Media Action Classification Associations.

Creating Classifications and Themes

Overview

Resolving interactions involves two major challenges:

- Understanding the intent of the communication. What is being requested or communicated?

- Determining the appropriate responses or actions necessary to resolve the interaction

These challenges can be answered by human intervention (an agent reads and responds), a semi-automated process that requires human assistance, or a fully automated analysis and response.

A fully automated process requires three processes:

- Beginning: Analyze the intent of the unstructured email message

- Middle: Classify the intent

- End: Suggest one or more responses to the message, based on the classification

Oracle eMail Center uses the iMT (interMedia Text) feature of the Oracle 8i database to analyze incoming email messages based on the linguistic properties of the various parts of the email, such as header, subject, and body. The term "classification" refers to the category under which the email should be classified. A good example of classifications for a hardware company would be Accessories, Service, Product Information, Installation, etc.

Each classification has a set of underlying theme signatures that are used by iMT to classify the email. Each theme signature for a classification has an associated score, which is used to order the classifications base on probability percentage.

This weighting methodology applies to theme signatures for responses as well. After a message is classified, eMail Center creates a search string based on the combination of the incoming message theme set and the response theme set. This search string is then used to query the MES database to retrieve the suggested response documents.

> **Note:** Please note the distinction between eMC classifications and the classifications derived by the routing server.
>
> - eMC classifications indicate the intent of a message.
> - Routing classifications are used in the UWQ GUI to display media items and may or may not relate to the intent of a message.
> - Routing classification can be the account name into which the email arrived.

Classifications and themes can be created in two ways:

- By sending email to a "classification" email account
- From the eMail Center Operations Manager console

Terms

Classification - the intent(s) of an email message.

Classification (as eMC sees it) - categories into which incoming email messages are sorted.

Classification Theme Signature - collection of themes and associated weights for the specified classification.

Response Selection Theme Signature - collection of themes and associated weights for responses to a specified classification.

Sample Message - a cleaned up message or piece of text whose contents are directly related to the characteristics of the classification.

Sample Response - cleaned up response or piece of text whose contents are directly related to the characteristics of responses for the classification.

Theme - keywords or phrases extracted from the text of the message or relative terms selected from the knowledge base.

Theme Signature - collection of themes and their associated weights.

Weight - signifies the relative importance of a particular word in a given theme.

Creating Classifications and Themes by Sending Email

Use this procedure to create classifications by sending email to the "classification" email account.

Prerequisites
A "classification" email account should be created on the Email Server and should also be defined in the eMail Center.

Steps
1. Send an email to the "classification" account you created with the subject line reading:

   <Classification Name><accountname@domainname><Q> OR

   <Classification Name><accountname@domainname><R>

The letters 'Q' and 'R' above indicate whether the classification and corresponding theme signatures generated are for the incoming message (Q) or the outgoing response (R).

For example, if you created an email account called "support" for handling all support related issues and if you want to create a classification called "hardware" to categorize all hardware support issues, the email would have the following the subject line.

<hardware><><Q> OR <hardware><><R>

Based on whether you append the letter 'Q' or the letter 'R ' to the subject line, the iMT will treat the email body as a sample inbound message or a sample response and generate themes with associated weights for the same.

> **Note:** If the classification name specified in the subject line already exists, then the theme's signatures (and their weights) will be updated for the existing classification based on the content of the email.

References

For detailed information on creating email accounts on the Email Server, refer to the Managing Directory Information chapter of the *Oracle Email Server Administration* documentation (*Creating Email Server User Accounts* section).

For detailed information on defining Email Server Accounts in the eMail Center, refer to the *Defining Email Server Accounts* section of the *Oracle Email Server Administration* documentation.

Creating Classifications from the Operations Manager Interface

Use this procedure to create classifications from the eMail Center Operations Manager Interface.

Steps

1. From the Oracle Applications Operations Manager screen, click the Classification tab.

   The Classification screen appears.

2. From the Classifications screen, click **Create**.

   The Create Classification screen appears.

3. In the Classification Name field, type the classification name.

4. From the drop down list in the Email Account field, select the email account.

5. Click **Create**.

   The classification is created and you return to the Classifications screen.

Creating Themes from the Operations Manager Interface

Use this procedure to create themes from the eMail Center Operations Manager Interface.

Prerequisites

The classification for which you are creating a theme must already be created.

Steps

1. From the Oracle Applications Operations Manager screen, click the Classification tab.

   The Classification screen appears.

2. From the Classifications screen, click the Themes sub-tab.

   A drop down list appears, displaying all of the existing classifications.

3. From the drop down list, select the classification for which you wish to create themes.

4. Click **Create**.

   The Create Themes screen appears, displaying the selected classification name.

5. In the provided fields, type the name and score for the theme you are creating.

6. From the drop-down list in the Type field, select the type of theme.

7. Click **Create**.

   The new theme is created for the selected classification and you return to the Classifications screen.

Configuring Structured Email Templates

Overview

eMail Center includes a set of structured email templates (web forms). Structured email templates are HTML documents placed on an enterprise's web server that can be filled out by a customer/prospect and result in the creation of a structured email when that customer/prospect clicks the Submit button. These templates can be used to leverage email as a tool to perform such tasks as create a service request, inquire about the status of service request, etc.

You can enable the included templates to submit email by pointing the HTML code for the templates to the correct web server and configuring the web server to handle the EmailGeneratingServlet. To do so, perform the tasks in the Modifying Existing Templates topic group below.

If the included templates are insufficient for your purposes, you can create your own custom templates. To do so, perform the tasks in the Creating Inbound Email Templates topic group.

Modifying Existing Inbound Email Templates

This topic group provides steps for modifying the templates included with eMail Center, including:

- Pointing the HTML Code to the Correct Web Server
- Configuring the Web Server to Handle the EmailGeneratingServlet

Pointing the HTML Code to the Correct Web Server

Use this procedure to point the HTML code for the templates to the correct web server.

Steps

1. Modify the following line of HTML code to point to the correct server:

   action="XXX/oracle.apps.iem.emailgen.EmailGeneratingServlet"

   (Where *XXX* is the full path of the folder where the servlets are stored on the web server. This path should include the machine name, port information and the folder information.

   For example: *http://ap040sun.us.oracle.com:8000/jsp/*

Configuring the Web Server to Handle the EmailGeneratingServlet

Use this procedure to configure the web server to handle the EmailGeneratingServlet.

Prerequisites
Before performing this task, your web server must be installed and configured to run JServ or its equivalent.

Steps

1. Add the following line in the zone.properties file of JServ:

    servlet.oracle.apps.iem.emailgen.EmailGeneratingServlet.initArgs=hostname =<HOSTNAME>,to=EMAIL@DOMAIN

    > **Note:** *HOSTNAME* refers to the name of the machine on which the SMTP server is running. *EMAIL* refers to the email account and *DOMAIN* refers to the domain on which the email resides.

Creating Structured Email Templates

Templates are the structured email means by which customers can contact your interaction center. They are designed to provide information to eMail Center in a particular format that allows eMail Center to determine how to process the form. Forms are created as either User Interface forms or HTML forms, and are created using virtually any HTML authoring application. Templates are created using any text authoring application.

Allowed HTML Form elements include:

- Buttons
- Check boxes
- Radio Buttons
- Menus
- Text Input
- Hidden Controls

Each form will present a different predefined structured email template; however, there must be a structured email ID tag hidden on each form. The look and feel of the page can be customized to suit your needs.

> **Note:** Applets, image files and Active X controls should not be part of the form.

Before creating UI forms, you should first determine two things:

- What is the purpose of the form?

Every organization (and often project) is different, having different needs when it comes to capturing and managing information.

The purpose of the web form could be one of the several things. For instance, to check the customer's order status or it could be a service request. Based on the purpose, the content of the form would change. For example, if the organization is a service oriented organization, the forms would contain fields that would capture the type of service requested by the user, and all the other associated information. If the organization were to be selling products, the forms would be populated with their product details and the user would be requested to select the various available products, quantity required, type of product requested etc.

■   What data must be captured to support processing?

The required data fields of the form are totally dependent on the calling applications data requirements.

Consider a service related situation. Capturing the customer account number or service request number or a product serial number would be vitally important. Capturing other useful information would be extremely helpful, but the ones that are mentioned above would be an absolute must, to ensure that the request is attended to by the eMail Center.

In a sales situation, capturing the customer's contact information and perhaps, what products they are interested in would help to route it through the concerned department and give a response back to the customer.

In the case of general service information, it is possible to have a new customer, in which case, their contact information, their questions, concerns etc., would have to be obtained.

High-level Steps

The following steps assume you are using a HTML authoring application for creating inbound email templates:

1.   Creating the title of the HTML form (template)

2.   Creating the form tag

3.   Create the hidden tag.

4.   Adding form elements.

5.   Adding validation logic.

Steps

1. Create the title of your HTML form (template).

Example for a service request form:

   <H2><u> Got a Problem?</u></H2>

   <H3>Use this handy form to submit a service request.</h3>

   <p>*Required Fields

2. Create the form tag.

In this example the form has the name submit_problem. The form tag should have an action and a method. The action refers to the Servlet to which the information from this form is submitted. The method is a post referring to the HTTP protocol used to transfer the information from this form to the Server. OnSubmit performs error checking to ensure that all the required fields are entered and in order.

   <form name="submit_problem"
   action="http://servername.yourcompany.com/servlets/oracle.apps.iem.emailg
   en.EmailGeneratingServlet" method= "post" onSubmit="return
   verifyfields(this)">

   </Form>

3. Create your hidden tag. A hidden tag with the following value format must be part of each form (without this tag, the Servlet would not be able to process the request):

   <EMAILTYPE>_<TYPE>_<SUBTYPE>

Tag	Value
EMAILTYPE	Used to indicate web-based or text. If an email is generated from web-based email client, EMAILTYPE will be "WEB". Otherwise its value will be "TXT".
TYPE	Denotes the request group, such as ORDER REQUEST or SERVICE.
SUBTYPE	Represents detail information about a request, such as CREATE or STATUS.

Example:

<input type="hidden" name ="tag" value = "WEB_SERVICE_CREATE">

Having created the form tag and hidden tag, follow the steps below to add form elements.

4. Create a table to format the other form elements in order.

   <table width = 100%>

5. Add the text input field to capture the email address.

   <td><blockquote><div align=right><b>Email Address<b></div></blockquote></td>

   <td>*<input type="text" name="emailadd" value="" size=20></td><td> </td>

The first column <TD> holds the label of the form element and the second column holds the input box where the user can enter the information. Most of the other fields in this form are also text fields and the syntax for those are given in step 6.

6. Add the remaining fields.

   <td><blockquote><div align=right><b>Your Name<b></div></blockquote></td>

   <td>*First Name

<input type="Text" name="firstname" value="" size="20" maxlength="20"></td>

   <td><div align=left>*Last Name

<input type="Text" name="lastname" value="" size="20" maxlength="20"></div>

7. Add the Submit and Reset buttons.

   <td colspan=3><center><input type=Submit value=Submit> <input type=reset value=Reset>

8. Close the table with a </table> tag.

Follow the steps below to add validation logic.

9. Add JavaScript Error Checking Code.

   Ideally, you should place the JAVASCRIPT code within the head tags, but it can also be placed anywhere within the page.

10. Validate your form.

> **Note:** Error checking for required fields is mandatory to ensure that a proper automated response is sent back to the customer. The nature of error checking would depend on the type of form that is being submitted.

Uploading Structured Email Templates in iSupport

The steps below assume that the customer has also purchased the Oracle iSupport application, through which the end-user will be able to submit an email via an inbound template. If you do not purchase the iSupport application, then you will need to open Windows Explorer and copy the structured email templates to the $IEM_TOP / html directory for your web server.

> **Note:** Since the templates (HTML files) are referenced and not physically stored in the application, the administrator should be aware of the exact location of these files on the web server.

Use this procedure to upload structured email templates into iSupport.

Prerequisites

Before performing this task, iSupport must be installed and you must have an administrator level login.

Steps

1. Login to Oracle iSupport as an administrator.

2. From the iSupport default screen, click the Email Templates tab.

3. From the Email Templates tab, click **Add Email Template**.

4. In the Template Name field, type the name of the template.

    > **Note:** Use a name that best describes the template.

5. In the Template Location field, type the location of the template.

> **Note:** Be sure to enter the full path (including the file name) for the location.

6. Click **Create**.

> **Important:** You can update the location of a previously loaded template, but you cannot update the name. To update the name of the template, you must first remove the existing template and upload the template again with a new name.

References

For more information on uploading inbound templates to iSupport, refer to the *Oracle iSupport* documentation.

Verifying The Template is Referenced Correctly

Use this procedure to verify that you have referenced the template correctly in iSupport.

Steps

1. Login to Oracle iSupport as an administrator.

2. From the iSupport default screen, click **Email**.

3. Select the template you wish to verify by clicking the corresponding check box.

4. Click **Continue**.

   The application should now be able to successfully display the contents of the template.

References

For more information on verifying the contents of the template in iSupport, refer to the *Oracle iSupport* documentation.

Configuring Automated Response Documents and Associated Queries

Overview

Automated responses to structured and unstructured inbound requests are handled by Oracle Fulfillment. Oracle Fulfillment is one of the CRM foundation products and should already be installed. The response documents in Fulfillment are referred to as "Master Documents", and they may or may not have a query associated with them. If the master document has one or more merge fields, then it should have an associated query to populate those merge fields. The number of columns in the select clause of the query should equal the number of merge fields in the master document.

This topic group contains the tasks necessary to create and configure outbound email response templates, including:

- Creating automated response documents
- Creating the associated query
- Uploading the automated response document and its associated query

Creating Automated Response Documents

You can create email forms and apply a query to generate a personalized outbound email. Automated response documents are created using any HTML editor. As stated earlier, prior knowledge of HTML is assumed here. Before creating an email template, you must identify the query containing the desired result set for the document. Release 11i of eMail Center will only support one query per email template; however, multiple email templates can use a single query.

The only dynamic content that eMail Center allows is the use of Merge fields and fragments. Merge fields were explained in the previous section. Fragments are zip files, which are stored in the MES tables.

The directory structure of the zip file must be organized in the following manner: place all HTML files and an images directory in the root. Place all associated images in the images directory.

Rules for Using Merge Fields and Fragments

A set of rules governs the use of both merge fields and fragments. The guidelines for using the merge fields and fragments are mentioned below.

1. HTML documents can be created following HTML standards. These documents should be in directory. That directory's structure should be a parent directory in which all the HTML files would reside, and an images directory in which all the associated images would be placed. The HTML files and an images directory with all the images associated with the HTML files would be zipped together and be available as a zip file. Release 11i 1-to-1 fulfillment will only support static images. This means images cannot be included in a HTML file as a merge field or as Fragments. Any image included in the HTML document needs to be in the images directory and the path of the image should point to the images directory. For instance, in the response to Please Call Me form, a reference to the oracle logo would be like:

   <img src="images/oraclelogo.gif">

   > **Note:** The HTML file and the images directory are in the same level. All associated images should reside in the images directory.

2. The list of available Merge Fields from the query will be in the file merge_fields.txt (or any other name that you gave) that you previously created using the create data source button. (As explained in the previous section- Getting bind variables for a Query).

3. Bind variable names are case sensitive. When bind variables are used, they should be used exactly as they are referred to in the file that was created earlier. Cutting and pasting the bind names from the file merge_fields.txt would solve the problem.

Rules for Creating Automated Response Documents

1. Merge fields must be surrounded by the following special tag and special characters.

   The tag that should surround the merge field is:

   « »

   Mergefield can be placed in the middle as shown in the following example:

   «**Mergefield**»

   The Mergefield place holder is highlighted. Bold letters indicates the special tags and special characters that enclose the merge field. The highlighted Mergefield is just a place holder. The actual Merge field should be placed there in the document.

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

2. If merge fields are embedded in an HTML table, the table can only have two rows. The first row must be the table header and the second row should hold the merge fields. In such an instance, the data must be repeated for the number of times the rows are returned by the query.

3. Fragments cannot contain merge fields inside them. Fragments are zip files containing HTML files and an image directory with all associated images placed under it. This directory structure must be maintained all the time.

4. The tags surrounding the fragments are:

    « »

    The Fragment ID would go in the middle as shown in the following example:

    «FragmentID»

Create an Associated Query

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

Prerequisites

Before performing this procedure, Oracle Fulfillment must already be installed.

Steps

1. From the common CRM Login screen, login as the Fulfillment administrator.

2. Click the Query tab.

3. Click **Create**.

4. In the "Create Query" screen, type in data for the following fields.

    *   Query Name - this name should be unique.

    *   Query Description - a brief description of the query.

    *   Query String - this is the SQL statement for the query. The number of fields in the "Select" clause should equal the number of merge fields in the master

document. Do NOT end the query with a ";" or "/", the standard SQL syntax to execute the query.

- Application Database - the database instance against which the query should be run.

- Application User Name - the userid of the account that should be used to run the query.

- Application Password - the password for the above userid.

5. Click **Create**.

> **Important:** Once you create the query, please note the Query ID number. You will need this ID number for the verification process.

Uploading Automated Response Documents and Associated Queries

Use this procedure to upload an automated response document in Oracle Fulfillment and associate a query (if required).

Prerequisites
Before performing this procedure, Oracle Fulfillment must already be installed.

Steps
1. Login to the CRM application as a fulfillment administrator.

2. Click the Template tab.

3. Click the Master Document sub-tab.

4. Click **Upload**.

5. Type the full path for the filename, or click **Browse** to browse through your local file system.

6. After selecting the file click **Upload**.

   A screen appears that alloys you to associate a query if required.

7. In the Description field, type a brief description about the document.

8. From the **Query** drop-down list select the associated query name. If you don't wish to associate any query select **No Query** which is also the default option.

9. Click **Upload** to complete the process of uploading a master document and associating a query to it.

Uploading Suggested Response Documents

Overview

Oracle eMail Center (eMC) uses the Marketing Encyclopedia System (MES) as its document repository. This topic group describes the process of uploading response documents into the response document repository (also referred to as KB or the knowledge base). MES stores documents under different categories.

eMail Center requires a category called "EMC Templates" to store the email templates. These templates are standard email responses that an agent may use to respond to an inquiry and should not be confused with the "inbound templates" or customer service web forms that are uploaded in iSupport. Currently, eMail Center ONLY searches the "EMC Templates" category for email templates and all available categories for suggested responses.

> **Important:** We are also assuming that the customer has purchased iSupport (for the purpose of uploading inbound email templates). If the customer has not purchased iSupport, they should be aware of steps that need to be performed to reference the standard set of templates provided by eMail Center on their web server.

High-level steps

1. Create the category in MES (only performed once).

2. Define a hierarchy among categories (only performed once).

3. Create a suggested response document.

4. Upload the documents into MES.

5. Verify the document was uploaded.

6. Create and upload an associated query (only if the document has merge fields).

7. Associate the suggested response document and the query.

References

For more information on MES categories, refer to the *Oracle Marketing Online* and *Oracle Marketing Encyclopedia System* documentation.

Creating a Category in MES

Use this procedure to create a category in MES for the response templates.

Prerequisites

You must have a valid administrator login account.

Steps

1. Login to Oracle Marketing Online application (which owns the MES repository) as an administrator.

2. From the default screen in Marketing Online, click the MES tab.

3. From the MES tab, click the Administration sub-tab.

4. From the MES Administration sub-tab, click **Category Manager**.

   The Category Manager screen appears.

5. In the provided fields, type the name of the new category and a description of it.

6. Click **Update**.

   Oracle Marketing Online creates the new category.

Defining a Hierarchy Among the Categories

Use this procedure to define a hierarchy among categories by creating sub-categories.

Prerequisites

Before you can define a hierarchy among categories, you must first create the categories as shown in the *Creating a Category in MES* topic.

Steps

1. Login to Oracle Marketing Online application (which owns the MES repository) as an administrator.

2. From the default screen in Marketing Online, click the MES tab.

3. From the MES tab, click the Administration sub-tab.

4. From the MES Administration sub-tab, click **Hierarchy Manager**.

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

5. From the list of child categories (on the right column), select the desired child category.

6. From the drop-down list in the Parent Name (left) column, select the corresponding parent category.

7. Click **Update**.

Oracle Marketing Online links the child category to the selected parent category.

Creating a Suggested Response Document

A suggested response document can be a Word or an HTML document that may or may not have merge fields. A merge field is a place holder, for a variable which gets automatically filled when a query associated with document is fired. The associated query is executed when a response document is selected. The merge fields need to be enclosed within special tags, "«", which can be entered by holding down the "Alt" key and typing "0171" on the numeric keypad (with the Num Lock Turned off), and "»", which can be entered by holding down the "Alt" key and typing "0187" on the numeric keypad (with the Num Lock Turned off). Example:

Dear «CP_FIRST_NAME» «CP_LAST_NAME»,

Thank you for your interest in «PRODUCT_NAME». This product will be released on «RELEASE_DATE».

Uploading Documents Into MES

Use this procedure to upload response documents into MES.

Prerequisites

Before you upload response documents into MES, you must first create a category.

Steps

1. Login to Oracle Marketing Online application (which owns the MES repository) as an administrator.

2. From the default screen in Marketing Online, click the MES tab.

3. From the MES tab, click the Publish sub-tab.

4. From the drop-down list in the Item Type field, select an item type.

> **Note:** For response documents, you should select the item type **File**.

5. In the provided fields, type a title, author name, and description.

6. From the drop-down list in the Content Type field, select a content type.

> **Note:** For response documents, you should select the content type **Master Document**.

7. Leave the Content Creation Date and Effective Start Date fields blank.

8. From the drop-down list in the Duration field, select **Permanent**.

9. Select a priority for the document.

10. Do not click the **Create distribution rules on publish** check box.

11. Click **Find**.

   The Find screen appears, displaying a list of the categories.

12. From the list, select the corresponding category.

> **Note:** You can expand the category tree by clicking the (+). Once the parent category expands, click the desired child category name to select it.

13. Click **Upload**.

14. Click **Browse** to browse through the file system.

15. From the file system, select the desired document.

16. Click **Open**.

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

17. Click **Attach File**.

   The file uploads. Once the file has fully uploaded, the File Name is no longer displayed.

> **Important:** Do not click any other button until the file has fully uploaded, or the upload process will fail. Also, if the response document contains one or more inline images, then please repeat steps 14 through 17 for every image file (.gif or .jpeg) that needs to be included in the response document.

18. Once the file uploads and the File Name disappears, click **Finished**.

    The file name should display under Files.

19. Click **Publish**.

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

> **Note:** 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.

Verifying the Document Uploaded Successfully

Use this procedure to verify the document successfully uploaded into MES.

Prerequisites

Before you verify the success of your upload, you must first complete all the steps in the *Uploading Documents Into MES* topic.

Steps

1. Login to Oracle Marketing Online application (which owns the MES repository) as an administrator.

2. From the default screen in Marketing Online, click the MES tab.

3. From the MES tab, click the Categories sub-tab.

4. Click the category name under which you uploaded your response documents.

   The name of the file and its description should appear. If not, go back and repeat the steps listed in the Uploading Documents Into MES topic.

Create an Associated Query and Upload it

You need to associate a query with a response document only if the document has merge fields that need to be filled automatically based on some input parameters. Refer to the *Create an Associated Query* section to create an associated query and upload it.

> **Note:** After uploading the query, click on the query name, now displayed in the table under the Query tab. Make a note of the QUERY ID for the query you just uploaded. You will need this ID to associate the query with the response document.

Associate the Suggested Response Document and the Query

To be able to associate the suggested response document and the query to expand the merge fields in the document, you will need to have the following data:

Document ID

Query ID (which you should have obtained by performing the steps in the section above)

To obtain the document ID, currently you have to run the following SELECT statement in SQL*Plus:

SELECT ITEM_ID

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 associate the suggested response document with the query, currently you have to run 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* is the document ID of the suggested response document obtained by running the SELECT statement above.

QUERY_ID is the ID of the uploaded query (noted when the query was uploaded)

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

USER_ID is the user ID for the account you used to log in, e.g. 11001

NULL values are inserted in the final three columns since they are not related to our product

Using Email Processing Workflow

A rules engine (error processing) needs to be setup to process unstructured email through eMail Center. The backbone of rules engine is created by using Oracle Workflow, which is a part of Oracle Applications 11i. The name of the workflow for unstructured eMail Processing is "Email Preprocessing". The rules engine must be configured onsite to cater to the various business rules and requirements of the client.

This topic group provides an overview of both unstructured and structured workflows, a high-level view of the steps involved in configuring operations for workflows, and detailed instructions for performing each of the configuration steps, including:

- The Unstructured Email Processing Workflow
- The Structured Email Processing Workflow
- Creating a Workflow Process

Error Processing

Errors that occur during eMail Center processing cannot be directly returned to the agent, since the agent and/or caller generally does not know how to respond to the error (in fact, eMail Center may be a background engine with no human operator). You can use Oracle Workflow Builder to define the events you want to occur in case of an error. Use Oracle Workflow Builder to modify the default error process associated with the process or create your own custom error process.

The error process can include branches based on error codes, send notifications, and attempt to deal with the error using automated rules for resetting, retrying, or skipping the failed activity. Once you define your error process you can associate it with any activity.

Defining Workflows

To build or modify workflows, you use the Oracle Workflow Builder application. Oracle Workflow Builder lets you create, view, or modify a business process with

simple drag and drop operations. Using the Workflow Builder, you can create and modify all workflow objects, including activities, item types, and messages.

Although unstructured and structured email processing workflows are referred to separately, there is only **one** workflow with multiple paths, one of which being structured.

Email Processing Workflow
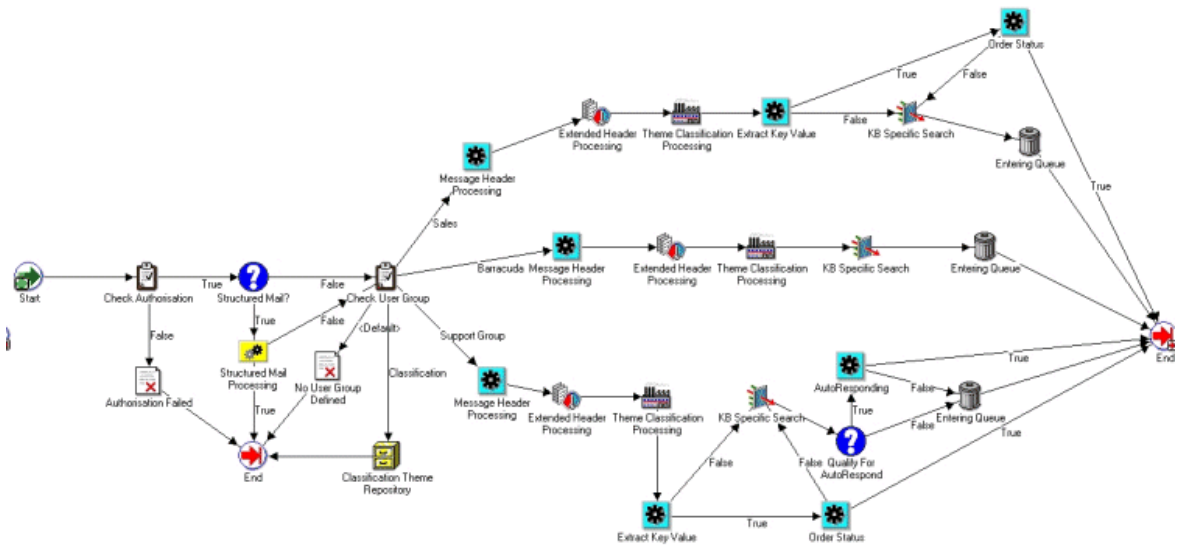
Terms to know

Activity - A unit of work performed during a business process.

Node - An instance of an activity in a process diagram as shown in the Process window.

Process - A set of activities that need to be performed to accomplish a business goal.

Workflow - A workflow is a processing path, consisting of a series of process nodes linked together to form paths that support a particular business rule or set of business rules.

The Unstructured Email Processing Workflow

The "Email Preprocessing" workflow contains some mandatory nodes, which must be setup to get messages processed and passed to the eMC server.

Note: These seven mandatory nodes must ALL be present in the workflow or the workflow will fail.

These mandatory nodes are:

Node Name	Function
Check Authorization	Checks whether the message coming for the user is a valid eMail Center user. If not, it discards the message.
Structured Mail?	Checks whether the message is structured or unstructured. If the message is structured, it calls the structured workflow processing.
Structured Mail Processing	Calls the structured workflow to process the message as a structured workflow.
Check User Group	Routes the message depending on the account for which it was sent. For example, if the message was sent to the "Support " account, then it branches to the path for Support.
Classification Theme Repository	Processes the classification and theme. Stores the query and response themes for each classifications.
Message Header Processing	Processes the message header.
Extended Header Processing	Processes the extended header.
Theme Classification Processing	Classifies the incoming message and extracts the themes.
KB Specific Search	Searches the knowledge base to retrieve related response documents.
Entering Queue	Places the message in a queue after Processing. eMC Server retrieves the message from this queue and processes it further.

The "Email Preprocessing" workflow also contains some nodes that are not mandatory, but are essential to enhance the functionality.

These nodes are:

Node Name	Function
Extract Key Value	Retrieves the service request number.
Order Status	Communicates between Fulfillment and eMail Center. Returns the response documents containing the service request status.
Qualify For Autorespond	Checks whether a auto-response from eMail Center should be sent or not depending on the attribute value "Threshold score". Depending on the value of the threshold score, if the top classification score for the message is achieved or exceeded, the Autoresponding node is triggered.
Autoresponding	Autoresponds to a sender with a set of documents having a score greater than the value of "Document Threshold Attribute".

The Structured Email Processing Workflow

Structured inbound email occurs when a customer completes a well defined form whose template was on a web site or received in an email message sent to the customer.

eMail Center has only one workflow for all that it does. The workflow, however, is comprised of paths for unstructured and structured inbound email. Earlier in this document, the unstructured workflow was shown with one path repeated several times to accommodate each user group.

In contrast, structured workflow has 12 different paths shown here, plus one path for invalid messages. Those 12 paths are labeled:

- New Customer

- Tell Me More

- Bug Report

- Service Request Status

- Call Me
- Customer Service Request (How may we help you?)
- Create Service Request (Got a problem?)
- Order Status
- Cancel Order
- Cancel Back Order
- Dispatch/Service Call Request
- Update Customer

All 12 paths share two common end points, one for success and one for failure. The invalid message path goes only to the failure end point.

Service Request Status (example)
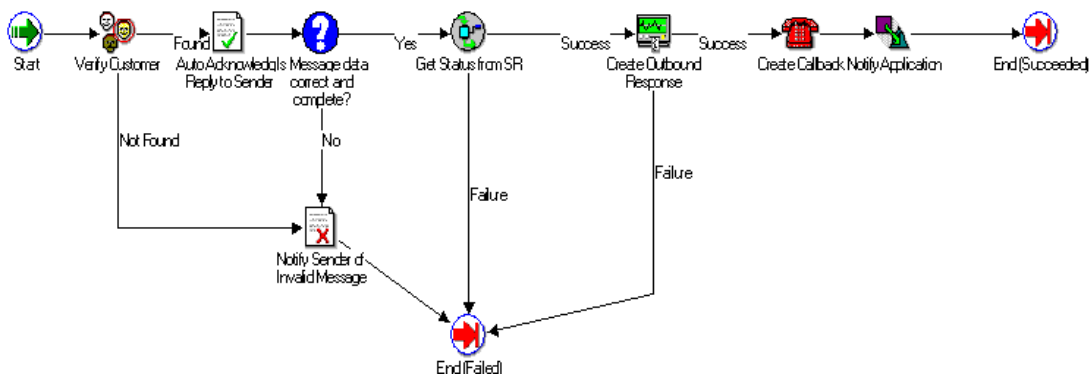
Structured Email Processing
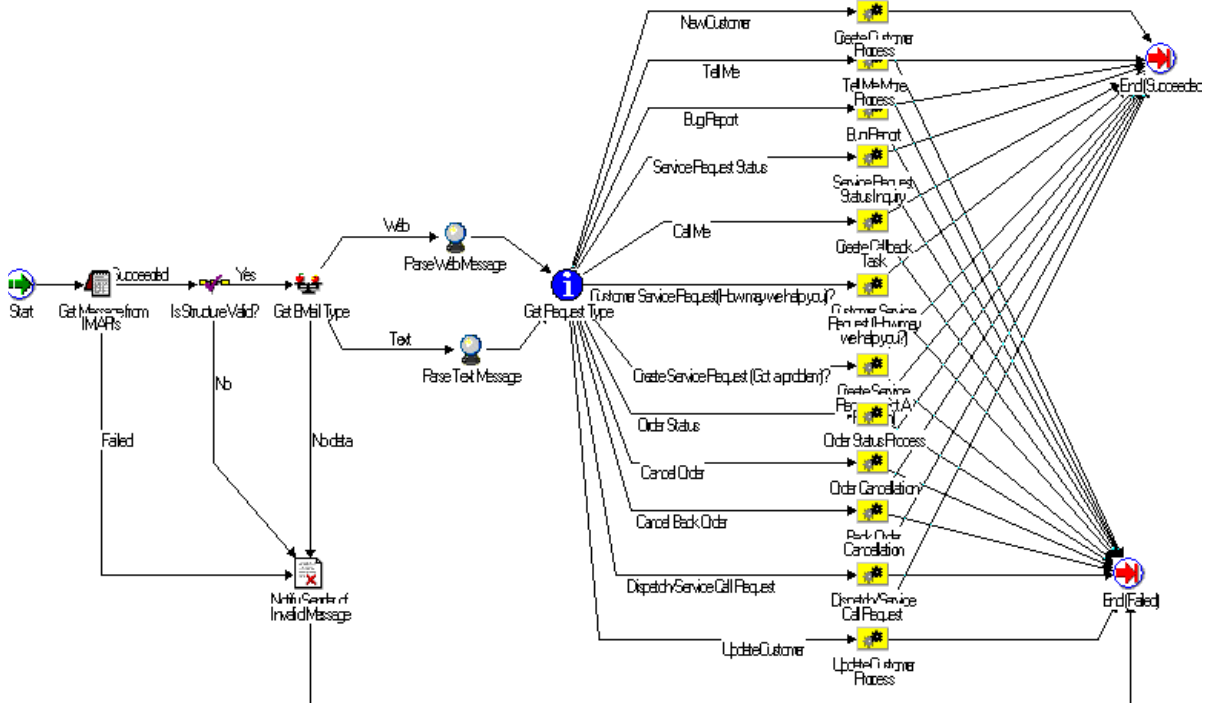
Node Name	Function
Get Message from IM APIs	Extracts the message content from the email server
Is Structure Valid?	Checks to see if the email is a structured email
Get Email Type	Checks to see if the email is web or text based
Is Message data correct and complete	Checks to see all the required data is complete and correct
Notify Sender of Invalid Message	Sends email back to sender if the email contains invalid data
Parse Web Message	Extracts the required data from the web based email

Node Name	Function
Parse Text Message	Extracts the required data from the text based email
Get Request Type	Extracts the type of request sent by the sender
Auto Acknowledge Reply to Sender	Sends an acknowledgment of receipt of the email request to the sender
Create Customer	Creates a new customer record in the database
Create Outbound Response	Sends the processed response back to the customer
Create Callback	Creates a record in the database for a call back
Notify Application	Indicates completion of the process
Verify Customer	Checks to see if the customer is a valid customer
Is it a lead?	Checks to see if the customer is a lead
Lead Capture	Creates a new lead in the database
Process Bug Report	Creates a new bug in the database
Get Status from SR	Returns the service request status from the database
Send Service Request Status	Sends the service request status to the customer
Create Callback Task	Creates a callback task in the database
Create Service Request	Creates a new service request in the database
Get Status from Order Capture API	Gets the status of the order from the database
Order Capture Order Cancellation	Cancels a previously placed order
Cancel the Back Order	Cancels a back ordered order
Process Dispatch Call Request	Creates a dispatch call
Update Customer Information	Updates the customer information in the database

Creating a Workflow Process

The following high-level steps comprise configuring workflow properties for using default workflow processes and/or creating the new workflow process or node:

1. Creating the Lookup Codes

2. Using a Node

3. Setting the User ID

4. Configuring the Global Attributes

For configuring the default unstructured workflow process, follow steps 1 and 4.

For configuring the default structured workflow process, follow steps 3 and 4.

For creating a new unstructured process, follow steps 1, 2, 3, and 4

For creating a new structured process, follow steps 2, 3, and 4

Creating the Lookup Codes

Lookup codes are used in the workflow to link the email accounts with their respective workflow paths or processes. eMail Center ships with a set of default Lookup Codes, such as Support. These lookup codes should match the email accounts created in the Email Server (Refer to Creating Email Server Accounts) and defined in the eMail Center (Refer to Defining Email Server Accounts). If the account name does not match the default lookup codes, follow the steps below to create a new lookup code.

Steps

1. Login to Oracle Workflow Builder.

2. Select process->**Mail Preproc**

3. Double-click the screen.

   In the Workflow Builder, Mail Preproc gets loaded.

4. From the Navigator screen of Oracle Workflow Builder, click **Lookup Type**.

5. Select **IM User Address**.

   A list of default lookup codes appears.

6. Right-click **IM User Address**.

7. Select **New Lookup Code**.

The Lookup Code screen appears.

8. Enter the following data:

    ■   Internal Name - this is the email account name that was created in IM and defined in the eMail Center. For example, you can enter "Marketing" for the Marketing account.

    ■   Display Name - this is the descriptive name that appears in the lookup code. (The Oracle Workflow Builder recommends that the Internal Name and Display Name are different).

9. Click **OK**.

Using a Node

This topic provides a high-level overview of the steps necessary to use nodes when building a workflow.

Steps

1. Login to Oracle Workflow Builder.

2. Select process->**Mail Preproc**

3. Double-click the screen.

    In the Workflow Builder, Mail Preproc gets loaded.

4. From the Workflow Builder navigator, select **Function**.

    All available nodes appear.

5. Drag and drop the desired nodes into the Process diagram.

6. Select either **TRUE** or **FALSE** for boolean return types.

7. Repeat steps 5 and 6 until you have made all desired changes to the workflow.

8. From the Workflow Builder main menu, select **Verify**.

    Workflow Builder checks the verification of the new workflow.

9. If the verification is successful, save the new workflow to the database.

Setting the User ID

Structured email processing responses come from the Fulfillment server, so you must be set up as a valid user in Oracle Fulfillment before you can receive a correct response.

The user ID is set up as a look up in the FND_LOOKUPS table and it is seeded there. The value of the user ID is retrieved using the following query:

select meaning

from fnd_lookups

where lookup_type = 'IEM_USERID'

To determine whether the value returned by the query is a valid fulfillment user, check the returned value with the fulfillment server. If not, you must change the value.

Configuring the Global Attributes

Use this procedure to customize the global attributes for structured and unstructured workflows.

Steps

1. Log in to the Oracle Workflow Builder as Oracle Applications User.

    The Show Item screen appears, displaying a list of items.

2. From the list of items in the Show Item screen, select **Email Preprocessing** for unstructured, or select **Structured Inbound Email Process** for structured.

3. Click **OK**.

    The Workflow Builder loads the workflow.

4. Configure the global attributes.

    - Set the following global attributes for unstructured:

Attribute Name	Value
Repository Name	Pre-seeded with 'SMS,MES'.
	If other repositories are required, they must be added here.

Attribute Name	Value
Application ID	Application ID that loaded, and therefore owns, documents into Marketing applications.
Extended Headers	Currently picking up five extended headers that come with a message. The headers are pre-seeded with the following values:
	Extended Header 1: MESSAGE-ID
	Extended Header 2: ORGANIZATION
	Extended Header 3: MAILER
	Extended Header 4: LANGUAGE
	Extended Header 5: CONTENT-TYPE
	These attributes are retrieved from the messages and passed to the eMC Server.
	These values can be changed to meet user requirements.
Value For Key	Pre-seeded with the phrase "service request number is". If this phrase appears in the message body, the customer is asking for a service request status.
	If customers want to send something different, this value must be changed.
Service Request User ID	Defines a valid fulfillment user ID.
	Before setting this value, check with the fulfillment service group to locate a valid user ID.
Service Request Document ID	Defines a valid fulfillment document ID.
	Before setting this value, check with the fulfillment service group to locate a valid document ID.

- Set the following global attributes for structured:

Attribute Name	Value
SR DOC ID	The service request document uses this attribute as an ID for returning the service request status.

Attribute Name	Value
CREATE SR DOC ID	The create service request document uses this attribute for returning the service request creation details.

Troubleshooting

This topic group describes ways of troubleshooting various problems that arise while installing, starting, and running Oracle eMail center. This chapter discusses problems in the following areas:

- Installation
- Configuration
- Starting
- Logging on
- Running
- Desktop
- Performance

Installation

IM_IMT_EXTN Error
If you experience an error during eMail Center workflow processing with this package (IM_IMT_EXTN), contact the Metalink for the necessary patch.

iMT Processing Error
Ensure that your LD_LIBRARY_PATH environment variable contains $ORACLE_HOME/ctx/bin for the external procedure LISTNER calls.

Configuration

Manual Step(s) in question?

Refer to the Implementation section on Modifying Existing Inbound Email Templates. Generally means that you have not added the config line to the zone.properties of your web server and/or pointed your HTML forms to the correct web server.

eMail Center does not function in a multiple-instance scenario

Oracle eMail Center can integrate to multiple instances. Refer to the *Post-installation Steps (Server Side)* section in this guide. The default is single-instance.

Classifications can not be created.

The classification account has not been configured and/or is improperly configured.

Starting

Unable to launch desktop

Check your system profiles.

Are your agent folders created?

Logging On

There are a variety of reasons why you may not be able to log on. You can use the JInitiator console to look at the process trail of events to determine why you were not able to log on.

Some of the possible problems with logging on include:

Unable to log on to Self Service Applications

Make sure that the Forms server and the database are up and running. Enable Jinitiator console for monitoring and if the error states ?Out of Memory?, clear the contents of the jcache directory. This directory is typically located in C:\Program\Files\Oracle\JInitiator\jcache

Unable to log on to CRM e-Business Suite

Make sure that the Apache server is up and running. Set up user and password correctly. Make sure that the System Profiles have been set up correctly.

Passwords are case-sensitive and you used the wrong case.

You forgot your password or you used an incorrect password. There is no way to determine your old password but your administrator can assign a new password.

Your account may not be properly configured. Your administrator can make required changes to your account configuration.

You were logged on but the system logged you off.

eMail Center allows only one log on per user, someone else may have used your log on.

Running

eMails not being processed

Make sure that the Oracle Email Server is up and running, EMC Server is running, MCM Server is running, UWQ is running

Not getting automated email responses

Check if the Fulfillment server is up and running, Master Documents are loaded in Fulfillment

Documents not being retrieved

Load documents into MES

No structured response generally means that the Fulfillment server is not running.

Template merge is incomplete

Two types of merge fields (straight-insert & query) are supported in the eMail CenterTemplate/Suggested Response Merge functionality. This error generally means that not all of the straight-insert data was available.

eMail failed to reach AQ1

This generally means that the IM db link does not exist. Refer to Implementation section of this document.

eMail fails to reach account inbox

This generally means that the email account (e.g. support@...) has not been configured to deliver emails to AQ1.

eMail goes to retry folder

This generally means that the concurrent manager is not running.

Unable to transfer message

This generally means that the other agent's folder(s) do not exist.

Themes are not being created

Refer to the *Creating Themes from the Operations Manager Console* section of this guide.

Customer Support/Universal Work Queue Selector not displayed

This generally means that the Forms server is not running and/or you do not have proper privileges.

Unable to display UWQ desktop

This generally means that JTF has updated the package and didn't follow the safe package spec. guidelines, causing dependent Forms to get out of sync. with the package. Rebuild all of the existing IEU Forms components (PLSs/PLLs and FMBs/FMXs) and this problem will go away.

Failed to launch HTML application

Generally means that the incorrect component is being specified.

Markup text does not work

Oracle interMediaText currently works only in English.

Markup text does not find relevant information

Tweak the linguistic processing module by customizing the theme. For additional information refer to *Oracle interMediaText (iMT)* documentation.

New eMail classification failed

Use sample messages for your classifications that completely represent the subject matter anticipated in emails belonging to the classification.

The auto response failed

Check your threshold settings for confidence scores on incoming message classification.

All classifications were not displayed

The system maximum is seven (7).

Desktop

Unable to compose/create message

Classifications are not being displayed.

The desktop failed to find your theme related documents. Verify that your documents are contained within the Marketing Encyclopedia systems repository. View your documents from the desktop MES tab.

Performance

The maximum system browser cache is inadequate for your memory

Clear your cache.

The desktop is partially displayed and/or you must scroll to view the entire desktop

Increase your display resolution to 1200 by 1000 and maximize displayed window.

Access speed depends largely on your network architecture and somewhat on your PC processor and memory.

New and/or modified workflow processes do not function and/or poorly perform and seem to hang

Verify your logic and query design. Isolate and analyze the suspected query. Create test cases.

Abbreviations

API - Application Programming Interface

CRM - Customer Relationship Management

eMC - Email Center

HTML - Hyper Text Markup Language

IEM - Product code for eMail Center

IH - Interaction History

IMAP - Internet Messaging Access Protocol

JMA - Java Mail API

JSP - Java Server Pages

JTF - CRM Foundation Layer

KB - Knowledge Base

KMS - Knowledge Management Systems

MCM - Multi Channel Manger

MES - Marketing Encyclopedia System

NLS - National Language Support

OES/IM - Oracle Email Server/Internet Messaging

OTM - Oracle Telephony Manager

SMS - Solution Management System

SMTP - Simple Mail Transport Protocol

URL - Universal Resource Locator

UWQ - Universal Work Queue

WWW - World Wide Web

Glossary

Apache - A third party web server

Applet - A Java program that runs in the Internet browser

Browser - Application that helps in accessing the Internet (Internet Explorer and Netscape)

Classification (email) - The main subject of the email

Client Desktop - The eMail Center email browser

Customer Care - Oracle Product

Distribute - Means that it puts the email into the queue of the agent or agent group that the router identified

Domain - Refers to the domain name in which the email resides

eMail Center - Oracle Product

Fulfillment - Oracle Product

Hostname - Refers to the name of the machine on which the SMTP server is running

interMedia Text - Oracle Product

iSupport - Oracle Product

Java - Programming Language

Knowledge Base - A repository of documents that can be queried

Multiple Instances - CRM and IM are installed in different databases

Response Template - The template that will be used to reply to customers

Single Instance - CRM and IM share the same database

Structured email - An email whose content and structure are known

Unstructured email - An free form email

Web Template - A web page that accepts user input and creates a structured email

Work Queue - A logical queue that holds each Agent's emails

Administering Oracle eMail Center Through the Admin Console

The Admin console allows you to:

- enable and disable advanced queues

-create, modify, or delete:

- accounts
- server groups

- EMC servers
- database servers
- database links
- email servers

This topic group covers the following topics:

Creating Agent Accounts

Viewing Account Information

Editing Account Information

Creating Server Groups

Modifying Server Groups

Deleting Server Groups

Creating EMC Servers

Modifying EMC Servers

Deleting EMC Servers

Creating Database Servers

Modifying Database Servers

Deleting Database Servers

Creating Database Links

Deleting Database Links

Creating E-Mail Servers

Modifying E-Mail Servers

Deleting E-Mail Servers

Enabling and Disabling Advanced Queues

Creating Accounts

Use this procedure to create accounts.

Prerequisites

You must have an administrator level login ID to be able to create accounts.

Steps

1. From the eMail Center Admin screen, click the **Account** tab.

   The Accounts screen appears, displaying information in table form on all current accounts.

2. Click **Create**.

   The Create Account screen appears.

3. Type the account information in the provided fields.

4. Once you have provided the required information, click **Create**.

   You are returned to the Accounts screen and your new account is displayed in the table.

References

Viewing Account Information

Editing Account Information

Viewing Account Information

Use this procedure to view account information.

Prerequisites

You must have a valid login ID to view account information.

Steps

1. From the eMail Center Admin screen, click the **Account** tab.

   The Accounts screen appears.

2. From the account information table on the Accounts screen, locate the account you wish to view.

3. From the Name column, double-click the desired account name.

   The Account Details screen appears and the detailed information for the selected account is displayed.

> **Note:** All fields with an asterix (*) next to the field name are required and must have information entered into them.

> **Note:** If you do not see your new account displayed, use the **First**, **Previous**, **Next** and **Last** commands to locate it in the information table. If the information table is large, use the quick find search feature.

References

Editing Account Information

Use this procedure to edit account information.

Prerequisites

You must have an administrator level login ID to be able to create accounts.

Steps

1. From the eMail Center Admin screen, click the **Account** tab.

   The Accounts screen appears.

2. From the account information table on the Accounts screen, locate the account you wish to view.

3. From the Name column, double-click the desired account name.

   The Account Details screen appears and the detailed information for the selected account is displayed.

4. Change the desired account information and click **Update**.

   The account information updates and you return to the Accounts screen.

> **Note:** You can delete changes by clicking **Restore**; however once changes are committed to the database, clicking **Restore** will no longer correct them.

References

Creating Agent Accounts

Viewing Account Information

Creating Server Groups

Use this procedure to create a server group.

Prerequisites

You must have an administrator level login ID to be able to create server groups.

Steps

1. From the eMail Center Admin screen, click the **Server** tab.

2. Click **Group**.

   The Server Groups screen appears.

3. From the Server Groups screen, click **Create**.

   The Create Group screen appears.

4. Type a group name and a group description in the provided fields.

5. Click **Create**.

   The server group is created and you return to the Server Groups screen.

   > **Note:** If you do not see your new server group displayed, use the **Next** and **Last** commands to locate it in the list.

References

Deleting Server Groups

Creating EMC Servers

Creating Database Servers

Creating Database Links

Creating E-Mail Servers

Enabling and Disabling Advanced Queues

Modifying Server Groups

Use this procedure to modify server groups.

Prerequisites
None.

Steps
1. From the eMail Center Admin screen, click the Server tab.
2. Click **Group**.

    The Server Groups screen appears.
3. From the Group Name column, double-click the desired server group name.

    The Server Group Details screen appears.
4. Modify the group name or group description as desired.
5. Click **Update**.

    The selected server group updates and you return to the Server Groups screen.

    > **Note:** You can delete changes by clicking **Restore**; however once changes are committed to the database, clicking **Restore** will no longer correct them.

Deleting Server Groups

Use this procedure to delete server groups.

Prerequisites
You must have an administrator level login ID to be able to delete server groups.

Steps
1. From the eMail Center Admin screen, click the **Server** tab.

2. Click **Group**.

   The Server Groups screen appears.

3. From the Remove column, click the checkbox for the server group you wish to remove.

4. Click **Update**.

   The selected server group is removed.

References

Creating EMC Servers

Use this procedure to create an EMC server.

Prerequisites

You must have an administrator level login ID to be able to create EMC servers.

Steps

1. From the eMail Center Admin screen, click the **Server** tab.

2. Click **EMC**.

   The EMC Servers screen appears.

3. From the EMC Servers screen, click **Create**.

   The Create EMC Servers screen appears.

4. Type the EMC server name, DNS name, and IP address in the provided fields.

5. Select the group server from the drop down list in the Group Server field.

6. Click **Create**.

The EMC server is created and you return to the EMC Servers screen.

> **Note:** If you do not see your new EMC server displayed, use the **Next** and **Last** commands to locate it in the list.

References

Creating Server Groups

Creating Database Servers

Creating Database Links

Creating E-Mail Servers

Enabling and Disabling Advanced Queues

Modifying EMC Servers

Use this procedure to modify EMC servers.

Prerequisites

You must have administrator level login to modify EMC servers.

Steps

1. From the eMail Center Admin screen, click the **Server** tab.

2. Click **EMC**.

   The EMC Servers screen appears.

3. From the EMC Server Name column, double-click the desired EMC server name.

   The EMC Server Details screen appears.

4. Modify the EMC server name, DNS name, IP address, and group server as desired.

5. Click **Update**.

   The EMC Server is updated and you return to the EMC Servers screen.

> **Note:** You can delete changes by clicking **Restore**; however once changes are committed to the database, clicking **Restore** will no longer correct them.

Deleting EMC Servers

Use this procedure to delete EMC servers.

Prerequisites

You must have an administrator level login ID to be able to delete EMC servers.

Steps

1. From the eMail Center Admin screen, click the **Server** tab.

2. Click **EMC**.

   The EMC Servers screen appears.

3. From the Remove column, click the checkbox for the EMC server you wish to remove.

4. Click **Update**.

   The selected EMC server is removed.

References

Deleting Server Groups

Creating EMC Servers

Deleting Database Servers

Deleting Database Links

Deleting E-Mail Servers

Enabling and Disabling Advanced Queues

Creating Database Servers

Use this procedure to create a database server.

Prerequisites

You must have an administrator level login ID to be able to create database servers.

Steps

1. From the eMail Center Admin screen, click the **Server** tab.

2. Click **Email DB**.

   The Database Servers screen appears.

3. From the Database Servers screen, click **Create**.

   The Create Database screen appears.

4. Type the database name, hostname, port, protocol, SID, service name, description, and RT availability in the provided fields.

5. From the drop down list in the Group Server field, select the group server.

6. Click **Create**.

   The database server is created and you return to the Database Servers screen.

   Note: If you do not see your new database server displayed, use the **Next** and **Last** commands to locate it in the list.

References

Creating Server Groups

Creating EMC Servers

Deleting Database Servers

Creating Database Links

Creating E-Mail Servers

Enabling and Disabling Advanced Queues

Modifying Database Servers

Use this procedure to modify database servers.

Prerequisites

You must have an administrator level login to modify database servers.

Steps

1. From the eMail Center Admin screen, click the Server tab.

2. Click **Email DB**.

   The Database Servers screen appears.

3. From the Database Servers screen, double-click the desired database server name.

   The Database Server Details screen appears.

4. Modify the database name, hostname, port, protocol, database SID, service name, database description, RT availability and group server as necessary.

5. From the Database Server Details screen, click Update.

   The database server is updates and you return to the Database Servers screen.

   > **Note:**   You can delete changes by clicking **Restore**; however once changes are committed to the database, clicking **Restore** will no longer correct them.

Deleting Database Servers

Use this procedure to delete database servers.

Prerequisites

You must have an administrator level login ID to be able to delete database servers.

Steps

1. From the eMail Center Admin screen, click the **Server** tab.

2. Click **Email DB**.

   The Database Servers screen appears.

3. From the Remove column, click the checkbox for the database server you wish to remove.

4. Click **Update**.

   The selected database server is removed.

References

Creating Database Links

Use this procedure to create database links.

Prerequisites

You must have an administrator level login ID to be able to create database links.

Steps

1. From the eMail Center Admin screen, click the **Server** tab.

2. Click **DB Link**.

    The Database Links screen appears.

3. From the Database Links screen, click **Create**.

    The Create Database Link screen appears.

4. Select the server from the drop down list in the Server field.

5. Type the server, name, user and password in the provided fields.

6. Click **Create**.

    The database link is created and you return to the Database Links screen.

    Note: If you do not see your new DB LinkName displayed, use the **Next** and **Last** commands to locate it in the list.

References

Deleting Database Links

Use this procedure to delete database links.

Prerequisites

You must have an administrator level login ID to be able to delete database links.

Steps

1. From the eMail Center Admin screen, click the **Server** tab.

2. Click **DB Link**.

   The Database Links screen appears.

3. Click the checkbox adjacent to the database link you wish to remove.

4. Click **Drop**.

   The selected database link is removed.

References

Creating Email Servers

Use this procedure to create email servers.

Prerequisites

You must have an administrator level login ID to be able to create email servers.

Steps

1. From the eMail Center Admin screen, click the **Server** tab.

2. Click **Email**.

   The E-mail Servers screen appears.

3. From the E-mail Servers screen, click **Create**.

   The Create E-mail Server screen appears.

4. Type the email server name, DNS name, IP address, port, and RT availability in the provided fields.

5. Select the group server from the drop down list in the Group Server field.

6. Select the email server type from the drop down list in the E-Mail Server Type field.

7. Click **Create**.

   The email server is created and you return to the E-mail Servers screen.

   Note: If you do not see your new email server name displayed, use the **Next** and **Last** commands to locate it in the list.

References

Creating Server Groups

Creating EMC Servers

Creating Database Servers

Creating Database Links

Creating E-Mail Servers

Deleting E-Mail Servers

Enabling and Disabling Advanced Queues

Modifying Email Servers

Use this procedure to modify email servers.

Prerequisites

You must have an administrator level login to modify email servers.

Steps

1. From the eMail Center Admin screen, click the **Server** tab.

2. Click **Email**.

    The E-mail Servers screen appears.

3. From the Server Name column, double-click the server name for the E-Mail Server you wish to modify.

    The E-Mail Server Details screen appears.

4. Update the E-Mail server name, DNS address, IP address, port, RT availity, group server and E-Mail server type as desired.

5. Click **Update**.

    The E-Mail Server is updated and you return to the E-Mail Servers screen.

    > **Note:** You can delete changes by clicking **Restore**; however once changes are committed to the database, clicking **Restore** will no longer correct them.

Deleting Email Servers

Use this procedure to delete email servers.

Prerequisites

You must have an administrator level login ID to be able to delete email servers.

Steps

1. From the eMail Center Admin screen, click the Server tab.

2. Click **Email**.

    The E-mail Servers screen appears.

3. From the Remove column, click the checkbox for the server group you wish to remove.

4. Click **Update**.

   The selected email server is removed.

References

Deleting Server Groups

Deleting EMC Servers

Deleting Database Servers

Deleting Database Links

Creating E-Mail Servers

Enabling and Disabling Advanced Queues

Enabling and Disabling Advanced Queues

Use this procedure to enable or disable advanced queues.

Prerequisites

You must have an administrator level login ID to be able to enable and disable advanced queues.

Steps

1. From the eMail Center Admin screen, click the Queue tab.

   The Advanced Queues screen appears.

2. From the Select column, click the check box for the desired queue.

3. To enable the queue, click **Enable**.

4. To disable the queue, click **Disable**.

5. Once you have enabled or disabled the desired queues, click **Refresh**.

   The Advanced Queues screen updates to reflect the new queue status.

References

Creating Server Groups

Administering Oracle eMail Center Through the Operations Manager Console

The Operations Manager console allows you to:

-create, modify, or delete:

- classifications
- queries
- datasource files
- templates
- master documents
- collateral

This topic group covers the following topics:

Creating Master Documents

Uploading Master Documents

Creating Classifications

Use this procedure to create classifications.

Prerequisites
You must have an administrator or operations manager level login to create classifications.

Steps
1. From the Oracle Applications Operations Manager screen, click the Classification tab.

   The Classification screen appears.

2. From the Classifications screen, click **Create**.

   The Create Classification screen appears.

3. Type the classification name in the Classification Name field.

4. Select the email account from the drop down list in the Email Account field.

5. Click **Create**.

   The classification is created and you return to the Classification screen.

Modifying Classifications

Use this procedure to modify classifications.

Prerequisites
You must have an administrator or operations manager level login to modify classifications.

Steps
1. From the Oracle Applications Operations Manager screen, click the Classification tab.

   The Classification screen appears.

2. From the Classification screen, click **Update**.

   The Update Classification screen appears.

3. Change the classification name and email account as desired.

4. Click **Update**.

   The classification is updated and you return to the Classification screen.

Deleting Classifications

Use this procedure to delete classifications.

Prerequisites

You must have an administrator or operations manager level login to delete classifications.

Steps

1. From the Oracle Applications Operations Manager screen, click the Classification tab.

   The Classification screen appears.

2. From the Remove column, click the checkbox for the classification you wish to remove.

3. Click **Clear**.

   The selected classification is deleted.

Creating Queries

Use this procedure to create queries.

Prerequisites

You must have an administrator or operations manager level login to create queries.

Steps

1. From the Oracle Applications Operations Manager screen, click the Query tab.

   The Queries screen appears.

2. From the Queries screen, click **Create**.

The Create Queries screen appears.

3. Type the query name, query description, query string, application database name, application user name, and application password in the provided fields.

4. Click **Update**.

The query is created and you return to the Queries screen.

> **Note:** If you do not see your new query displayed, use the **First**, **Previous Set**, **Next Set** and **Last** commands to locate it in the information table. If the information table is large, use the quick find search feature.

Modifying Queries

Use this procedure to modify queries.

Prerequisites
You must have an administrator or operations manager level login to modify queries.

Steps

1. From the Oracle Applications Operations Manager screen, click the Query tab.

The Queries screen appears.

2. From the Queries screen, click **Update**.

The Update Query screen appears.

3. Change the query name, query description, query string, application database, application user name, or application password as desired.

4. Click **Update**.

The query is updated and you return to the Queries screen.

> **Note:** If you do not see your updated query displayed, use the
> **First**, **Previous Set**, **Next Set** and **Last** commands to locate it in the
> information table. If the information table is large, use the quick
> find search feature.

Creating Datasource Files

Use this procedure to create datasource files.

Prerequisites

Before you create the datasource file, you must first create the query to which you
want to attach the file.

Steps

1. From the Oracle Applications Operations Manager screen, click the Query tab.

   The Queries screen appears.

2. From the Queries screen, click **Datasource** located directly under the Template
   tab.

   The Create Datasource file for query screen appears.

3. Select the desired query name from the drop down list in the Query Name field.

4. Click **Create**.

   The datasource file is created and you return to the Queries screen.

Creating Templates

Use this procedure to create templates.

Prerequisites

You must have an administrator or operations manager level login to create
templates.

Steps

1. From the Oracle Applications Operations Manager screen, click the Template
   tab.

The Templates screen appears.

2. From the Templates screen, click **Create**.

The Create Templates screen appears.

3. Type the template name, template description, and campaign in the provided fields.

4. Select the status from the drop down list in the Status field.

5. Click **Create**.

The template is created and you return to the Templates field.

> **Note:** If you do not see your new template displayed, use the **First**, **Previous Set**, **Next Set** and **Last** commands to locate it in the information table. If the information table is large, use the quick find search feature.

Viewing Templates

Use this procedure to view templates.

Prerequisites
None.

Steps

1. From the Oracle Applications Operations Manager screen, click the Template tab.

The Templates screen appears.

2. From the Template Name column, double-click the desired template name.

> **Note:** If you do not see the desired template name listed in the Template Name column, you can select the desired template from the drop down list in the View field.

The View Template screen appears, displaying the selected template.

Modifying Templates

Use this procedure to modify templates.

Prerequisites
You must have an administrator or operations manager level login to modify templates.

Steps

1. From the Oracle Applications Operations Manager screen, click the Template tab.

   The Templates screen appears.

2. From the Template Name column, double-click the desired template name.

   > **Note:** If you do not see the desired template name listed in the Template Name column, you can select the desired template from the drop down list in the View field.

   The View Template screen appears, displaying the selected template.

3. Modify the template name, status, template description and campaign as desired.

4. Click **Update**.

   The template is modified and you return to the Templates screen.

   > **Note:** If you do not see your updated template displayed, use the **First**, **Previous Set**, **Next Set** and **Last** commands to locate it in the information table. If the information table is large, use the quick find search feature.

Inactivating Templates

eMail Center does not allow you to delete templates; however, you can make templates inactive, thereby preventing them from appearing inside the client portion when responding to incoming email.

Prerequisites

You must have an administrator or operations manager level login to inactivate templates.

Steps

1. From the Oracle Applications Operations Manager screen, click the Template tab.

    The Templates screen appears.

2. From the Template Name column, locate the desired template name.

    > **Note:** If you do not see the desired template name displayed, use the **First**, **Previous Set**, **Next Set** and **Last** commands to locate it in the information table. If the information table is large, use the quick find search feature.

3. In the status column, select inactive from the drop down list in the status field for the template you wish to inactivate.

4. Click **Update**.

    The template's status changes to inactive.

Creating Master Documents

Master documents are not created in the Operations Manager GUI. Instead, they are created externally with a text authoring tool such as Microsoft Word, then uploaded to the Operations Manager GUI.

Prerequisites

You must have access to a text authoring tool to be able to create master documents. You mush have sufficient space on a hard drive (local or network) to store the master document once you've created it.

Steps

1. Open your text authoring tool and type the desired text for the master document.

2. Save the text file to a hard drive (local or network).

> **Note:** eMail Center accepts .txt, .doc, .pdf, .htm, and .zip file extensions.

Uploading Master Documents

Use this procedure to upload master documents.

Prerequisites

You must have access to a text authoring tool to be able to upload master documents.

Steps

1. From the Oracle Applications Operations Manager screen, click the Template tab.

   The Templates screen appears.

2. From the Templates screen, click **Master Document** (located directly under the tabs).

   The Master Documents screen appears.

3. From the Master Documents screen, click **Upload**.

   A browse window appears, allowing you to navigate to the drive, directory, and folder where you saved the file.

4. Select the desired file from the designated folder.

5. Click **OK**.

   The selected master document is uploaded and you return to the Master Document screen.